

CLASS 30, CUTLERY**SECTION I - CLASS DEFINITION**

(1) This is the broad generic class for cutting implements including those for cutting by a sharp point, which are manipulable by hand so as to be movable in their entirety relative to the work during the cutting operation as distinguished from moving the work relative to the cutter. Such implements may be power operated and the motive power means may be built into the structure of the cutting implement.

(2) This class also includes some special machines which are not hand manipulable, as above defined, namely, special machines and fixed cutters in which the work moves relative to the machine or cutter, since these structures are too closely related to the hand cutters to separate; see necked receptacle seal cutters, can openers, carton openers, cigar tip cutters, cord cutters, and segmenters. (See Subclass References to the Current Class, below.)

(3) This class also includes hand manipulable scrapers having a sharpened scraping or cutting edge.

(4) This class also includes culinary and table forks and spoons due to their close relation to knives in use and manufacture.

(5) Many hand manipulable cutters under the above definition have not been placed in this class. Their location is set forth in the notes appended to the definitions of this class and the subclasses thereunder.

(6) Many hand manipulable instruments having structure for cutting and in addition structure for performing other functions, such that the combination is restricted to some special art use, are not in this class but with the appropriate art class, as set forth in References to Other Classes, below.

SECTION II - LINES WITH OTHER CLASSES AND WITHIN THIS CLASS

Search Notes fall into the following categories:

(1) KNIVES: Hand manipulable.

See Subclass References to the Current Class, below, and References to Other Classes, below.

(2) ABRADING MACHINE OR TOOL:

See Subclass References to the Current Class, below.

(3) BORING OR DRILLING MACHINES AND IMPLEMENTS:

(4) CUTTING BY HEAT:

(5) CHISELS:

(6) FILES AND RASPS:

(7) PLANING OR SHAVING MACHINES AND IMPLEMENTS:

(8) SAWS:

(9) TOOL HANDLES AND FASTENINGS THEREFOR:

(10) TOOL CLASSES:

(11) OTHER MAIN SEARCH CLASSES:

Attention is directed to classes comprised largely of cutting machines. See References to Other Classes, below.

For machines and implements having cutting features and in addition other structure limiting them to the art use, see References to Other Classes, below.

For Cutlery designs see References to Other Classes, below.

(12) Miscellaneous notes and index to all notes to the class definition:

See References to Other Classes, below.

SECTION III - SUBCLASS REFERENCES TO THE CURRENT CLASS

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 1.5, for necked receptacle seal cutters.
- 2, for carton openers.
- 35+, for the combination of a razor of this class with an accessory sharpener therefor.
- 109+, for cigar tip cutters.
- 114, for segmenters.
- 123 and 408, for knives combined with other things including other forms of cutlery.
- 138+, for the combination of a cutter device, generally, with an accessory sharpener therefor.

140, search this subclass and notes thereunder.
 143 and 151+, for pocket knives and other knives foldable or retractable into a handle or otherwise sheathed.
 165, 272.1 through 321, and 329 through 357 for other types of knives.
 168, search this subclass and notes thereunder.
 166.3, search this subclass and the notes thereunder.
 290 and 296.1, for cord cutters.
 340, search this subclass and the notes thereunder.
 400+, for can openers.

SECTION IV - REFERENCES TO OTHER CLASSES

SEE OR SEARCH CLASS:

7, Compound Tools, subclasses 118+ and 167+, when combined with some tool other than a tool defined as coming within this class (30). Pocket knives and other knives foldable or retractable into a handle or otherwise sheathed are in Class 7. See (1) KNIVES: Hand manipulable.
 132, Toilet, subclasses 75.6 and 76.4 for a manicuring abrader, file, or buffer. See (2) ABRADING MACHINE OR TOOL:
 451, Abrading, for a tool which cuts by the abrasive action of a natural cutting media (e.g., the sharp edges of randomly positioned crystals) as distinguished from an "artificial" cutting edge such as is formed on a file, milling tool, knife, shear, etc. Class 30 takes a blade holder designed to hold a specific blade relative to a stone or strop, generally. Class 451 takes a blade holder, generally; and takes a blade holder designed to hold a specific blade relative to a stone or strop only when including a "special feature" which renders the holder unsuitable for use with a general purpose knife. Examples of a "special feature" are: (1) Means for reversing a blade relative to a strop or abrading stone, (2) An opening or guide in a blade support or guide to determine the relationship of the blade to a strop or stone, (3) Means at or in front of the cutting edge to prevent improper contact between a blade edge and a strop or stone. Search particularly subclasses 419+ for an abrading device intended to be attached to a cutting machine where no significant feature of the cutlery device is claimed. Search subclasses 45+ for a process of sharpening a razor, knife, or scissors. See (2) ABRADING MACHINE OR TOOL.

29, Metal Working, particularly subclass 26. See (3) BORING OR DRILLING MACHINES AND IMPLEMENTS.
 79, Button Making, particularly subclasses 6, 11 and 14. See (3) BORING OR DRILLING MACHINES AND IMPLEMENTS.
 144, Woodworking, see (3) BORING OR DRILLING MACHINES AND IMPLEMENTS.
 175, Boring or Penetrating the Earth, see (3) BORING OR DRILLING MACHINES AND IMPLEMENTS.
 299, Mining or In Situ Disintegration of Hard Material, appropriate subclass. See (3) BORING OR DRILLING MACHINES AND IMPLEMENTS.
 300, Brush, Broom, and Mop Making, particularly subclass 3. See (3) BORING OR DRILLING MACHINES AND IMPLEMENTS.
 408, Cutting by Use of Rotating Axially Moving Tool, appropriate subclasses, for methods, apparatus, implements, or tools for cutting in the manner of that class. See (3) BORING OR DRILLING MACHINES AND IMPLEMENTS.
 62, Refrigeration, subclasses 320+ for refrigerating means or a refrigerated mold having means for comminuting or cutting the product. See (4) CUTTING BY HEAT.
 148, Metal Treatment, particularly subclass 194 for processes of chemical-heat removing (e.g., flames cutting, etc.) or burning (i.e., oxidizing) of a metal workpiece. See (4) CUTTING BY HEAT.
 175, Boring or Penetrating the Earth, subclasses 11+ for processes or means for earth boring or penetrating by directly applying heat to fluidize or comminute the material of the earth. See (4) CUTTING BY HEAT.
 219, Electric Heating, subclasses 68+ and 384 for cutting or disintegrating by the use of electric energy applied to the workpiece. See (4) CUTTING BY HEAT.
 266, Metallurgical Apparatus, subclasses 48+. See (4) CUTTING BY HEAT.
 12, Boot and Shoe Making, subclasses 41.7 and 104.5. See (6) FILES AND RASPS.
 29, Metal Working, subclass 76.1. See (6) FILES AND RASPS.
 132, Toilet, subclasses 75.6 and 76.4. See (6) FILES AND RASPS.
 168, Farriery, subclasses 48.1+. See (6) FILES AND RASPS.
 433, Dentistry, subclass 144. See (6) FILES AND RASPS.

- 29, Metal Working, particularly subclass 30. See (7) PLANNING OR SHAVING MACHINES AND IMPLEMENTS.
- 125, Stone Working, particularly subclass 9. See (7) PLANNING OR SHAVING MACHINES AND IMPLEMENTS.
- 144, Woodworking, particularly subclasses 114.1+ for a woodworking planer, subclasses 2.1+ for a special woodworking machine, and subclasses 1.1+ for a combined woodworking machine. See (7) PLANNING OR SHAVING MACHINES AND IMPLEMENTS.
- 147, Coopering, particularly subclass 33. See (7) PLANNING OR SHAVING MACHINES AND IMPLEMENTS.
- 241, Solid Material Comminution or Disintegration, appropriate subclasses for shaving machines for reducing a solid mass to smaller particles. See section 12 of the main class definition of Class 241 for the line. See (7) PLANNING OR SHAVING MACHINES AND IMPLEMENTS.
- 299, Mining or In Situ Disintegration of Hard Material, subclass 34.01 and see the search notes therein for a hard material disintegrating machine having a planer type cutter. See (7) PLANNING OR SHAVING MACHINES AND IMPLEMENTS.
- 409, Gear Cutting, Milling, or Planing, subclasses 288+. See (7) PLANNING OR SHAVING MACHINES AND IMPLEMENTS.
- 470, Threaded, Headed Fastener, or Washer Making: Process and Apparatus, appropriate subclass. See (7) PLANNING OR SHAVING MACHINES AND IMPLEMENTS.
- 7, Compound Tools, the miscellaneous class for combinations of two or more tools. See (10) TOOL CLASSES.
- 76, Metal Tools and Implements, Making, subclasses 12+ for forming cutting ribs in a file or rasp, subclasses 82+ for a cutting device for sharpening a tool, and subclasses 104.1+ for a blank for or process for making cutlery. See (10) TOOL CLASSES.
- 81, Tools, the generic class of hand manipulable tools, particularly subclasses 9.4+ for tools for stripping insulation from cables or conductors which have cutters and also structure performing additional functions, and subclasses 181+ for wrenches combined with or convertible to cutters where the parts which operate the jaws of the wrench also apply pressure to the cutters. See (10) TOOL CLASSES.
- 294, Handling: Hand and Hoist-Line Implements, for implements for engaging or supporting articles or materials for handling or manipulating purposes. See (10) TOOL CLASSES.
- 26, Textiles: Cloth Finishing, subclasses 7+ for cutting devices particularly designed for use in cloth finishing operations, particularly subclasses 15+ for devices for shearing the surface fibers of cloth and fur, including hand manipulable tools, and see Note (29). See (11) OTHER MAIN SEARCH CLASSES.
- 56, Harvesters, for hand manipulated or operated cutters having additional claimed structure specially useful for harvesting purposes, such as wheels or runners for guiding them a definite distance from the ground, or means for catching produce. Other hand manipulable cutters not having such additional means are in this class (30). Particular attention is called to the following subclasses in Class 56: subclasses 233+ for hedge trimmers having means to guide the cutter in a definite path relative to the hedge; subclasses 328.1+ for fruit gatherers having cutters and also means other than a mere stem gripping means, for holding or catching the fruit. The devices in Class 30 which may be used for harvesting purposes are structurally classified, for example, as shears, subclasses 194+, scythes, subclass 309; swinging stroke cutters, subclass 318, etc. See (11) OTHER MAIN SEARCH CLASSES.
- 83, Cutting, and see section III of the class definition for the line between these classes. See (11) OTHER MAIN SEARCH CLASSES.
- 433, Dentistry, and 128, Surgery, for cutting implements specially designed for dental and surgical use, particularly Class 433, subclasses 144+, and Class 606, subclasses 167+. Mere knives, even though called surgical knives, are in this class (30). See (11) OTHER MAIN SEARCH CLASSES.
- 452, Butchering, particularly subclasses 4, 6, 63+, 102+, 120+, 132+, 137, 148, 160+, 166+, and 171 for hand manipulated cutting tools specifically adapted and solely disclosed for use in the slaughtering or dressing of meat or fish and subclasses 145-147 for hand held meat tenderizers not having a continuous cutting edge so as to adapt them to a more general use as a cutter. See (11) OTHER MAIN SEARCH CLASSES.
- 82, Turning, for pertinent subclass(es) as determined by schedule review.

- 99, Foods and Beverages: Apparatus, subclasses 537+ for a food cutting machine of that class (99) type wherein there are two specifically distinct portions of a food item.
- 142, Wood Turning, where a base or work support has means for locating or guiding a hand manipulable instrument, the combination has been construed to be a machine. If it is not the type of machine classified in this Class (30), (see paragraph 2 of this class definition), it will be found in the appropriate machine class.
- 144, Woodworking, Where a base or work support has means for locating or guiding a hand manipulable instrument, the combination has been construed to be a machine. If it is not the type of machine classified in this Class (30), (see paragraph 2 of this class definition), it will be found in the appropriate machine class.
- 409, Gear Cutting, Milling, or Planing.
- 12, Boot and Shoe Making, particularly subclasses 27+, 40, 41.7, 46, 47, et seq. 50.1+, 57.5+, 58, 62+, 85+, 103, and 104.5.
- 15, Brushing, Scrubbing, and General Cleaning, subclass 105.53.
- 26, Textiles: Cloth Finishing, particularly subclasses 7+ and see Note (16.5).
- 28, Textiles: Manufacturing, subclasses 222+ for thread clearing apparatus using means to shear away fibrils and other unwanted, protruding material.
- 29, Metal Working, particularly subclasses 22 and 34, filing, subclasses 76.1+.
- 33, Geometrical Instruments, particularly subclasses 18.1+ and 628.
- 42, Firearms, particularly subclasses 53, 86 and 90.
- 47, Plant Husbandry, particularly subclasses 6+, 8 and 12.
- 53, Package Making, subclass 435 for methods and subclasses 513+ for apparatus to form packages combined with means to cut the contents; and subclasses 381.3+, for envelope opening apparatus.
- 65, Glass Manufacturing, subclasses 112+ for a process of glass treating combined with severing or perforating, and see the collection of "Search Notes" thereunder for a process of, or apparatus for glassworking or treating combined with cutting, scoring, scribing or perforating of glass; and subclass 334 for a gob cutting or scraping means that coacts with a surface of a glass melt dispenser or receiving means.
- 69, Leather Manufactures, particularly subclasses 2, 9+ and 20.
- 72, Metal Deforming, subclasses appropriate to cutting and deforming.
- 81, Tools, subclasses 15.2+. (54) 166, Wells, subclasses 54.5+ for means for cutting cable or rope below ground and subclasses 55+ for means for perforating, weakening, bending or separating pipe at any point.
- 86, Ammunition and Explosive-Charge Making, particularly subclass 21.
- 112, Sewing, particularly subclasses, 68, 122+ and 285-301.
- 114, Ships, particularly subclass 42.
- 131, Tobacco, particularly subclasses 233+, 248+, and 253+.
- 132, Toilet, particularly subclasses 75.4+.
- 139, Textiles: Weaving, particularly subclasses 43, 44, 260, 263+, and 302+.
- 140, Wireworking, particularly subclass 26 for slat cutting and subclasses 139+ for wire cutting in combination with straightening.
- 144, Woodworking, subclass 28.1.
- 168, Farriery, particularly subclasses 48.1+.
- 172, Earth Working, appropriate subclasses for implements for cutting the earth in situ such as colters, disks, hoes or weeders. An implement intended merely to make a slit in sod is classifiable in Class 30. Class 172 takes patents in which the claims are restricted to or the sole disclosed use is for earth working, except patents for those hand devices in which the cutting edge extends generally in the direction of the handle, and patents for a tool for merely cutting a plant below the surface of the earth.
- 206, Special Receptacle or Package, appropriate subclasses, for a receptacle particularly configured or modified to retain or enhance the packaging of a cutlery item. See especially subclasses: 204, 207+, 228, and 394+.
- 220, Receptacles, particularly subclasses 267 and 277+.
- 224, Package and Article Carriers, particularly subclasses 232+ for a receiver supported by an animate bearer for holding a knife, bayonet, sword, or ice pick, and subclass 234 for a receiver carried by an animate bearer for holding an axe, hatchet, or splitting wedge.
- 239, Fluid Sprinkling, Spraying, and Diffusing, for significantly claimed nozzle or sprinkler structure in combination with grass or sod cutting tools for coactive use therewith, e.g., where the sprinkler part serves as a ledger plate for the cutter.

- 242, Winding, Tensioning, or Guiding, subclasses 19, 21, 48, and 521+.
- 407, Cutters, for Shaping, appropriate subclasses for cutters.
- 460, Crop Threshing or Separating, particularly subclasses 19 and 31.
- 606, Surgery, subclasses 167+.
- D7, Equipment for Preparing or Serving Food or Drink Not Elsewhere Specified, subclasses 693+ for cutting type handtool; and subclasses 649+ for place setting or table service knife.
- D22, Arms, Pyrotechnics, Hunting and Fishing Equipment, subclasses 117+ for daggers and swords.
- 7, Compound Tools, see Notes 1 and 10. See Miscellaneous notes and index to all notes to the class definition.
- 12, Boot and Shoe Making, see Notes 6 and 26. See Miscellaneous notes and index to all notes to the class definition.
- 15, Brushing, Scrubbing, and General Cleaning, see Note 26a. See Miscellaneous notes and index to all notes to the class definition.
- 26, Textiles: Cloth Finishing, see Note 29. See Miscellaneous notes and index to all notes to the class definition.
- 28, Textiles: Manufacturing, see Note 30. See Miscellaneous notes and index to all notes to the class definition.
- 29, Metal Working, see Notes 3, 6, 7, and 31. See Miscellaneous notes and index to all notes to the class definition.
- 33, Geometrical Instruments, see Note 32. See Miscellaneous notes and index to all notes to the class definition.
- 42, Firearms, see Note 33. See Miscellaneous notes and index to all notes to the class definition.
- 47, Plant Husbandry, see Note 34. See Miscellaneous notes and index to all notes to the class definition.
- 53, Package Making, subclass 402 for methods and subclass 56 for apparatus to form packages combined with means to cut the contents. See Miscellaneous notes and index to all notes to the class definition.
- 56, Harvesters, see Note 19. See Miscellaneous notes and index to all notes to the class definition.
- 62, Refrigeration, see Note 4. See Miscellaneous notes and index to all notes to the class definition.
- 65, Glass Manufacturing, see Miscellaneous notes and index to all notes to the class definition.
- 69, Leather Manufactures, see Note 37. See Miscellaneous notes and index to all notes to the class definition.
- 72, Metal Deforming, see (38) Note. See Miscellaneous notes and index to all notes to the class definition.
- 76, Metal Tools and Implements, Making, see Note 11. See Miscellaneous notes and index to all notes to the class definition.
- 79, Button Making, see Note 3. See Miscellaneous notes and index to all notes to the class definition.
- 81, Tools, see Notes 12 and 53. See Miscellaneous notes and index to all notes to the class definition.
- 82, Turning, see Note 12. See Miscellaneous notes and index to all notes to the class definition.
- 83, Cutting, see (18) Note. See Miscellaneous notes and index to all notes to the class definition.
- 86, Ammunition and Explosive-Charge Making, see Note 39. See Miscellaneous notes and index to all notes to the class definition.
- 99, Foods and Beverages: Apparatus, see Note 22.5. See Miscellaneous notes and index to all notes to the class definition.
- 112, Sewing, see Note 44. See Miscellaneous notes and index to all notes to the class definition.
- 114, Ships, see Note 45. See Miscellaneous notes and index to all notes to the class definition.
- 125, Stone Working, see Note 7. See Miscellaneous notes and index to all notes to the class definition.
- 128, Surgery, see Notes 15 and 46a. See Miscellaneous notes and index to all notes to the class definition.
- 131, Tobacco, see Note 48. See Miscellaneous notes and index to all notes to the class definition.
- 132, Toilet, see Notes 2, 6 and 49. See Miscellaneous notes and index to all notes to the class definition.
- 139, Textiles: Weaving, see Note 50. See Miscellaneous notes and index to all notes to the class definition.
- 140, Wireworking, see Note 51. See Miscellaneous notes and index to all notes to the class definition.
- 142, Wood Turning, see Note 23. See Miscellaneous notes and index to all notes to the class definition.

- 144, Woodworking, see Notes 3, 7, 25, and 51a. See Miscellaneous notes and index to all notes to the class definition.
- 147, Coopering, see Note 7. See Miscellaneous notes and index to all notes to the class definition.
- 148, Metal Treatment, see (4) Note. See Miscellaneous notes and index to all notes to the class definition.
- 164, Metal Founding, appropriate subclasses for mold making and metal casting, especially subclasses 34+ (pattern removing from mold, e.g., lost wax, etc.), 286+ (centrifugal casting machines) and 376 (dental flasks). See Miscellaneous notes and index to all notes to the class definition.
- 166, Wells, see Note 54. See Miscellaneous notes and index to all notes to the class definition.
- 168, Farriery, see Notes 6 and 55. See Miscellaneous notes and index to all notes to the class definition.
- 172, Earth Working, see Note (55a). See Miscellaneous notes and index to all notes to the class definition.
- 173, Tool Driving or Impacting, appropriate subclass for subject matter directed to driving or impacting a tool, when such subject matter includes combined features peculiar to tool driving, but which does not include features limiting the subject matter to a specific tool art, such as specific shape of the work contacting portion of a tool, related tools, or an opposed work support. See Miscellaneous notes and index to all notes to the class definition. (Class 30 has not been cleared as to subject matter in conflict with this line.)
- 175, Boring or Penetrating the Earth, see Notes 3 and 4.
- 206, Special Receptacle or Package, see Note 58.
- 219, Electric Heating, see Note 4.
- 220, Receptacles, see Note 59.
- 224, Package and Article Carriers, see Note 60.
- 239, Fluid Sprinkling, Spraying, and Diffusing, see Note (61a).
- 241, Solid Material Comminution or Disintegration, see Note 7.
- 242, Winding, Tensioning, or Guiding, see Note (62).
- 266, Metallurgical Apparatus, see Note 4.
- 294, Handling: Hand and Hoist-Line Implements, see Note 14.
- 300, Brush, Broom, and Mop Making, see Note 3.
- 404, Road Structure, Process, or Apparatus, subclass 74 for process of providing an expansion joint including a step of cutting, subclass 75 for in situ treatment of earth or roadway including comminuting, subclasses 87+ for means to cut a joint in a roadway, and subclasses 90+ for means to comminute earth or road surface in situ.
- 409, Gear Cutting, Milling, and Planing, see Notes 7 and 22.
- 425, Plastic Article or Earthenware Shaping or Treating: Apparatus, subclass 289 for the combination of plastic material shaping or reshaping apparatus and preform severing means; see the search notes thereunder; and subclass 276 for an ice cream scoop or plugger including a shaping cavity.
- 433, Dentistry, see Notes 6 and 15.
- 451, Abrading, see Note 2.
- 460, Crop Threshing or Separating, see note 47.
- 470, Threaded, Headed Fastener, or Washer Making: Process and Apparatus, appropriate subclasses.
- D22, Arms, Pyrotechnics, Hunting and Fishing Equipment.

SUBCLASSES

1 MISCELLANEOUS:

This subclass is indented under the class definition. Inventions, not provided for below.

- (1) Note. This subclass includes inventions under the class definition which are not limited to any particular cutting tool provided for below nor to forks or spoons.
- (2) Note. For razor attachments and accessories, see this class, subclass 90.
- (3) Note. For elements for sheath knives, see this class, subclass 164.
- (4) Note. For inventions applicable to any of the cutlery implements provided for in this class but limited merely to the material from which the implement is made, see this class, subclass 345.

1.5 NECKED RECEPTACLE SEAL CUTTERS:

This subclass is indented under the class definition. Cutting devices provided with means for severing destructible and anti-tampering means applied to containers having a narrowing portion forming a closure receiving opening.

- (1) Note. Included herein are cutters for bottle closure seals, either in the form of (1) an encompassing thimble for the closure and bottle neck, or (2) a strand or wire, fastened to the bottle neck and passing over the closure.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 2, for carton openers.
- 94+, for external rod or pipe cutters.
- 173+, for plural cooperating blade cutters.
- 400, for can openers.

SEE OR SEARCH CLASS:

- 81, Tools, subclass 3.1 for receptacle closure removers.

2 CARTON OPENERS:

Cutting apparatus and tools specially designed for cutting open paper cartons.

- (1) Note. See this class, subclass 2.
- (2) Note. See this class, subclass 167.1 for devices for prying off the lids of boxes.
- (3) Note. This subclass includes apparatus and tools for cutting the carton contents as well as the carton.

SEE OR SEARCH CLASS:

- 229, Envelopes, Wrappers, and Paperboard Boxes, subclasses 120.011+ and 308 for a box or envelope combined with a cutter.
- 383, Flexible Bags, subclass 202 for a bag combined with a cutter.

26 MANICURE:

Cutting implements having structure specially adapting them for use in manicuring a person's nails or cutting corns or callouses.

SEE OR SEARCH CLASS:

- 132, Toilet, subclasses 75.4 and 75.5, for cutters combined with other manicuring implements.
- 606, Surgery, subclass 133 for tweezers for removing slivers, hair or parasites from the skin, subclass 210 for tweezers in general.

27 Guarded edge:

This subclass is indented under subclass 26. Cutters in which the cutting edge is guarded.

- (1) Note. For other guarded cutters, see this class, the razor subclasses and subclasses 278+ and 286+.

28 Nippers:

This subclass is indented under subclass 26. Cutters in which two cooperating blades or a blade and anvil meet edge to edge to perform the cutting operation.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 175+, for other cutters of this type.

29 Shears:

This subclass is indented under subclass 26. Cutters in which the edges of two cooperating blades move past and in substantial contact with each other to perform the cutting operation.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 194+, for shears of general utility.

29.5 HAIR CUTTERS FOR INSIDE NOSE OR EAR:

This subclass is indented under the class definition. Cutting implements having special configuration disclosed for cutting or shaving hair from the inside of small passages or cavities such as nostrils or ears.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 49, for curved edge razors, many of which are disclosed for use in removing hair from armpits.

30 HAIR PLANERS:

Devices having a sharp cutting edge utilizing guards having elongated teeth, projecting beyond the edge, which prevent cutting the hair adjacent the skin. Many of these patents involve the combination of a conventional comb or such comb modified to hold a blade.

- (3) Note. For combined combs and shears see this class (30), subclasses 233.5+, where the comb acts as a guard, guide or gauge for the shear, and Class 7, Compound Tools, subclass 136 where the comb and shear are independently used.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 32+, (and particularly 53+) for razors having comb type guard structure.
195, for hair thinners.
233.5, and see (3) Note, above.
286+, and see the Notes thereto for other cutlery with guards and/or guides.

SEE OR SEARCH CLASS:

- 7, Compound Tools, subclass 136, and see (3) Note, Above.
132, Toilet, subclasses 219+ for combs, per se, designed to be used by inserting the teeth into the hair of a person and for such combs combined with other structure not elsewhere provided for.

31 Convertible:

This subclass is indented under subclass 30. Devices constructed to be converted to a razor for ordinary shaving purposes.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 122, and the notes thereunder, for other convertible implements.

32 RAZORS:

This subclass is indented under the class definition. Devices comprising cutting and shearing implements particularly adapted to shaving of the beard, i.e., arranged to sever the hair of the beard close to the skin; parts thereof, attachments and accessories therefor, not specifically classified elsewhere.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 30+, for hair planers for trimming the hair at the back of the neck; and particularly subclass 31 for such planers which are convertible to razors.
196+, for hair clippers provided with plural teeth.
329+, for holders for detachable blades, which may be razor blades, arrangement of the holder being such that it is not adapted to shaving.
345, for blades in general characterized by the material of which the blade is made.
346+, for razor blades, per se.

SEE OR SEARCH CLASS:

- 76, Metal Tools and Implements, Making, subclasses 1 and 104.1+ for processes of and apparatus for making razors.
132, Toilet, subclasses 289+ for shaving kits.
206, Special Receptacle or Package, subclass 208 for a razor container or package including a contacting medium, subclass 228 for a razor kit, subclass 351 for a powered razor package and subclass 352 for a razor blade receptacle or package.
221, Article Dispensing, appropriate subclasses, for receptacles and packages including dispensing means of the type provided for in that class.
401, Coating Implements With Material Supply, subclasses 118+ for a shaving kit consisting of a supply of shaving material (i.e., soap) and an independent applicator therefor.

34.05 Combined:

This subclass is indented under subclass 32. Razor in combination with other structure, not directly associated therewith in the action of shaving of the beard.

- (1) Note. A razor combined with means to stretch the skin being shaved is included herein.
(2) Note. A razor combined with a distinct cutting device (which may be a distinct razor) is included herein.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 30+, for a hair planer, which may be combined with other structure.
- 42+, for a motor driven razor.
- 51+, for a razor having a guarded cutting edge.
- 123+, for cutlery, generally, in combination with distinct other structure not directly associated therewith in a cutlery function.
- 535, for a razor having a hollow handle, comprising a receptacle.

SEE OR SEARCH CLASS:

- 132, Toilet, subclasses 289+ for a shaving kit, which may include a razor.
- 362, Illumination, subclass 115 for the combination of a razor and a lamp.

34.1 With additional cutter means:

This subclass is indented under subclass 34.05. Razors wherein the "other thing" includes a second means, other than a second razor, for severing the beard or hair.

34.2 With means to raise the hair and/or stretch the skin:

This subclass is indented under subclass 34.05. Razors wherein the other thing includes either (1) means to lift the beard, permitting shaving thereof closer to the skin; or (2) means to pull the surface being shaved, holding the surface taut during the shaving operation.

35 With means to facilitate sharpening:

This subclass is indented under subclass 34.05. Razors, in which the razor is combined with structure which permits or assists in sharpening of the blade.

- (1) Note. Where the structural feature merely permits of the separate removal of the guard so that sharpening of the blade is possible, see this class, subclasses 51+; and where the mere action of shearing incidentally serves to sharpen and/or maintain the cutter in sharpened condition, see this class, subclass 43.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 43+, and see (1) Note above.
- 51+, and see (1) Note above.
- 138+, for other types of cutlery combined with means to facilitate sharpening.
- 329+, for mere holders for unguarded blades which are capable of operation against a sharpening device.

SEE OR SEARCH CLASS:

- 76, Metal Tools and Implements, Making, subclasses 81 through 89.2.
- 451, Abrading, for grinding a workpiece, generally. For a statement of the line between Class 451, Abrading, and this class, see Paragraph (2) under "Notes" of the Class Definition of Class 30. Search particularly subclass 45 for a method of sharpening a razor, subclasses 126 and 322 for a machine for sharpening a razor blade by reversing the blade as it is presented to an abrading tool, subclass 191 for an abrading machine having a rotary grinding tool for sharpening a razor blade, and subclass 556 for a razor hone.

36 Permanently attached sharpener:

This subclass is indented under subclass 35. Razors in which the sharpening element is built in as a permanent part of the organization.

SEE OR SEARCH CLASS:

- 132, Toilet, subclass 292 for magnets used for sharpening.
- 335, Electricity: Magnetically Operated Switches, Magnets, and Electromagnets, subclass 283 for blade sharpening or conditioning type magnets and subclasses 285+ for magnets holding sharpening devices which devices are separate from the razors that they are used to sharpen.

37 Means for holding or guiding sharpener:

This subclass is indented under subclass 35. Razors in which the razor is provided with means to hold or guide an independent sharpener relative to the razor blade.

38 Blade-shifting mechanism:

This subclass is indented under subclass 37. Razors in which mechanism, operated by relative motion between the sharpener and razor, operates to shift the blade relative to the sharpener to cause the blade edge to always have trailing contact.

SEE OR SEARCH CLASS:

451, Abrading, subclasses 126 and 322 for a machine for sharpening a razor blade by reversing the blade as it is presented to an abrading tool.

39 Safety impulse:

This subclass is indented under subclass 38. Razors, in which mechanism is provided to insure that the blade is moved out of contact with the sharpener prior to a reversal of relative motion to prevent cutting of the sharpener.

40 With blade magazine:

This subclass is indented under subclass 34.05. Razors in which a magazine holding blades is claimed in combination with the razor, the structure being such that blades may be positioned in the razor without touching the same with the hands. The magazine may be built into the razor structure or be separate therefrom.

SEE OR SEARCH THIS CLASS, SUBCLASS:

536, for a razor having a hollow handle, comprising a receptacle for receiving razor blades.

SEE OR SEARCH CLASS:

206, Special Receptacle or Package, subclasses 352+ for a blade magazine or package, per se.

221, Article Dispensing, appropriate subclasses for such structures including article dispensing features.

312, Supports: Cabinet Structure, particularly subclasses 35+ for removal facilitating magazine type cabinets.

40.1 Strip feed:

This subclass is indented under subclass 40. Razors including means to store an elongated blade and means to support the blade so that a selected portion of the blade is exposed for

shaving, which storage means and supporting means will allow the elongated blade to move parallel to the cutting edge thereof to expose another selected portion of the blade.

40.2 Detachable magazine:

This subclass is indented under subclass 40. Razors wherein the blade storage means (i.e., magazine) is secured to the razor while a blade is being positioned in the razor and wherein the blade storage means is removed from the razor during the shaving operation.

SEE OR SEARCH CLASS:

221, Article Dispensing, subclass 232 for magazines for supplying razor blades, not combined with structure for cooperatively engaging with razor structure.

41 With waste-collecting, razor-cleaning and/or dispensing:

This subclass is indented under subclass 34.05. Razors, combined with any one or any combination of the following three features:

- (a) With means for collecting the waste material, as lather and hair, resulting from the shaving operation:
- (b) With means for cleaning the razor including means for removing lather from the blade and reapplying the same to the face; means for whirling to throw off water, etc.
- (c) With means to dispense fluent materials as water or lather.

41.5 With fluid-current disposal means:

This subclass is indented under subclass 41. Razors having means to create and/or direct the flow of fluent material to and/or from the region of shaving action for collecting or dispersing hair clippings and/or lather or other shaving preparations.

SEE OR SEARCH THIS CLASS, SUBCLASS:

133, and see the notes thereto, for suction disposal means combined with multiple shearing position type shears.

41.6 Hair-collecting means:

This subclass is indented under subclass 41. Razors having means for receiving the loose hair that results from the shaving operation.

- (1) Note. The razors of this subclass are usually “dry shavers”.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

41.5, for dry shavers which are provided with fluid means for flowing the cut hair into a collecting chamber.

41.7 With blade usage indicator:

This subclass is indented under subclass 34.05. Razor wherein the addition structure comprises designation means setting forth a particular portion of the cutting member or of the sharp edge thereof or setting forth the number of times the cutting member or the sharp edge thereof has been used.

41.8 With blade flexure indicator:

This subclass is indented under subclass 34.05. Razor including means to bend the cutting blade within its elastic limit and wherein the additional structure comprises designation means setting forth the amount of the bend.

41.9 With cooperating nipping blades:

This subclass is indented under subclass 32. Razors including at least two opposed cutting edges having relative movement bringing the cutting edges into abutment to sever the hair.

42 With blade-moving means:

This subclass is indented under subclass 32. Razors having mechanism for moving the blade during the shaving operation.

- (1) Note. For other motor driven cutlery implements, see this class, subclass 408, and the notes thereunder.
- (2) Note. For other nippers, see this class, subclasses 175+.

43 With cooperating shearing blades:

This subclass is indented under subclass 32. Razors including two or more cutters, which cutters have cutting edge that cooperate by

moving past and in substantial contact with each other to perform the shaving operation.

- (1) Note. The cutters of a typical razor in this subclass and the subclasses indented hereunder are positioned in use so that one cutter is closer to the surface being shaved than the other cutter. The cutter closer to the surface being shaved is referred to as the “outer cutter” and the cutter farther from the surface being shaved is referred to as the “inner cutter”.

43.1 With razor-adjusting means:

This subclass is indented under subclass 43. Razors including means to vary the position of one part of the razor structure with respect to another part of the razor structure.

43.2 Adjusting spacing between blades:

This subclass is indented under subclass 43.1. Razors including means to vary the distance between the cutting edge of the outer cutter and the cutting edge of the inner cutter.

43.3 With compound movement of blade:

This subclass is indented under subclass 43. Razors wherein a plurality of simple motions are given to one of the cutters simultaneously.

43.4 Rotary blade:

This subclass is indented under subclass 43. Razors wherein one of the cutters turns continuously about an axis.

43.5 Rotary inner blade:

This subclass is indented under subclass 43.4. Razors having a pair of cutters positioned during use such that one of the cutters is closer to the surface being shaved than the other wherein the cutter which is farther from the surface being shaved (i.e., the inner cutter) turns continuously about an axis.

43.6 And stationary outer blade:

This subclass is indented under subclass 43.5. Razors wherein the other cutter (outer) is fixed against movement.

43.7 Oscillating blade:

This subclass is indented under subclass 43. Razors wherein one of the cutters moves to and fro about an axis such that any point on the

- movable cutter moves back and forth in a circular path.
- 43.8 Oscillating inner blade:**
This subclass is indented under subclass 43.7. Razors wherein the cutter which moves to-and-fro about an axis is the inner of a pair.
- 43.9 And stationary outer blade:**
This subclass is indented under subclass 43.8. Razors wherein the other cutter (outer) is fixed against movement.
- 43.91 Reciprocating inner blade:**
This subclass is indented under subclass 34.05. Razors wherein the inner of a pair of cutters moves rectilinearly to-and-fro.
- 43.92 And stationary outer blade:**
This subclass is indented under subclass 43.91. Razors wherein the other cutter (outer) is fixed against movement.
- 44 Vibratory:**
This subclass is indented under subclass 42. Razors having only one blade, which is moved to reciprocate rectilinearly.
- 45 Electric:**
This subclass is indented under subclass 44. Razors having electrical means for imparting motion to the blade edge.
- (1) Note. Many patents in this class, subclass 210, have electrical vibratory mechanisms applied to analogous devices and search should be continued there.
- SEE OR SEARCH CLASS:
310, Electrical Generator or Motor Structure, subclasses 15+ for vibratory electric motors, and subclass 47 for rotary magnetic motors, for hand tools or dry shavers.
335, Electricity: Magnetically Operated Switches, Magnets, and Electromagnets, subclasses 220+ for magneto-mechanical devices; e.g., electromagnet with armature.
- 46 Traction:**
This subclass is indented under subclass 44. Razors in which the blade edge is given its motion by means receiving its actuating power by frictional engagement with the surface being shaved.
- (1) Note. Some patents in this class, subclass 247, show a traction drive for other types of cutting implements.
- 47 Knockdown and/or folding:**
This subclass is indented under subclass 32. Razors in which the claimed features provide for positioning the parts in compact form. The parts may be (1) separated and reassembled, (2) merely folded together, or (3) both.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
40+, for razors provided with magazines having means to feed blades into cutting positions.
532, for means to assemble and disassemble blades pivotally connected to handle.
534, for handles connected to blades by threaded connection means.
- 48 Inclined edge:**
This subclass is indented under subclass 32. Razors in which the blade edge is straight and structure is provided by which the blade edge is inclined relative to the shaving stroke, resulting in a draw cut.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
527, for razors provided with means for adjusting the head and handle relative to each other.
- 49 Curved edge:**
This subclass is indented under subclass 32. Razors having curved edge blades.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
42, for circular rotary blade razors.
347 and 356, for blades, per se, having curve edges.

50 Multiple blade:

This subclass is indented under subclass 32. Razors provided with a plurality of blades which may be arranged in tandem.

SEE OR SEARCH THIS CLASS, SUBCLASS:

42+, for plural blade razors provided with means for moving the blade during shaving.

299+, for other cutlery devices provided with a plurality of blades.

51 Detachable blade, guarded cutting edge:

This subclass is indented under subclass 32. Miscellaneous razor organizations having a guarded cutting edge in which the blade or other part is separable for removal from the organization.

- (1) Note. The razors of this and the indented subclasses are provided with securing or clamping mechanism for holding a detachable blade in position on the razor, consisting of a blade support which remains fixed with respect to the razor during blade removal and replacement cooperating with a clamping plate or cap which moves to grip the blade against the blade support.

SEE OR SEARCH THIS CLASS, SUBCLASS:

77+, for guards claimed as subcombinations of razors.

286+, for other cutting tools with guarded cutting edges.

329+, for devices not adapted to shaving that detachably hold razor blades.

52 Tensioned blade edge:

This subclass is indented under subclass 51. Razors in which the blade edge is tensioned. The usual purpose alleged is to improve the shaving characteristics.

53 Longitudinal or old style:

This subclass is indented under subclass 51. Razors of the longitudinal or "old style" razor type.

- (1) Note. The razors in this subclass and the indented subclasses are of both the single and the multiple guarded edge type.

- (2) Note. All longitudinal or old style razors appear either originally or as cross-references in this class (30) in the following subclasses: 30+, 53+, 77+, 85+, 329+, and 346+. No razors of the longitudinal type should appear originally in the following subclasses: 51, 57-76.

54 With relative blade and guard adjustment:

This subclass is indented under subclass 53. Razors in which the blade edge and guard are adjustable relative to each other, to vary the closeness of the cut.

- (1) Note. Compare this class, subclasses 283+.

55 Separable guard:

This subclass is indented under subclass 53. Razors in which the guard is movable independently of the blade to provide an unguarded blade edge. The device may then be used as an unguarded razor or it may be stropped. The guard may be separately removable, or it may be pivoted or otherwise arranged for movement away from the blade edge.

- (1) Note. Search should be completed in this class, subclass 54, most of the patents therein being arranged so that an unguarded blade edge may be provided.

- (2) Note. Compare this class, subclasses 284 and 285.

57 Pivoted blade:

This subclass is indented under subclass 51. Razors in which the blade or its holder is pivoted, means being provided for securing the blade in stationary position.

- (1) Note. The major portion of these patents show but do not claim razors of the type in subclasses 38+, of this class, in which subclasses the search must be completed.

- 58 Pivoted cap:**
This subclass is indented under subclass 51. Razors in which the cap is pivoted to some portion of the razor organization and is arranged to swing about its pivots for detachment of the blade or other parts.
- 59 Multiple guard:**
This subclass is indented under subclass 58. Razors in which there is a blade having a plurality of cutting edges and guard means providing a guard for a plurality of such edges.
- 60 With operator and relative blade and guard adjustment:**
This subclass is indented under subclass 59. Razors in which there is provided either or both (a) means, other than a mere lever or projection fastened to the cap, to operate the cap to cause it to swing about its pivots and (b) structure by which the blade edge and guard may be adjusted relative to each other.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
61, for razors of similar construction provided with a single guarded edge.
- 60.5 Sectional cap:**
This subclass is indented under subclass 60. Razors in which the cap is formed by a plurality of cap members pivoted to the razor.
- 61 With operator and relative blade and guard adjustment:**
This subclass is indented under subclass 58. Razors in which there is provided either or both or (a) means, other than a mere lever or projection fastened to the cap, to operate the cap to cause it to swing about its pivots and (b) structure by which the blade edge and guard may be adjusted relative to each other.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
59+, for razors provided with multiple guards.
- 62 Slidable blade:**
This subclass is indented under subclass 51. Razors in which the blade is positioned in or removed from the organization with a simple sliding motion.
- (1) Note. Compare this class, subclasses 335+.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
335, for other cutlery devices having blades that can be detached by a simple sliding motion.
- 63 With relative blade and guard adjustment:**
This subclass is indented under subclass 62. Razors in which means are provided by which the blade edge and guard may be adjusted relative to each other.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
41+, for razors provided with waste receiving means.
- 64 With blade lock:**
This subclass is indented under subclass 62. Razors in which means are provided to hold or lock the blade in the position to which it is slid.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
63, for other razors having a lock.
- 65 Multiple guard:**
This subclass is indented under subclass 62. Razors having blades with a plurality of cutting edges, at least two of which are guarded.
- 66 Slidable lock:**
This subclass is indented under subclass 51. Razors in which the separable parts are held together by means of a slidable member, generally of U-shape.
- 67 Hook and lock:**
This subclass is indented under subclass 51. Razors in which a plurality of hooks engage one edge of the blade, the blade being swingable about such hooks as pivots so that an opposite edge of the blade may be engaged by some locking device.
- 68 Bolt-connected:**
This subclass is indented under subclass 51. Razors in which a bolt extends through the separable parts to hold the same together.

- 69 Threaded:**
This subclass is indented under subclass 68. Razors in which the bolt is threaded.
- 70 Multiple guard:**
This subclass is indented under subclass 69. Razors having a single blade with a plurality of cutting edges, at least two of which are guarded.
- 71 With relative blade and guard adjustment:**
This subclass is indented under subclass 70. Razors in which the blade edge and guard may be adjusted relative to each other.
- 72 Flexible blade:**
This subclass is indented under subclass 71. Razors in which the blade may be flexed to provide the relative adjustment.
- 73 Spaced guard edge:**
This subclass is indented under subclass 72. Razors in which structure is provided to maintain at all times a definite space between blade edge and guard.
- 74 Magnetic:**
This subclass is indented under subclass 51. Razors in which the separable parts are held together by magnetic force.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
36, for razors provided with sharpening means attached by magnetic means.
- 74.1 Multiple guard:**
This subclass is indented under subclass 51. Razors involving a blade having a plurality of cutting edges and a guard means providing a guard for a plurality of such edges.
- 75 Aligning means:**
This subclass is indented under subclass 51. Subcombinations of devices claiming the means for aligning blade edge and guard.
- (1) Note. Substantially all patents having detachable blades and guards have some form of aligning means.
- 76 Corner construction:**
This subclass is indented under subclass 51. Subcombinations of devices claiming means for guarding or shielding the corner or end of a sharpened blade edge.
- 77 Guards:**
This subclass is indented under subclass 51. Subcombinations of devices claiming guard structure, per se. The mere specifying of the blade in the claim does not exclude the patent from this or indented subclasses.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
36, for razors provided with blade sharpening elements which also act as guards.
48, for razors having guard structures which provide a blade edge inclined to the shaving stroke of the razor.
286, for other cutter organizations having guards.
- 78 Blade-supported:**
This subclass is indented under subclass 77. Devices in which the guard is constructed for mounting on the blade.
- 79 With relative blade and guard adjustment:**
This subclass is indented under subclass 78. Devices in which structure is provided for adjusting the position of the guard relative to the blade edge.
- 80 Rail guard:**
This subclass is indented under subclass 79. Devices in which the guard has an edge portion of rail form.
- 81 Edge structure:**
This subclass is indented under subclass 77. Devices in which the edge structure, per se, of the guard is claimed.
- 82 Modified teeth:**
This subclass is indented under subclass 81. Devices claiming the guard tooth structure.
- 83 Rail:**
This subclass is indented under subclass 81. Devices claiming guard rail structure.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
27 and 80, for similar devices.
- 84 Caps:**
This subclass is indented under subclass 51. Subcombinations of devices claiming modified cap or clamping plate structure.
- 90.1 MEANS FOR CUTTING ELONGATE, STRAND-ENCIRCLING SHEATH:**
This subclass is indented under the class definition. Device having a cutter specifically adapted to slice through a flexible, strand-encompassing cover of indeterminate length without slicing into the encompassed strand.
- (1) Note. A rigid conduit into which wires are placed is not considered to be a sheath.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
92+, for a device adapted to slice through a rigid conduit.
286+, for a device of similar characteristics for cutting material other than a sheath.
- SEE OR SEARCH CLASS:
81, Tools, subclasses 9.4+ for a similar device which, in addition to a sheath cutter, is provided with means to remove the sheath from the strand.
- 90.2 Helically wound metal sheath:**
This subclass is indented under subclass 90.1. Device for cutting a metallic cover which cover is formed by a strip(s) wrapped in screw-thread fashion about the encircled strand.
- 90.3 Including rotary cutter:**
This subclass is indented under subclass 90.2. Device including a cutting tool that turns, during the cutting operation, about an axis which is not coextensive with the central axis of the elongate cover.
- 90.4 Longitudinally:**
This subclass is indented under subclass 90.1. Device wherein the cutter is specifically adapted to slice the strand cover in a direction parallel to the centerline of the strand.
- (1) Note. A device adapted to make a spiral slice in a strand cover is not considered to cut longitudinally.
- 90.6 With additional means for cutting sheath other than longitudinally:**
This subclass is indented under subclass 90.4. Device including an additional cutter adapted to slice the strand cover in a direction other than parallel to the centerline of the strand without slicing the strand.
- 90.7 Adjustable to also cut sheath other than longitudinally:**
This subclass is indented under subclass 90.4. Device wherein the cutter is adapted to be used alternatively to slice the cover in a direction parallel to the centerline of the strand or to slice it in some other direction.
- 90.8 With cutter-opposing, sheath-engaging surface:**
This subclass is indented under subclass 90.4. Device with structure adapted to bear against the cover on a surface thereof directly opposite the surface engaged by the cutter so that such cover-engaging structure resists movement of the cover away from the cutter.
- 90.9 Roller surface:**
This subclass is indented under subclass 90.8. Device wherein the cover-engaging structure has a generally cylindrical periphery and is mounted for rotation so that such periphery may roll along the cover.
- 91.1 Pivotaly connected to cutter:**
This subclass is indented under subclass 90.8. Device wherein the cutter is joined to the cover-engaging structure by means which permits relative arcuate movement between the cutter and the cover-engaging structure.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
91.2, for similar structure for cutting a sheath other than longitudinally.
- 91.2 With cutter-opposing, sheath-engaging surface pivotaly connected to cutter:**
This subclass is indented under subclass 90.1. Device with structure adapted to bear against the cover on a surface thereof directly opposite

the surface engaged by the cutter so that such cover-engaging structure resists movement of the cover away from the cutter, wherein the cutter is joined to the cover-contacting structure by means which permits relative arcuate movement between the cutter and the cover-engaging structure.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

91.1, for similar structure wherein the cutter is specifically adapted to cut the sheath in a direction parallel to the longitudinal dimension of the sheath.

92 PIPE AND ROD CUTTERS:

This subclass is indented under the class definition. Cutting devices and implements, specially designed for cutting cylindrical pipes or rods and which are supported in their entirety by the work and/or manually during the cutting operation.

- (1) Note. Cutting tools adapted for this purpose but of more general application will be found in the structure subclasses of this class.
- (2) Note. In the above definition the term "work" may include work parts adjacent to the pipe or rod, e.g., a boiler head carrying pipes, or one of the several pipes forming a boiler.

SEE OR SEARCH CLASS:

- 72, Metal Deforming, subclasses 70+ for disclosure of tube cutting and flaring.
- 81, Tools, particularly subclasses 300+ for tool-jaw(s) positioned by relatively movable plural handles (e.g., pliers).
- 82, Turning, subclasses 46+ for cut-off devices wherein the work rotates.
- 83, Cutting, appropriate subclasses for pipe, rod, or tube cutters which are neither supported in their entirety by the work nor manually supported during the cutting operation.
- 166, Wells, subclasses 55+ for apparatus for cutting and perforating apparatus which operates on well pipe in situ.
- 175, Boring or Penetrating the Earth, subclasses 2+ for a device for firing a bullet or exploding a shaped charge in

an inaccessible bore to penetrate the earth formation or perforate or cut a tubular casing or other wall member in the bore.

408, Cutting by Use of Rotating Axially Moving Tool, appropriate subclasses, for cutting of screw threads of tubular or rod-like work by a rotating, axially moving tool having no additional motion during operation; especially subclass 28, for means for cutting in the manner of that class (408) combined with means for cutting tubular or rod-like work to length in the manner of this class (30).

470, Threaded, Headed Fastener, or Washer Making: Process and Apparatus, subclasses 183+ for implements for cutting threads except as provided for in Class 408. See the note below.

92.5 Adapted to cut pipe or rod longitudinally:

This subclass is indented under subclass 92. Device specifically adapted to cut the cylindrical member (pipe or rod) in a direction parallel to the centerline of the member.

93 Rotary:

This subclass is indented under subclass 92. Cutters in which the cutting element is rotated relative to the pipe or rod.

94 External:

This subclass is indented under subclass 93. Cutters in which the cutting element is rotated about the exterior of the tube or rod.

95 Pipe- or rod-encircling:

This subclass is indented under subclass 94. Cutters in which the cutter completely encircles the pipe or rod.

96 With clamping means:

This subclass is indented under subclass 95. Cutters in which means is provided for clamping a part of the cutter to the pipe or rod and on which the part carrying the cutter rotates.

97 Rotary power source:

This subclass is indented under subclass 96. Cutters in which the cutter element is rotated about the pipe by means of some rotary power source such as a motor or hand operated crank.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
400, for motor driven can openers.
- 98 Ratchet:**
This subclass is indented under subclass 96. Cutters in which the cutter element is moved by a pawl and ratchet mechanism.
- 99 Ratchet:**
This subclass is indented under subclass 95. Cutters in which the cutter element is moved by a pawl and ratchet mechanism.
- 100 Chain link type:**
This subclass is indented under subclass 95. Cutters in which the pipe or rod encircling structure is in the form of a plurality of chain-like links.
- SEE OR SEARCH CLASS:
81, Tools, subclasses 65.2+ for flexible link wrenches.
- 101 Disc cutter:**
This subclass is indented under subclass 95. Cutters in which the cutting element is in the form of a rotatable disc.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
347, for rotary blades, per se, for use in tools found in this class.
- 102 Disc cutter:**
This subclass is indented under subclass 94. Cutters in which the cutting element is in the form of a rotatable disc.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
347, for rotary blades, per se, and see the notes thereunder for other rotary blade cutters.
- 103 Internal:**
This subclass is indented under subclass 93. Cutters in which the cutter element is rotated internally of the pipe.
- SEE OR SEARCH CLASS:
166, Wells, subclass 55.8.
- 104 Eccentrically pivoted:**
This subclass is indented under subclass 103. Cutters in which the cutter element is pivoted eccentrically of the tool axis.
- (1) Note. This subclass is to be distinguished from subclass 108 of this class, where the cutter element is mounted on a pivoted lever but not pivoted eccentrically of the tool axis.
- 105 Slidably projected:**
This subclass is indented under subclass 103. Cutters in which the cutter element is slidably projected to working position.
- 106 Wedge:**
This subclass is indented under subclass 105. Cutters in which a wedge is provided for projecting the cutter element to its cutting position.
- SEE OR SEARCH CLASS:
166, Wells, subclass 55.3.
- 107 Screw feed:**
This subclass is indented under subclass 106. Cutters in which screw means is provided to move the wedge.
- 108 Pivoted lever mounted:**
This subclass is indented under subclass 103. Cutters in which the cutter element is mounted on a pivoted lever.
- (1) Note. This subclass is to be distinguished from subclass 104, in this class, where the cutter element is pivoted eccentrically of the tool axis.
- 109 CIGAR TIP CUTTERS:**
Cutting devices and implements specially constructed for cutting the tips of cigars.
- (1) Note. Many of the patents in this and indented subclasses have receptacles for catching the clippings and in many patents the cutting is done by a shearing action. For other cutters with material holders, see this class, subclasses 124+ and for shears of general application, see subclasses 194+.

- (3) Note. Cigar tip cutters combined with other things and tools other than cutlery will be found in Classes 7, Compound Tools, appropriate subclass and 131, Tobacco, subclasses 233 and 248+.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 124, and see (1) Note, above.
 142, for cigar tip cutters combined with other cutlery implements.
 194, and see (1) Note, above.

SEE OR SEARCH CLASS:

- 7, Compound Tools, and see (3) Note, above.
 40, Card, Picture, or Sign Exhibiting, subclass 461 for advertising devices provided with cigar end cutters in which the operation of the cutter controls the actuation of the advertising device.
 99, Foods and Beverages: Apparatus, subclasses 635, 636, and 643 for cutting the end from food.
 131, Tobacco, and see (3) Note, above.
 206, Special Receptacle or Package, subclasses 238+ for a tobacco product package combined with cutting means.

110 Rotary power source:

This subclass is indented under subclass 109. Cutters in which the cutter element is driven from a rotary power source.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 400+, and the notes thereunder, for motor driven cutting tools generally.

111 Hand:

This subclass is indented under subclass 109. Cutters in which the cutter is hand held and manipulated.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 234+,

112 Pivoted blade:

This subclass is indented under subclass 111. Cutters in which the cutting blade is pivoted.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
 244+,

113 Reciprocating blade:

This subclass is indented under subclass 111. Cutters in which the cutting blade reciprocates during the cutting operation.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 241+,

113.1 CORE-PIT REMOVERS:

This subclass is indented under the class definition. Device including a cutting implement constructed to disconnect, divide, or otherwise disunite that portion of food that is located in and around the geometrical center of the food (e.g., the "stone" in a peach) from the rest of the food.

SEE OR SEARCH CLASS:

- 99, Foods and Beverages: Apparatus, subclass 547 for machines which remove a core-pit.

113.2 Including pivoted tool-pair members:

This subclass is indented under subclass 113.1. Device including two co-operating core-pit removing members which are mounted on hinges or flexible portions of the implement so that they can be made to approach one another during the core-pit removing operation.

113.3 Combined:

This subclass is indented under subclass 113.1. Device including a core-pit remover combined with some other structure.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 123, for other combinations, and see Note (5) for other places to search.

114 SEGMENTERS:

Cutting devices and implements specially designed to cut segments from cylindrical material, such as pies and cakes.

- (1) Note. The cutters may be attached to an ordinary baking pan and have gages to gage the size of the segment.

- (2) Note. For such gages, per se, see Class 33, Geometrical Instruments.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

302, for combined segmenters and corers.

115 PLASTIC MATERIAL CUTTERS:

Cutters specially designed for cutting plastic materials.

- (1) Note. Traveling roller cutters, radiating or crossed blade cutters, and annular blade cutters which may be used for cutting dough, will be found in this class, subclasses 128, 130, 292, 301+, 303, 316, and 319.

- (2) Note. Plastic material cutters which are not hand manipulable or have structure for performing functions other than mere cutting, will be found in Class 425, Plastic Article or Earthenware Shaping or Treating: Apparatus, subclasses 289+ for molding apparatus for plastic material combined with preform severing means; (see the search notes thereunder).

SEE OR SEARCH CLASS:

225, Severing by Tearing or Breaking, subclasses 93+ for a hand device that penetrates, and then breaks apart light textured, fluffy foods, such as cakes and breads.

241, Solid Material Comminution or Disintegration, subclasses 168+ for dividing or mashing light-textured or fluffy foods.

116 Wire:

This subclass is indented under subclass 115. Cutters in which the cutting element is in the form of a wire or wires.

117 Plural:

This subclass is indented under subclass 116. Cutters in which a plurality of cutting elements of wire are provided.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

299+, and the notes thereunder, for other plural blade cutters.

118 BUTTONHOLE TYPE:

Cutting implements specially constructed to cut buttonholes.

SEE OR SEARCH CLASS:

83, Cutting, appropriate subclasses and especially subclass 905 for an art collection of machines for cutting buttonholes.

112, Sewing, subclass 68 for sewing machines for making buttonholes and also having cutting features.

223, Apparel Apparatus, subclasses 2+.

119 With punch:

This subclass is indented under subclass 118. Cutting implements in which a cutter is provided to cut a hole at the end of the buttonhole slit.

120 Shears:

This subclass is indented under subclass 118. Cutting implements in which the edges of two cooperating blades move past and in substantial contact with each other.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

194+, for other shears.

120.1 SHELL OPENERS:

This subclass is indented under the class definition. Device including a sharp edged, pointed, blunt or other stress applying member for severing, piercing or fracturing a friable outer covering of food.

SEE OR SEARCH CLASS:

99, Foods and Beverages: Apparatus, subclasses 498 and 568+ for shell breaking machines.

452, Butchering, subclass 17 for a hand tool for opening bivalves.

120.2 Nutcrackers:

This subclass is indented under subclass 120.1. Device especially adapted to fracture the shell of a nut.

120.3 Arcuately moved jaws:

This subclass is indented under subclass 120.2. Device having two stress applying members and a pivot about which the members may rotate towards each other.

120.4 Plural or relatively movable pivot:

This subclass is indented under subclass 120.3. Device having more than one point about which parts rotate or a point which is positionable relative to other parts of the device.

120.5 Lever-actuated jaws:

This subclass is indented under subclass 120.2. Device having at least one movable stress applying member which member is moved by another member which rotates about a pivot point.

121 TREE HACKS:

Cutting implements especially designed for cutting or scraping the bark from trees or logs or for grooving the same.

SEE OR SEARCH THIS CLASS, SUBCLASS:

280 and 317, for similar tools.

SEE OR SEARCH CLASS:

144, Woodworking, subclass 208.1 for a machine for crossing bark.

121.5 CORN STRIPPERS:

This subclass is indented under the class definition. Device having an edge that engages the circumferential periphery of the cob portion of an ear of corn and scrapes the kernels from the cob by relative movement between it and the ear of corn in the direction of the longitudinal axis of the ear.

122 CONVERTIBLE:

This subclass is indented under the class definition. Implements in which the parts are relatively movable or interchangeable to convert the implement from one cutlery implement to another such implement.

- (1) Note. This subclass is to be distinguished from subclasses 142+, where cutlery implements are combined, i.e., each implement always retains its distinctive characteristics.

- (2) Note. Compare this class, subclasses 31 and 203.

- (3) Note. Where the implement is convertible from a cutlery implement into some other noncutlery implement, search should be made in Classes 7, Compound Tools, and 81, Tools, subclasses 181+.

SEE OR SEARCH CLASS:

294, Handling: Hand and Hoist-Line Implements, subclass 54 for convertible hand forks and shovels.

123 COMBINED CUTLERY OR COMBINED WITH ANCILLARY FEATURE:

Cutlery implements combined with other structure, except as otherwise provided for.

- (1) Note. See this class, subclasses 200+ for hair clippers combined with a cut regulator.

- (2) Note. See this class, subclasses 34.05+ for razors combined with other structure, and appropriate subclasses below, for cutters with guards or guides or with supports.

- (3) Note. Cutters combined with motive power, such as motors, have been placed elsewhere in this class. See subclasses 400+, and the notes thereunder.

- (4) Note. See Class 7, Compound Tools, appropriate subclass, for cutlery implements combined with some other noncutlery tool provided both such tools are not classified in the same class.

- (5) Note. Search the following classes for cutters combined with other structure for performing an additional function within the definition of the noted class.

SEE OR SEARCH CLASS:

- 7, Compound Tools, and see (4) Note above.
12, Boot and Shoe Making, subclass 103.
15, Brushing, Scrubbing, and General Cleaning, subclasses 105+.
33, Geometrical Instruments, appropriate subclasses, especially subclass 628.

- 42, Firearms, subclass 53 for pistol swords; 86 for bayonets, and 90, for wire cutters combined with guns or bayonets.
- 47, Plant Husbandry, appropriate subclasses.
- 56, Harvesters, especially subclasses 324+, 327.1+, 328.1+, and 400.05+.
- 69, Leather Manufactures, subclass 20.
- 81, Tools, subclasses 9.3, 9.4+, 13, 15.2+, and 181+ for hand tools having a cutting device combined with a specific type of work manipulating means.
- 86, Ammunition and Explosive-Charge Making, subclasses 21+.
- 114, Ships, especially subclasses 221+.
- 131, Tobacco, especially subclasses, 233+, 248+, and 253+.
- 132, Toilet, subclasses 75.4 and 75.5.
- 135, Tent, Canopy, Umbrella, or Cane, subclass 66.
- 140, Wireworking, subclasses 123 and 123.6.
- 168, Farriery, subclasses 45+.
- 171, Unearthing Plants or Buried Objects, particularly subclasses 5, 21+, 24, 29, 30, 31+, 40, and 41+ for cutters for plants or plant parts combined with machines for unearthing such plants or plant parts.
- 172, Earth Working, appropriate subclasses, especially subclasses 133+ and 371+ for cutting tools which work the earth combined with other types of earth working tools.
- 220, Receptacles, subclass 278 for can openers combined with claimed structure for fastening the opener to the can so that the cutters may be capable of repeated use as a closure for the opening formed thereby.
- 221, Article Dispensing, subclasses 30+ for article dispensing means not otherwise provided for having cutting or punching means combined therewith for cutting the supply container or the wrapper therefor.
- 222, Dispensing, subclasses 5 and 80+ for fluent material and gas dispensing means with cutting or punching means for material or containers.
- 225, Severing by Tearing or Breaking, subclasses 7 and 94+.
- 227, Elongated-Member-Driving Apparatus, subclass 21 for combined apparatus for driving a member; e.g., nail, into work and means for cutting the work or member, see "Search This Class, Subclass", thereunder for other loci of the above combination in Class 227.
- 229, Envelopes, Wrappers, and Paperboard Boxes, subclasses 120.011+ and 308 for a box or envelope combined with a cutter and subclass 401 for a cup with an attached spoon.
- 289, Knots and Knot Tying, subclass 17.
- 294, Handling: Hand and Hoist-Line Implements, subclasses 2 and 51.
- 299, Mining or In Situ Disintegration of Hard Material, appropriate subclasses.
- 401, Coating Implements With Material Supply, subclass 52 for a cutlery device combined with, or attachable to, a pencil; and subclass 195 for such a device combined with, or attachable to, a pen.
- 404, Road Structure, Process, or Apparatus, see (41) under class definition of Class 30.
- 408, Cutting by Use of Rotating Axially Moving Tool, appropriate subclasses, for cutting of screw threads on tubular or rod-like work by a rotating, axially moving tool having no additional motion during operation; especially subclass 28 for means for cutting in the manner of that class (408) combined with means for cutting tubular or rod-like work to length in the manner of this class (30).
- 425, Plastic Article or Earthenware Shaping or Treating: Apparatus, subclasses 289+ for a preform severing means combined with a shaping or reshaping apparatus for plastic material, especially subclass 292 for a pie-type crimper and trimmer.
- 452, Butchering, appropriate subclasses.
- 463, Amusement Devices: Games, subclass 47.4 for police clubs combined with cutters.

123.3 With means to apply transient fluid to tool:
This subclass is indented under subclass 123. Implement provided with means secured thereto for supplying a liquid medium to the implement.

SEE OR SEARCH CLASS:

83, Cutting, subclass 169 for a cutting machine having means to direct a lubricant to the tool or work.

123.4 To chain saw chain or guide therefor:
This subclass is indented under subclass 123.3. Implement including a plurality of cutter elements pivotally interconnected, one with another, forming a closed loop, said loop being wrapped about guide means, and wherein said liquid supply means supplies a friction reducing substance to said cutter elements or guide means.

SEE OR SEARCH CLASS:

83, Cutting, subclasses 830+ for a cutter assemblage or cutter element therefor; e.g., for a chain saw chain, per se.

123.5 With skin-removal means:
This subclass is indented under subclass 123. Device constructed to remove from the rest of an article of food, that portion of the outer periphery of the article of food that is dissimilar with respect to the inner portion in at least one of the following respects: color, consistency, density, firmness, flexibility, hardness, texture or toughness.

123.6 Including relatively movable parts:
This subclass is indented under subclass 123.5. Device in which there are at least two food-contacting portions, the position of one of which can be varied with respect to the other.

123.7 Including a pointed blade:
This subclass is indented under subclass 123.5. Device in which there is at least one cutter which consists of two cutting edges that intersect at an acute angle.

124 With material-holder or disposal:
Cutlery implements combined with means to hold or dispose of material to be cut, being cut or which has been cut.

(1) Note. This group includes cutlery implements with a receptacle in the handle for holding material, for which see this class, subclass 125.

(2) Note. This group also includes means to grip the material being cut before, during or after it is cut, for which see this class, especially subclasses 134+.

(3) Note. Compare this class, subclasses 40, 41, 535, and 537.

(4) Note. Many cigar tip cutters in this class, subclasses 109+, have means for catching the clippings.

(5) Note. Compare Class 56, Harvesters, subclasses 324+, 327.1+, and 328.1+. Fruit picking cutters which have means for merely gripping the stem of the fruit being cut are in Class 30 while cutters with baskets, chutes, etc., are in Class 56.

(6) Note. See Class 229, Envelopes, Wrappers, and Paperboard Boxes, appropriate subclasses, for paper receptacles combined with spoons or having spoons formed integrally with a portion of the receptacle structure, particularly subclasses 8, 401, and 800.

(7) Note. See Class 294, Handling: Hand and Hoist-Line Implements, subclasses 50.6+ for hand shovels or similar blade-like members having means coacting with the shovel or blade member to retain a load therein or thereon. The line between these classes is that the grippers in this class act to hold the material independently of the cutting blade.

(8) Note. Search Class 7, Compound Tools, subclasses 114+ for cutters combined with hand operable beet lifters or beet pullers.

(9) Note. Search Class 83, Cutting, subclasses 649+ for all patents including a cutting tool and means to support a reserve supply of work in which the work supply is in the form of a web or

strand wrapped upon itself and the supply is supported for rotation upon an axis. Note that the usual lines between this class (30) and Class 83 do not apply in this situation. (See the third paragraph under III A in the definition of Class 83). A patent directed to the same type work supply means combined with a breaking or tearing, as distinguished from a cutting tool, will be found in Class 225.

- (10) Note. Search Class 225, Severing by Tearing or Breaking, for patents including a tearing edge or a breaking device and means to support a reserve supply of work.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 410, for can openers combined with means for holding the lid that is being severed to prevent it from dropping into the can.

125 Handle receptacle:

Cutlery implements having receptacles in their handles for holding material.

- (1) Note. Includes salt and pepper shakers when forming the handle.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 40 and 535.

SEE OR SEARCH CLASS:

- 16, Miscellaneous Hardware (e.g., Bushing, Carpet Fastener, Caster, Door Closer, Panel Hanger, Attachable or Adjunct Handle, Hinge, Window Sash Balance, etc.), subclass 111.1 and the notes thereto appended for handles which also serve as receptacles.

127 Twine guide:

Cutters combined with means to hold or guide the strand of twine or thread to be cut.

SEE OR SEARCH CLASS:

- 225, Severing by Tearing or Breaking, subclass 55 for a fixed-blade carrier slidably supported on running length work in which the work is manually

forced against the blade edge for severing.

- 242, Winding, Tensioning, or Guiding, subclasses 125+ for guides for bobbins and spools.

128 Ejectors or strippers:

Cutlery implements combined with means to eject or strip the material from the implement and/or the material holder.

SEE OR SEARCH CLASS:

- 294, Handling: Hand and Hoist-Line Implements, subclasses 50+ for strippers for hand forks and shovels.
425, Plastic Article or Earthenware Shaping or Treating: Apparatus, subclasses 282+ for a shaping means of the ice-cream scoop type combined with product release means, especially subclasses 284+ for such apparatus including a movable blade.

129 Fork:

This subclass is indented under subclass 128. Implements in which the implement is a culinary or table fork.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 322+, for such forks without a stripper.

SEE OR SEARCH CLASS:

- 56, Harvesters, subclasses 400.08+ for rakes with cleaning or stripping members.
294, Handling: Hand and Hoist-Line Implements, subclass 50 for fork or shovel implements with cleaning means.

130 Annular cutter:

This subclass is indented under subclass 128. Implements in which the implement is an annular cutter.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 301 and 316, for annular cutters, per se.

SEE OR SEARCH CLASS:

294, Handling: Hand and Hoist-Line Implements, subclass 50.5 for annular fork or shovel implements with clearing means.

131 Shears:

This subclass is indented under subclass 124. Implements in which the implement is in the form of a shear; i.e., plural cooperating blade edges move past and in substantial contact to perform the cutting operation.

SEE OR SEARCH THIS CLASS, SUBCLASS:

194+, for shears, per se.
233.5, and see the Notes thereto for shears combined with hair combs where the comb comprises a guide, guard or gauge for the material being cut.

132 Multiple shearing position:

This subclass is indented under subclass 131. Implements in which the implement has a plurality of positions for simultaneously cutting material at all such positions. Usually a plurality of fingers are provided for guiding the material into position to be cut.

(1) Note. These are of the type usually designated hair clippers or hedge trimmers.

SEE OR SEARCH THIS CLASS, SUBCLASS:

196+, for other shears of this type.

133 Suction-disposal means:

This subclass is indented under subclass 132. Implements in which the material is drawn away from the cutter by suction.

SEE OR SEARCH THIS CLASS, SUBCLASS:

41.5, for fluid current disposal means combined with razors.

SEE OR SEARCH CLASS:

15, Brushing, Scrubbing, and General Cleaning, subclasses 300.1+ for devices for the purpose of dislodging and/or removing up wanted foreign material from a work piece or work

surface by contact with a draft of air, steam, or equivalent gaseous fluid.

134 Grip type:

This subclass is indented under subclass 131. Implements in which the material, usually a fruit stem, wire, tree branch or twine, is gripped, usually between two jaws on the cutting blade.

(1) Note. In some patents one blade enters a slot in the other so as to wedge the wire, etc., between the first blade and one wall of the slot. For similar structure, search should be made in this class, subclass 258.

SEE OR SEARCH CLASS:

56, Harvesters, subclasses 328.1+ for other fruit pickers having means other than a mere gripping means for catching the fruit.

135 Spring-opened:

This subclass is indented under subclass 134. Implements in which the blades are spring urged to open position.

SEE OR SEARCH THIS CLASS, SUBCLASS:

261+,

136 Knives and scrapers:

This subclass is indented under subclass 124. Implements in which the material holder is applied to a knife or scraper.

SEE OR SEARCH CLASS:

294, Handling: Hand and Hoist-Line Implements, subclass 51 for hand implements in which a scraper or chipper is combined with a scoop or shovel adapted for use apart from the scraper or chipper.

136.5 With closure or portable receptacle support:

This subclass is indented under subclass 136. Implements, in which (1) the material holder comprises a receptacle provided with a closure, or (2) the knife or scraper is provided with means to support a material holder which is removable from the support for use.

- (1) Note. Most of the implements in this group are ice shavers or scrapers provided with means to receive and hold the removed ice.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 128, for implements of the above defined type, in which the holder closure is combined with means to eject the material from the holder.
164.5+, for ice picks and chippers.

SEE OR SEARCH CLASS:

- 53, Package Making, subclasses 513+ for cutting machines provided with supports for portable receptacles.
220, Receptacles, subclasses 200+ and the notes thereunder, for receptacles provided with closures.
294, Handling: Hand and Hoist-Line Implements, subclass 51 for similar devices in which the chipper or shaver is combined with a scoop or shovel adapted for use apart from the chipper or scraper.

137 Forks:

This subclass is indented under subclass 124. Implements in which the material holder is applied to a culinary or table fork.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 322, for other forks.

138 With sharpening feature:

This subclass is indented under subclass 123. Implements in which a cutter is combined with means to sharpen the cutter or with means to facilitate sharpening.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 35+, for a razor with means to facilitate sharpening the blade thereof.

SEE OR SEARCH CLASS:

- 69, Leather Manufactures, subclass 38.
335, Electricity: Magnetically Operated Switches, Magnets, and Electromagnets, subclass 283 for magnetic cutting blade sharpeners where the cut-

ting edge is held in contact with a magnetic pole piece.

- 451, Abrading, particularly subclasses 28+ for a process of abrading and subclasses 64+ for an abrading machine.

139 Rotary sharpener:

This subclass is indented under subclass 138. Implements in which the sharpener consists of a rotary sharpening element.

SEE OR SEARCH CLASS:

- 451, Abrading, subclasses 420+ for an attachment to a cutting device to sharpen the blade thereof, which attachment uses a rotary abrading tool.

140 With heater:

This subclass is indented under subclass 123. Implements in which a cutter is combined with means to heat the same.

- (1) Note. See Classes 126, Stoves and Furnaces, subclasses 226+ and 401+; and 219, Electric Heating, subclasses 221+ for heated tools in general. The general line is that where significant structure of the cutting tools is claimed other than a mere modification thereof, for the purpose of applying the heater, tool will be found in Class 30 and the heater plus the mere application thereof to a cutter will be found with the heating classes.

141 Spoons with fluid conductors:

Spoons combined with fluid conductors. Usually the conduit runs through the handle and it may or may not communicate with the bowl of the spoon.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 324+, for other spoons.

SEE OR SEARCH CLASS:

- 239, Fluid Sprinkling, Spraying, and Diffusing, subclass 33, and see the notes thereto for fluid conductors designed to be carried around by the user and to be applied to a fluid source of supply for drinking purposes.

- 425, Plastic Article or Earthenware Shaping or Treating: Apparatus, subclass 277 for an ice-cream scoop or plugger having a shaping cavity and including integral heat exchange means.
- 142 Cutlery:**
Combined implements in which one cutlery implement is combined with another such implement.
- (1) Note. This group of subclasses is to be distinguished from subclass 122 of this class, where one cutlery implement is changeable into another such implement, but not combined.
- (2) Note. Where two or more of the same type of cutlery are combined, they will be found in this class with that particular type. See especially subclasses 152, 176, 197, 226+, 279.2, 287, 299+, and 412.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
34.05, for razors combined with other cutlery.
90.6, for a first cutter means for cutting a strand-encircling sheath in a longitudinal direction combined with a second cutter means for cutting the sheath in another direction.
408, for can openers combined with other cutlery.
- 143 Sheathed:**
This subclass is indented under subclass 142. Implements in which the various implements or some of them are foldable or otherwise retractable into the handle or have some other form of sheath to protect the blades when not in use.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
154, and the notes thereunder, for other sheathed cutlery.
- 144 Saws:**
Hand manipulated implements in which a saw is combined with some other form of cutter.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
166.3+, and the notes thereunder, for saws, per se.
- 145 Nippers and shears:**
Hand implements having at least two sets of cutters, one of which is in the form of two cooperating blades having edges which meet to perform the cutting operation, and the other is in the form of two cooperating blades having edges which move past and in substantial contact with each other to perform the cutting operation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
176, 197, and 226+.
- 146 Shears and knives:**
Hand implements in which two cooperating blades having edges which move past and in substantial contact with each other to perform the cutting operation are combined with a knife blade.
- 147 Knives, forks, and spoons:**
Knives, culinary forks and spoons combined in one implement.
- 148 Knives and forks:**
Knives and culinary forks combined in one implement.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
147, for knives, culinary forks and spoons combined in one implement.
- SEE OR SEARCH CLASS:
7, Compound Tools, subclass 115 for pitch forks combined with cutters.
- 149 Knives and spoons:**
Knives and spoons combined in one implement.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
147, for knives, culinary forks and spoons combined in one implement.

150 Forks and spoons:

Culinary forks and spoons combined in one implement.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

147, for knives, culinary forks and spoons combined in one implement.

SEE OR SEARCH CLASS:

294, Handling: Hand and Hoist-Line Implements, subclass 51.

151 SHEATHED:

Cutlery implements which are foldable or otherwise retractable into the handle or have some other form of sheath to protect the blade while not in use.

(1) Note. Pocket knives are in this group.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

143 and 90.

SEE OR SEARCH CLASS:

7, Compound Tools, subclasses 118+ and 167+ for sheathed compound tools. The line is as follows: Class 30 takes pocket tools showing and claiming handles for cutlery implements or showing cutlery and other tools but claiming only features limited to cutlery. Class 7 takes patents showing and claiming cutlery implements combined with other implements and handles for tools showing cutlery implements and other tools.

16, Miscellaneous Hardware (e.g., Bushing, Carpet Fastener, Caster, Door Closer, Panel Hanger, Attachable or Adjunct Handle, Hinge, Window Sash Balance, etc.), subclass 111.1 for handles which include in the handle structure a storage cavity or other receptacle.

81, Tools, subclass 3.35 for sheathed receptacle closure removing tools and subclasses 177.2 and 177.6 for a wrench having a portion which is foldable or retractable into the handle.

132, Toilet, subclass 143 for hair combs combined with a teeth guard or

sheath, subclass 76.2 for manicure tools where a portion of the device is folded, withdrawn, or otherwise sheathed when not in use, including sheaths, per se, subclasses 286+ for toilet kits, and subclasses 328+ for tooth picks in which the tooth engaging part of the tool is folded, slid or retracted into the handle when not in use.

152 Plural blade:

This subclass is indented under subclass 151. Implements in which the handle or sheath is specially designed to sheathe a plurality of cutlery implements of the same or unspecified nature.

(1) Note. This subclass is not intended to take patents where a plurality of blades are provided either at opposite ends or at the same end when this amounts to a mere duplication, but some structure must be claimed; e.g., a division plate, etc., which limits the invention to a plural blade tool.

(2) Note. See this class, subclasses 299+, and the notes thereunder, for other plural blade tools.

(3) Note. Where a plurality of blades are provided but different characters of implements are specified, they will be found in this class, subclass 143, or in Class 7, Compound Tools, subclasses 118+ and 167+.

153 Folding sheath:

This subclass is indented under subclass 151. Implements in which the sheath, usually the handle, has pivoted parts whereby it may be folded over the blade to protect it.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

255 and 330+.

154 Compound blade movement:

This subclass is indented under subclass 151. Implements in which the blade has more than one simple movement, such as pivoting or reciprocating, in being moved into or from retracted position in the sheath or handle.

155 Pivoted blade:

This subclass is indented under subclass 151. Implements in which the blade is pivoted to the sheath or handle so as to be folded into the sheath or handle.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

258, where a pivoted shear blade moves into a slot in the second blade during the cutting operation.

321, and the notes thereto.

527, for razor handles pivotally connected to blade, especially subclass 528 for blades extending longitudinally to the handle, where the blade is designed to fold into the sheath or handle.

SEE OR SEARCH CLASS:

132, Toilet, subclass 76.2.

156 Detachable blade type:

This subclass is indented under subclass 155. Implements in which the blade is detachable from the sheath or handle or from a separate holder.

(1) Note. For unsheathed detachable blade knives, see this class, subclasses 329+ and Class 279, Chucks or Sockets, appropriate subclasses.

157 End tang connected:

This subclass is indented under subclass 156. Implements in which the blade has an end tang which is detachably connected to the sheath or handle.

(1) Note. Compare this class, subclasses 236 and 260.

158 With blade-opening means:

This subclass is indented under subclass 155. Implements in which means is provided for positively moving the blade from the sheath, either partially or wholly.

(1) Note. Does not include mere nicks in the blade to be engaged by the finger nail or some pointed instrument for the purpose of opening the blade.

159 Spring-opened:

This subclass is indented under subclass 158. Implements in which a spring is provided for projecting the blade from its sheath or handle.

160 Locked blade:

This subclass is indented under subclass 156. Implements in which means is provided to lock or latch the blade either in closed or open position or both.

(1) Note. Practically all the patents in this class, subclass 159, show blade locking means and search should be continued there.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

161,

161 Locked blade:

This subclass is indented under subclass 155. Implements in which means is provided to lock or latch the blade either in open or closed position, or both.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

159 and 160.

162 Sliding blade:

This subclass is indented under subclass 151. Implements in which the blade may be slid to or from retracted position in the sheath or handle.

(1) Note. This subclass is to be distinguished from subclass 320 of this class, which takes patents in which structure is provided to hold the blade in a plurality of positions intermediate the retracted and open position, whereas in this subclass the blade is either wholly retracted or wholly open.

SEE OR SEARCH CLASS:

401, Coating Implements With Material Supply, subclasses 99+ for an implement including a coating tool with material supply which is slidably projectable and retractable between an exposed and a concealed position.

163 Gravity-opened:

This subclass is indented under subclass 162. Implements in which when the implement is held in a vertical position and a latch released, the blade will drop by gravity to extended position from the sheath or handle.

164 Elements:

Elements, such as handles, scales, linings, etc., limited by structure to use with sheathed cutlery.

- (1) Note. Elements limited to a particular type of sheathed cutlery will be found in the appropriate subclass in this class.
- (2) Note. Handles and blades of more general utility will be found in this class, subclasses 340+ and 346+.
- (3) Note. Elements and accessories of other cutlery will be found in this class with the particular type. See especially subclass 537, except where not limited to any type, for which see subclass 1.

164.5 ICE PICK OR CHIPPER TYPE:

Implements of the type especially adapted for picking or chipping ice or similar hard material, not provided for elsewhere.

- (1) Note. Most of these implements are provided with sharp points for engaging the material as distinguished from a cutting edge.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 122, for ice picks or chippers provided with a plurality of blades adapted for interchangeable use.
- 124, for ice picks and chippers provided with means to hold the removed ice.
- 136+, for ice shavers or scrapers provided with means to receive and hold the removed ice.
- 164.9, for pointed scratching implements.
- 142, for implements having a plurality of ice picking, chipping or shaving portions.
- 151+, for ice picks and chippers provided with means to sheath the operating part of the implement.

- 366+, for pointed perforating or indenting implements.

SEE OR SEARCH CLASS:

- 7, Compound Tools, for ice picks or chippers combined with other tools, one of which is not of the type provided for in Class 30, Cutlery, particularly subclass 158 for ice handling tongs combined with ice picks or chippers.
- 15, Brushing, Scrubbing, and General Cleaning, subclasses 236.01+ for hand manipulable scrapers for cleaning ice coatings from miscellaneous objects.
- 30, Cutlery, subclasses 478+ for a hand operated plane.
- 37, Excavating, subclasses 266+ for hand manipulable scrapers for removing ice from pavements and analogous surfaces.
- 125, Stone Working, appropriate subclasses, for machines for trimming, scoring or splitting ice blocks and subclass 36 for implements limited by structure to use as splitters or scorers or cutters combined with splitters for ice.
- 175, Boring or Penetrating the Earth, subclass 18 for means to bore a hole in ice.
- 241, Solid Material Comminution or Disintegration, appropriate subclasses, for machines for comminuting ice by shaving or crushing.
- 294, Handling: Hand and Hoist-Line Implements, subclass 61 for pointed implements for impaling articles for the purpose of handling, subclass 51 for ice chippers or scrapers combined with material handling means such as scoop or shovel, subclass 54 for shovels combined with scrapers or chippers for removing ice from pavements, et cetera.
- 299, Mining or In Situ Disintegration of Hard Material, subclasses 24+ for a machine or cutter specifically adapted to work ice in situ.

164.6 With impact-moving means:

This subclass is indented under subclass 164.5. Implements in which there is provided means to impart a blow to the operating portion of the pick or chipper to effect movement thereof.

SEE OR SEARCH THIS CLASS, SUBCLASS:

277, for cutting tools provided with impact blade moving means.

164.7 With guard and/or guide:

This subclass is indented under subclass 164.5. Implements in which there is provided (1) means to guide the operating part of the chipper or pick in a predetermined relation to the ice, or (2) a guard to control the movement of the removed ice.

SEE OR SEARCH THIS CLASS, SUBCLASS:

124+, for ice picks or chippers provided with means to hold the removed ice particles.

162+, for ice picks or chippers provided with means to sheath the pick member which means may constitute a guide therefor while in use.

286+, for cutting tools provided with guards or guides.

164.8 Plural points or edges:

This subclass is indented under subclass 164.5. Implements in which the portion of the ice pick or chipper which operates on the ice comprises a plurality of points or edges.

SEE OR SEARCH THIS CLASS, SUBCLASS:

172, 279.2, 287, and 299+, for cutting tools provided with plural blades or cutting edges.

164.9 SCRATCHING IMPLEMENTS:

This subclass is indented under the class definition. Devices for marking by means of a point or cutting edge.

(1) Note. These devices are often called scoring tools, scribes, or scratch awls.

(2) Note. A patent for a brush having glass bristles for scratching, and thereby eras-

ing indicia from, a surface will be placed in this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

164.5, for ice picks.

366+, for pointed perforating or indenting implements.

SEE OR SEARCH CLASS:

15, Brushing, Scrubbing, and General Cleaning, subclasses 435+ for dip-pen type marking devices.

33, Geometrical Instruments, subclasses 18.1+ for marking devices combined with structure to make a geometrical instrument.

81, Tools, subclass 9.2 for an indenting or a manifolding stylus (i.e., respectively, one which makes an impression by grooving without removing material; or by transfer to an underlying surface); and subclass 9.21 for a stamp scarifier.

83, Cutting, subclasses 879+ for machines and/or processes of scoring material; see the "Search Notes" under subclass 6 for other classes providing for scoring of material.

401, Coating Implements With Material Supply, appropriate subclasses, for a marking device with material supply; e.g., subclasses 49+ for a pencil.

164.95 Having traction-rotated tool (e.g., glass cutters):

This subclass is indented under subclass 164.9. Device wherein the marking means comprises a disk having a cutting edge on the radially outer periphery thereof and turnable about its central axis during operation, which disk is driven by frictional engagement with the work-piece.

(1) Note. Many of the patents in this subclass are particularly adapted to mark hard glass or hard glass-like material. See Class 65, Glass Manufacturing, subclass 112 and the collection of notes thereunder for glassworking or treating combined with cutting.

165 CUTTING TOOLS:

This is the generic subclass for hand manipulated cutting tool of general utility not provided for in the subclasses below.

- (1) Note. An organized cutter must be claimed to cause classification in this or the indented subclasses. Inventions within the class definition but which may be applied to cutters, spoons, or forks, are placed in subclass 1 as are sub-combinations not provided for in subclasses 340+ and 346+.
- (2) Note. Where the invention resides solely in the material from which the cutting tool is made, it will be found in this class, subclass 345.
- (3) Note. For cutters limited to a special use, see this class, subclasses 2-121.
- (4) Note. For convertible cutlery, see this class, subclass 122.
- (5) Note. For combined cutlery and cutlery combined with other things, see this class, subclasses 123+ and the notes thereunder.
- (6) Note. For sheathed cutlery, see this class, subclasses 151+.

SEE OR SEARCH CLASS:

- 144, Woodworking, subclass 28.11 for a hand-manipulable pencil-sharpening device including a cutter and a work holder or guide relatively movable thereto so as to facilitate the sharpening operation.

166.3 Saw:

This subclass is indented under subclass 165. Cutting tool, including a blade carrying a set of cutting teeth, adapted to cut relatively hard material; e.g., wood or metal.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 144, for the combination of a saw with a distinct cutlery device.

SEE OR SEARCH CLASS:

- 19, Textiles: Fiber Preparation, subclasses 55+ for a saw adapted for use in fiber preparation.
- 33, Geometrical Instruments, subclass 202 for an indicating gauge for use with a saw.
- 76, Metal Tools and Implements, Making, subclasses 25.1+ for a method or apparatus for making a saw.
- 83, Cutting, subclasses 13+ for a method of cutting, generally, including cutting with a saw; appropriate subclasses for apparatus for cutting, generally, with a base mounted machine, especially subclasses 835+ for a saw blade, per se, or the component parts thereof.
- 125, Stone Working, subclasses 12+ for the method or apparatus for sawing stone.
- 128, Surgery, appropriate subclasses for method or apparatus for sawing in the inspection or treatment of diseases or abnormal conditions of the body of a man or of a lower animal.
- 144, Woodworking, subclasses 1.1+ for the method of shaping wood, generally, particularly for the method of sawing wood and appropriate other subclasses for apparatus for cutting wood, generally, with a saw mounted on a fixed base not provided for elsewhere, particularly for sawing to give a desired surface configuration to a workpiece and for combined woodworking operations. Note especially subclasses 8, 18, 35.1+, 48.1+, 189, and those subclasses under the title "cutters".
- 147, Coopering, appropriate subclasses for the method or apparatus of using a saw in making a barrel.
- 452, Butchering, subclasses 160+ for carcasses splitting saws.

167 Chisel:

This subclass is indented under subclass 165. Device including an elongated shank having a cutting edge at one end.

SEE OR SEARCH CLASS:

- 125, Stone Working, subclasses 40+ for an impact-driven tool adapted to cut stone or a stone-like material.

- 144, Woodworking, for a chiseling machine.
- 167.1 Compound:**
This subclass is indented under subclass 167. Device having two or more cutting edges.
- 167.2 With gauge:**
This subclass is indented under subclass 167. Device including a member adapted to either limit depth of cut or measure a dimension.
- 168 Cold chisels:**
This subclass is indented under subclass 165. Cutting tools commonly known as cold chisels for cutting metal in a cold state.
- (1) Note. This subclass is not intended to take tools intended for use with organized machines such as are not hand manipulable under the class definition.
- (2) Note. Compare this class subclass 277.
- (3) Note. For other chisels attention is directed to the following classes:
- SEE OR SEARCH CLASS:
76, Metal Tools and Implements, Making, subclass 28.
125, Stone Working, subclass 41.
142, Wood Turning, subclasses 21, 35, and 42+.
144, Woodworking, subclasses 75+ for a chiseling machine.
147, Coopering, subclass 39.
173, Tool Driving or Impacting, appropriate subclasses for subject matter directed to driving or impacting a tool or the like, and particularly subclasses 90+ for an impacting device adapted to drive a cold chisel.
299, Mining or In Situ Disintegration of Hard Material, subclasses 69+ and 100.
- 169 Scrapers:**
This subclass is indented under subclass 165. Cutting tools in which the blade edge or the blade edges are so formed and so related to the handle that the tool is especially adapted to be moved over a single surface and/or a plurality of adjacent or contiguous surfaces to remove material from such surface or surfaces by a scraping action of the edge or edges of the tool.
- (1) Note. Cutting tools having a more general cutting function will be found in the structure subclasses of this class, even though called scrapers.
- (2) Note. Cutting tools with single movable blades, even though called "scrapers", will be found in this class, subclasses 272.1+.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
136, for scrapers with means to catch the material, and subclasses 329+ for holders for detachable scraping blades.
- SEE OR SEARCH CLASS:
7, Compound Tools, subclass 124 for a scraper, used for erasing, combined with a burnishing tool which restores the disturbed area to smooth condition.
15, Brushing, Scrubbing, and General Cleaning, appropriate subclass, under subclasses 104.001+ for special scraping implements and for scrapers combined with other general cleaning implements, and subclass 236.01 for scraping tools for a general cleaning purpose.
425, Plastic Article or Earthenware Shaping or Treating: Apparatus, subclass 458 for a putty-type knife compressing a hand movable, substrate traversing, plural dimension shaping means.
452, Butchering, subclasses 102+ for scraping implements specialized for use in the butchering art.
- 170 Wheeled:**
This subclass is indented under subclass 169. Scrapers in which the implement is provided with wheels whereby it can be more readily drawn over the surface to be scraped.
- 171 Hoe type:**
This subclass is indented under subclass 169. Scrapers in which the blade is set at a substantial angle to the handle somewhat in the manner of an ordinary hoe so that the blade can be

pulled over the surface to be scraped to perform the scraping action.

- (1) Note. See this class, subclass 317, and the notes thereunder, for other pull cutters.

172 Plural blade:

This subclass is indented under subclass 169. Scrapers which are provided with more than one blade. Usually all of the blades are operative at the same time.

- (1) Note. See this class, subclasses 299+ and the notes thereunder, for other plural blade cutting tools.
- (2) Note. Single scraper blades having plural edges are not here, but are in subclass 169 or other appropriate indented subclasses.

173 Plural cooperating blades:

Cutting tools in which two or more blades cooperate to perform the cutting operation; at least one of the blades must be movable relative to the other.

- (1) Note. Does not include plural blade knives even though all such blades operate simultaneously, for which see this class, subclasses 299+, and the notes thereto.

SEE OR SEARCH CLASS:

433, Dentistry, subclass 1 for veterinary crown slitters; and subclasses 144+ for other crown slitters.

174 Corer type:

This subclass is indented under subclass 173. Implements in which the two blades move toward one another and are of such a shape as to cut a depression in the surface of the material, usually for the purpose of cutting a core from fruit.

- (1) Note. Search should be continued in this class, subclasses 113.1+, and for other coring tools, search should be continued in subclasses 278, 301+, 316, and 352.

175 Nippers:

This subclass is indented under subclass 173. Implements in which the cooperating blades have edges which meet edge to edge or in which one of the blades has a cutting edge which contacts an anvil on the other blade to perform the cutting operation.

- (1) Note. For combined nippers and shears, see this class, subclass 145.
- (2) Note. Search this class, subclass 28.
- (3) Note. Many tools in Class 81, Tools, subclasses 52+ and 300+ have structures similar to those in this group of subclasses, except for the cutting edges, and search for the general organization should be continued there.

SEE OR SEARCH CLASS:

81, Tools, particularly subclasses 300+ for tool jaw(s) positioned by relatively movable plural handles (e.g. pliers), and see (3) Note above.

176 Multiplex:

This subclass is indented under subclass 175. Nippers in which two or more independent cutter organizations of the nipper type are provided.

SEE OR SEARCH THIS CLASS, SUBCLASS:

145, for similar organizations where one of the cutter organizations is of the nipper type and the other of the shear type.

226+, where both are of the shear type, and compare subclasses 197 and 226+.

177 Adjustable-position cutter:

This subclass is indented under subclass 175. Nippers in which the cutter organization is adjustable to a plurality of positions relative to the handle.

- (1) Note. Compare this class, subclass 320, and see the search notes thereunder.

178 Form cutter:

This subclass is indented under subclass 175. Nippers in which the blades are so formed as to make a particular shaped cut.

- (1) Note. Compare this class, subclasses 229+, 301, 316, and 355.

179 With guide and/or gauge:

This subclass is indented under subclass 175. Nippers which are provided with a material or cutter guide or gage.

- (1) Note. Compare this class, subclasses 233 and 286+.

180 With motor:

This subclass is indented under subclass 175. Nippers provided with a motor as the blade moving means.

- (1) Note. See this class, subclass 401, and the notes thereunder, for other cutting tools with motor driving means.

SEE OR SEARCH CLASS:

60, Power Plants, subclasses 632+ for one shot explosion actuated expansible chamber type motors.

181 Compound blade movement:

This subclass is indented under subclass 175. Nippers in which the blades move relative to each other, other than in a simple pivoting or straight line reciprocating movement toward one another during the cutting operation.

- (1) Note. Compare this class, subclasses 204, 237+, and 259.

SEE OR SEARCH CLASS:

83, Cutting, subclasses 642 through 647.5 for compound movement cutters of that class (83) type.
241, Solid Material Comminution or Disintegration, subclasses 201+ for compound movement comminutors of that class (241) type.

182 Reciprocating blade:

This subclass is indented under subclass 175. Nippers in which the blades move in a straight line reciprocating movement toward one another during the cutting operation.

- (1) Note. Compare this class, subclasses 208+, 241+, and 272.1+.

183 Lever and cam:

This subclass is indented under subclass 182. Nippers in which motion is imparted to the blade or blades by means of a lever and cam.

- (1) Note. Compare this class, subclasses 189 and 219.

184 Lever and link:

This subclass is indented under subclass 182. Nippers in which motion is imparted to the blade or blades by means of a lever and link.

- (1) Note. Compare this class, subclasses 190, 242, and 251.

185 Toothed slide and lever:

This subclass is indented under subclass 182. Nippers in which motion is imparted to the blade or blades by means of teeth on the sliding part and a toothed lever to cooperate therewith.

- (1) Note. Compare this class, subclass 243.

186 Pivoted blade:

This subclass is indented under subclass 175. Nippers in which the blades are pivoted together so as to move toward each other in the cutting operation.

- (1) Note. Compare this class, subclasses 208+, and 244+.

187 With blade-moving means:

This subclass is indented under subclass 186. Nippers in which some means is provided for multiplying the power applied to the handles in moving the blades or some other mechanism is provided for moving the blades other than handles rigid with the blades.

- (1) Note. Compare this class, subclasses 245+.

- (2) Note. See this class, subclass 272.1, and the notes thereunder, for other cutting implements with blade moving means.
- 188 One movable blade:**
This subclass is indented under subclass 187. Nippers in which only one of the blades is movable during the cutting operation.
- (1) Note. Compare this class, subclasses 249+.
- 189 Lever and cam:**
This subclass is indented under subclass 188. Nippers in which motion is imparted to the blade by means of a lever and cam.
- (1) Note. Compare this class, subclasses 183 and 219.
- 190 Lever and link:**
This subclass is indented under subclass 188. Nippers in which motion is imparted to the blade by means of a lever and link.
- (1) Note. Compare this class, subclasses 184, 242, and 251.
- 191 Pivoted handles:**
This subclass is indented under subclass 187. Nippers in which the power applying means are pivoted handles suitably connected to the blades.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
211, 250+, and 252.
- 192 Handles interlinked or geared:**
This subclass is indented under subclass 191. Nippers in which the operating handles have separate pivots but are interconnected between the pivots so as to move in unison.
- 193 Common pivot:**
This subclass is indented under subclass 191. Nippers in which the operating handles have a common pivot.
- 194 Shears:**
This subclass is indented under subclass 173. Implements in which the blades have edges which move past and in substantial contact with each other to perform the cutting operation.
- (1) Note. For combined nippers and shears and combined shears and knife, see this class, subclasses 145 and 146.
- (2) Note. Many patents in this class, subclass 109, cut by a shearing action and search should be continued there.
- (3) Note. Many patents in Class 81, Tools, subclasses 52+ and 300+ have structure similar to this group in so far as the operating mechanism is concerned, and search for the operating mechanism should be continued there.
- (4) Note. Search this class, subclasses 29, 43, 120, 131, and 428.
- (5) Note. For shears adapted for use on portions of the human body, see Class 606, Surgery, subclasses 174+, for shear cutting devices used on human or other animal body portions.
- SEE OR SEARCH CLASS:
81, Tools, particularly subclasses 300+ for tool-jaw(s) positioned by relatively movable plural handles (e.g., pliers), and see (3) Note above.
- 195 Hair thinners:**
This subclass is indented under subclass 194. Shears which are specially designed to thin hair. The blades usually have noncutting portions.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
30+, for hair planers.
- 196 Multiple shearing position:**
This subclass is indented under subclass 194. Shears in which the implement has a plurality of positions for simultaneously cutting material at all such positions. Usually a plurality of fingers are provided for guiding the material into position to be cut.
- (1) Note. Hair clippers and hedge trimmers have been placed in this and indented subclasses.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
132+, for similar shears combined with a material holder or disposal.
258, for single blade and slot cutters which cut out a narrow strip of material.
- 197 Multiplex:**
This subclass is indented under subclass 196. Shears which have a plurality of independent cutter organizations.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
145, 176, and 226+.
- 198 Body-supported:**
This subclass is indented under subclass 196. Shears which are provided with means whereby they may be supported from the body of the operator or the person's body whose hair is being cut.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
231+, 290+, and 296.1+ and the notes thereto.
- 199 Adjustable angle:**
This subclass is indented under subclass 196. Shears in which the cutter organization is adjustable relative to the handles.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
320+, and the notes thereunder, for other cutters which are adjustable relative to the handle.
- 200 With cut regulator:**
This subclass is indented under subclass 196. Shears in which the cutter is provided with some means by which the length of cut may be regulated. The majority of the patents are hair clippers and the length of cut is regulated by means of the regulator contacting the head of the person whose hair is being cut.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
233.5, for shears of the single position type combined with hair combs where the comb comprises a guide, guard or gauge for the material being cut.
286, and see the notes thereto for other cutlery with guards and/or guides.
- 201 Adjustable:**
This subclass is indented under subclass 200. Shears in which the regulator is adjustable relative to the cutter organization.
- 202 Automatic:**
This subclass is indented under subclass 201. Shears in which the regulator is adjusted automatically, usually by the operation of the clipper.
- 203 Convertible, power- or manual-operated:**
This subclass is indented under subclass 196. Shears which have structure whereby they may be operated by hand and also means whereby they may be power operated.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
122, and the notes thereto.
- 204 Compound blade movement:**
This subclass is indented under subclass 196. Shears in which the blades move relatively, other than in a simple pivoting or straight line reciprocating movement, during the cutting operation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
181, 237+, and 259.
- 205 Rotary blade:**
This subclass is indented under subclass 196. Shears in which at least one of the blades has a rotary motion during the cutting operation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
347, for rotary blades, per se, and see the notes thereunder for other rotary blade cutting tools.
- 206 With motor:**
This subclass is indented under subclass 205. Shears in which the blade or blades are moved by means of a motor.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
401, and the notes thereunder, for other motor driven cutting tools.
- 207 With blade-tension means:**
This subclass is indented under subclass 205. Shears in which there is provided means for applying the proper pressure between the cooperating blades.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
213, 214, 221+, and 266+.
- 208 Reciprocating and/or oscillating blade:**
This subclass is indented under subclass 196. Shears in which at least one of the blades reciprocates or oscillates relative to the other.
- 209 Reciprocating or oscillating power source:**
This subclass is indented under subclass 208. Shears in which the blades are moved by the application of a reciprocating or oscillating power source.
- SEE OR SEARCH CLASS:
74, Machine Element or Mechanism, appropriate subclasses, for the mechanical movements, per se.
- 210 With motor:**
This subclass is indented under subclass 209. Shears in which the reciprocating or oscillating power source is in the form of a motor.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
401, and the notes thereunder, for other motor driven cutting tools.
- 211 Pivoted handles:**
This subclass is indented under subclass 209. Shears in which the reciprocating or oscillating power source is in the form of pivoted handles.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
191+, 250+, and 252.
- 212 With spring return:**
This subclass is indented under subclass 211. Shears in which the handles are returned to initial position by means of a spring.
- (1) Note. Compare this class, subclasses 261+.
- 213 And blade-tension means:**
This subclass is indented under subclass 212. Shears in which means is provided to apply the proper pressure between the cooperating blades.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
207, and the notes thereunder.
- 214 With blade-tension means:**
This subclass is indented under subclass 211. Shears in which means is provided to apply the proper pressure between the cooperating blades.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
207, and see the notes thereunder.
- 215 Rotary power source:**
This subclass is indented under subclass 208. Shears in which movement is imparted to the blade or blades from a rotary power source.
- (1) Note. See this class, subclass 401, and the notes thereunder, for motor driven tools generally.
- SEE OR SEARCH CLASS:
74, Machine Element or Mechanism, subclass 25, or appropriate subclass thereunder.
- 216 With motor:**
This subclass is indented under subclass 215. Shears in which the rotary power source is in the form of a rotary motor.
- (1) Note. See this class, subclass 401, and the notes thereunder, for other motor driven cutting tools.

217 Crank or cam, pitman and lever:

This subclass is indented under subclass 215. Shears in which the movement is imparted to the blades by means of a crank or cam, a pitman and a lever.

SEE OR SEARCH CLASS:

74, Machine Element or Mechanism, subclasses 42+.

218 Crank or cam, lever and slide:

This subclass is indented under subclass 215. Shears in which movement is imparted to the blade or blades by means of a crank or cam, a lever and a sliding element, which latter may be the blade.

SEE OR SEARCH CLASS:

74, Machine Element or Mechanism, subclasses 45+.

219 Crank or cam and lever:

This subclass is indented under subclass 215. Shears in which movement is imparted to the blade or blades by means of a crank or cam and a lever.

(1) Note. Compare this class, subclasses 183 and 189.

SEE OR SEARCH CLASS:

74, Machine Element or Mechanism, subclasses 47+, and 54.

220 Crank or cam and slide:

This subclass is indented under subclass 215. Shears in which movement is imparted to the blade or blades by means of a crank or cam and a sliding element, which latter may be the blade.

SEE OR SEARCH CLASS:

74, Machine Element or Mechanism, subclasses 49+ and 55.

221 With blade-tension means:

This subclass is indented under subclass 208. Shears in which means is provided to apply the proper pressure between the cooperating blades.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

207, and see the notes thereunder.

222 And friction reducing feature:

This subclass is indented under subclass 221. Shears in which some friction reducing feature is provided including lubrication.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

224 and 267.

223 Blade assembly:

This subclass is indented under subclass 196. Inventions in which the claimed invention resides in the relationship and form of both cooperating blades.

(1) Note. Many patents in this class, subclasses 196+, show blade assemblies but claim in addition some other feature and to make a complete search on the subject matter of this subclass, the above subclasses should also be searched.

(2) Note. Compare Class 56, Harvesters, subclasses 289+.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

225, for the structure of a single multiple position blade.

224 With friction reducing feature:

This subclass is indented under subclass 223. Inventions in which means is provided to reduce the friction of the moving blades including lubricating features.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

222 and 267.

225 Blades:

Inventions in the multiple shearing position blade, per se.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

346+, for other cutting blades.

- 226 Multiplex:**
This subclass is indented under subclass 194. Shears in which a plurality of independent cutter organizations are provided for independent cutting operations.
- (1) Note. For combined shears and nippers, see this class, subclass 145.
- (2) Note. Where the shears have two sets of handles and/or blades or where the handles are reversible and both edges of the blades are sharpened for the purpose of adapting them for use in either hand, see this class, subclass 256.
- (3) Note. Compare this class, subclasses 176 and 197.
- 227 With blade-moving means:**
This subclass is indented under subclass 226. Shears in which some means is provided to multiply the power applied to the handles.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
245+, and see subclass 272.1 and the notes thereto, for other cutting tools with blade moving means.
- 228 With motor:**
This subclass is indented under subclass 194. Shears in which a motor is provided to move the blade or blades.
- (1) Note. See this class, subclass 401 and the notes thereunder, for other motor driven cutting tools.
- SEE OR SEARCH CLASS:
60, Power Plants, subclasses 632+ for one shot explosion actuated expansible chamber type motors.
- 229 Form cutter:**
This subclass is indented under subclass 194. Shears in which the blades are so formed or the work held in such a position that a particular shaped cut can be made.
- (1) Note. See this class, subclass 178 and the notes thereunder.
- 230 Zigzag:**
This subclass is indented under subclass 229. Shears in which the form of cut is of zigzag or wavy shape.
- (1) Note. Pinking shears are here.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
355, for wavy blades, per se.
- 231 With supports:**
This subclass is indented under subclass 194. Shears combined with a support therefor.
- (1) Note. Compare this class, subclasses 290+ and 296.1+, and see the notes to the last subclass for other supported cutters.
- SEE OR SEARCH CLASS:
248, Supports, for supports of general utility.
269, Work Holders, appropriate subclasses for supports for holding work for the disclosed purpose of treating the work.
- 232 Hand or finger:**
This subclass is indented under subclass 231. Shears in which some means other than the ordinary handles are provided to attach the shears to the hand or fingers of the operator.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
291 and 298.
- 233 With guard, guide and/or gauge:**
This subclass is indented under subclass 194. Shears which have means (1) so related to an edge as to prevent cutting other than in a desired manner, (2) to cause the shears to move in a predetermined relation to the material being cut, (3) to cause the material being cut to move in a predetermined relation to the shears, (4) to protect the hand from injury by either the shears or the material being cut, and/or (5) comprising a work table or other support for the material being cut.
- (1) Note. The same device may function as either guard, guide, or gauge.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
179, for guards and/or guides for nippers.
286+, and see the notes thereto, for other cutlery with guards and/or guides.
- 233.5 Comb type:**
This subclass is indented under subclass 233. Shears wherein the guide, guard or gauge is in the form of a hair comb.
- (1) Note. Many of these combs serve as gauges for determining the length of hair being sheared.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
200+, for comb type guards or guides for multiple position type shears.
- SEE OR SEARCH CLASS:
7, Compound Tools, subclass 136 for combined shears and hair combs, where the two devices are independently used.
132, Toilet, subclasses 219+ for toilet combs, per se, and combined with other structure when not elsewhere provided for.
- 234 Spring joint:**
This subclass is indented under subclass 194. Shears in which the blades and/or handles are connected together by a spring independently of any pivot or other such attaching means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
111,
- 235 Offset handles and blade:**
This subclass is indented under subclass 234. Shears in which the plane of the blades is offset from that of the handles.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
248, 257, and 318.
- 236 Detachable blade:**
This subclass is indented under subclass 234. Shears in which the blade is detachable from the handle.
- (1) Note. Where the blade edge is detachable from the blade and substantially coextensive therewith, search should be made in this class, subclass 349.
- (2) Note. Compare this class, subclasses 157 and 260.
- 237 Compound blade movement:**
This subclass is indented under subclass 194. Shears in which the blades move relatively, other than in simple pivoting or straight line reciprocating movement, during the cutting operation. This is usually for the purpose of giving the shears a draw cut. Where the pivot is offset for the same purpose, see this class subclass 259.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
181 and 204.
- SEE OR SEARCH CLASS:
83, Cutting, appropriate subclasses, especially subclasses 638, 642+, and 644+ for "draw-cut" devices in that class.
- 238 One movable blade:**
This subclass is indented under subclass 237. Shears in which movement is imparted to but one of the blades.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
188+ and 249+.
- 239 Intermediate pivot:**
This subclass is indented under subclass 237. Shears in which the blades are rigid with the handles and pivoted intermediate the handles and blade ends.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
254+.
- 240 Rotary blade:**
This subclass is indented under subclass 194. Shears in which a rotary movement is imparted to the blade or blades.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
347, for rotary blades, per se, and see the notes thereunder for other rotary blade cutting tools.
- 241 Reciprocating blade:**
This subclass is indented under subclass 194. Shears in which a straight line reciprocating movement is imparted to the blade or blades in the cutting operation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
113, 182+, 208+, and 272.1+.
- 242 Lever and link:**
This subclass is indented under subclass 241. Shears in which the movement is imparted to the blade or blades by a lever and link.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
184, 190, and 251.
- 243 Toothed lever and slide:**
This subclass is indented under subclass 241. Shears in which motion is imparted to the blade or blades by means of teeth on the sliding part and a toothed lever to cooperate therewith.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
185,
- 244 Pivoted blade:**
This subclass is indented under subclass 194. Shears in which the blades are pivoted together.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
112, 186+, and 208+.
- SEE OR SEARCH CLASS:
83, Cutting, particularly subclasses 597+ for a cutter of that class (83) type with simple oscillating motion.
- 245 With blade-moving means:**
This subclass is indented under subclass 244. Shears in which means is provided to multiply the power applied to the handles in moving the blades, or some other mechanism is provided to move the blades other than the handles rigidly attached to the blades.
- (1) Note. Compare this class, subclasses 187+, and see the notes under subclass 272.1 for other cutting tools having blade moving means.
- 246 Push or pull type:**
This subclass is indented under subclass 245. Shears in which motion is imparted to the blade or blades by a mere push or pull of the blades against the work, usually by a linkage system.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
314, and the notes thereto, for other push or pull cutting tools.
- 247 Rotary power source:**
This subclass is indented under subclass 245. Shears in which the power for moving the blades is derived from a rotary source.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
46, for traction driven devices.
228, for motor driven shears of this type.
401, for motor driven cutting tools.
- 248 Offset blade and handle:**
This subclass is indented under subclass 245. Shears in which the plane of the blades is offset from that of the handle.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
235, 257, and 318.
- 249 One movable blade:**
This subclass is indented under subclass 245. Shears in which only one blade is moved in the cutting operation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
188+ and 238.
- 250 Pivoted handle:**
This subclass is indented under subclass 249. Shears in which movement is imparted to the blade by one handle being pivoted relative to the other.

- (1) Note. Compare this class, subclasses 191+, 211, and 252.
- 251 Lever and connecting link:**
This subclass is indented under subclass 250. Shears in which a link connects the pivoted handle to the movable blade.
- (1) Note. Compare this class, subclasses 184, 190, and 242.
- 252 Pivoted handles:**
This subclass is indented under subclass 245. Shears in which movement is imparted to the blades by pivoted handles.
- (1) Note. Compare this class, subclasses 191+, 211+, and 250+.
- 253 End pivot:**
This subclass is indented under subclass 244. Shears in which the blades are pivoted together at the end of the blade.
- 254 Intermediate pivot:**
This subclass is indented under subclass 244. Shears in which the blade and handles are rigid and the blades pivoted together intermediate the handles and blades.
- (1) Note. Compare this class, subclass 239.
- (2) Note. For joints for this type of shear, see this class, subclasses 266+.
- 255 Foldable:**
This subclass is indented under subclass 254. Shears in which the implement may be folded into a more compact form or a form convenient for carrying.
- (1) Note. Some of the shears fold into a position in which each blade is alongside one handle.
- (2) Note. Compare this class, subclasses 151+ and 330.
- 256 Right or left hand:**
This subclass is indented under subclass 254. Shears in which structure is claimed making them specially adaptable to be used in either hand.
- (1) Note. Shears having two sets of handles and/or blades, or having the handles reversible and both edges of the blades sharpened for the purpose of the above adaptation, are here.
- (2) Note. Compare this class, subclasses 226+.
- 257 Offset blade and handle:**
This subclass is indented under subclass 254. Shears in which the plane of the blades is offset at an angle from that of the handle.
- (1) Note. This subclass is to be distinguished from subclass 259 of this class where the pivot is offset from the cutting line of the blades.
- (2) Note. Compare this class, subclasses 235, 248, and 318.
- 258 Blade and slot:**
This subclass is indented under subclass 254. Shears in which one blade has a slot into which the other blade moves during the cutting operation. These shears usually cut out a narrow strip of the material.
- (1) Note. Where one blade enters a slot in the other blade and wedges the material against the side of the slot for the purpose of gripping it, see this class, subclasses 134+.
- (2) Note. Where the slotted member merely constitutes a sheath for the cutting blade, see this class, subclass 155.
- 259 Offset pivot:**
This subclass is indented under subclass 254. Shears in which the blades are pivoted at a point offset from the median line of the blades. This is usually for the purpose of giving the shears a draw cut.
- (1) Note. Where the blades have a compound movement for the same purpose, see this class, subclasses 181, 204 et seq., and 237+.

- 260 Detachable blade and handle:**
This subclass is indented under subclass 254. Shears in which the blade end is detachable from the handle at the pivot or on either side thereof.
- (1) Note. Where the cutting edge is detachable and is substantially coextensive with the blade as distinguished from where the blade end is detachable, see this class, subclass 349.
- (2) Note. Compare this class, subclasses 157 and 236.
- 261 Spring opened or closed:**
This subclass is indented under subclass 254. Shears in which a spring is provided to either open or close the blades.
- (1) Note. Compare this class, subclasses 212+.
- 262 With latch:**
This subclass is indented under subclass 261. Shears in which a latch is provided to hold the blades in closed position.
- 263 Rotary blade:**
This subclass is indented under subclass 173. Implements in which at least one of the cooperating blades is rotary.
- (1) Note. Tailors' cloth cutting machines are here, as well as in subclasses 273+.
- (2) Note. The patents in this group are to be distinguished from the shear subclasses, since here the blade edges do not move past each other in the cutting operation, although some are called shears.
- (3) Note. Many of the patents here are base supported and in that respect are like those in subclasses 273+, and search for the base feature should be continued there.
- (4) Note. For rotary blades, per se, see this class, subclass 347, and see the notes thereunder for other rotary blade cutting tools.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
90.1+,
- 264 With motor:**
This subclass is indented under subclass 263. Implements in which the rotary blade is motor driven.
- (1) Note. See this class, subclass 4, and the notes thereunder, for other motor driven cutting tools.
- 265 Two rotary blades:**
This subclass is indented under subclass 263. Implements in which both of the cooperating blades are rotary.
- 266 Joints and blade-tension means:**
Inventions in the joint between two cooperating blade cutting tools, many of which have means for applying the proper pressure between the two blades.
- (1) Note. Compare this class, subclasses 207, 213, 214, and 221+.
- 267 With friction-reducing feature:**
This subclass is indented under subclass 266. Joints in which the joint is provided with means to reduce the friction between the blades including lubrication features.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
222 and 224.
- 268 Spring tension:**
This subclass is indented under subclass 266. Joints in which the proper pressure is applied to the blades by a spring.
- 269 Threadless pin type:**
This subclass is indented under subclass 268. Joints in which the blades are connected by a threadless pin.
- SEE OR SEARCH CLASS:
411, Expanded, Threaded, Driven, Headed, Tool-Deformed, or Locked-Threaded Fastener, subclasses 337+ for threadless bolts provided as securing means;

and subclasses 500+ for threadless bolts, per se.

270 Nut lock type:

This subclass is indented under subclass 266. Joints in which means is provided for locking the threaded part against becoming loosened.

SEE OR SEARCH CLASS:

411, Expanded, Threaded, Driven, Headed, Tool-Deformed, or Locked-Threaded Fastener, subclasses 81+ for a threaded fastener (i.e., a bolt or nut) and means for restricting the rotation thereof relative to a coacting substructure.

271 Stops and bumpers:

Devices for limiting the movement of two cooperating blades or their handles, either in the opening or closing movement.

272.1 With blade moving means:

This subclass is indented under subclass 165. Cutting tool including means to effect movement of the cutting edge during hand manipulation.

- (1) Note. Means for moving the blade of a cutting tool to a desired position of adjustment is not included herein because the blade moving means is not intended to function during operation of the cutting tool.

SEE OR SEARCH THIS CLASS, SUBCLASS:

2+, for a can opener having a driven cutting blade.
 42+, for a razor having a driven cutting blade.
 92+, for a pipe or rod cutter having a driven cutting blade.
 110, for a cigar tip cutter having a driven cutting blade.
 166+, for a saw having a driven cutting blade.
 182+, for nippers having a cutting blade driven to move to-and-fro.
 187+, for nippers having a cutting blade driven to move about a pivot.
 205+, for shears having multiple shearing positions and a driven rotary cutting blade.

209+, for shears having multiple shearing positions and a driven reciprocating or oscillating cutting blade.

215+, for shears having multiple shearing positions and having a rotary power source to drive a cutting blade.

227, for shears of the multiplex type having blade moving means.

235, for spring joint shears having offset handles and a driven blade.

237+, for shears having compound blade movement, wherein the blade is driven.

240, for shears having a driven rotary blade.

241+, for shears having a driven reciprocating blade.

245+, for shears having a driven pivoted blade.

263, for shears having a driven rotary blade.

273 Base-supported:

This subclass is indented under subclass 272.1. Implements in which the implement is supported on a base so as to be moved about over the work or over a work table upon which the work rests. The implement may be provided with means to raise the material into position to be cut by the blade.

- (1) Note. Tailors' cloth cutting machines are here, as well as in subclasses 263+.

(2) Note. Many patents in this group are motor driven; see this class, subclass 401, and the notes thereto.

(3) Note. Many patents in subclass 263 in this class have base supports similar to those in this group. Search for the base should be continued there.

274 Band knife:

This subclass is indented under subclass 273. Implements in which the blade is in the form of an endless band or in which a plurality of blades are secured to an endless band. The endless band moves continuously over wheels or pulleys in the cutting operation.

SEE OR SEARCH CLASS:

56, Harvesters, subclasses 244+.

- 83, Cutting, subclasses 788+ for machines using endless flexible band knives, and subclass 661 for the cutter element, per se.
- 299, Mining or In Situ Disintegration of Hard Material, subclasses 82.1+ for a chain type hard material cutter head.

275 With presser foot:

This subclass is indented under subclass 273. Implements in which a presser foot is provided to hold the material in proper position during the cutting operation.

275.4 With support or attaching means:

This subclass is indented under subclass 272.1. Cutting tool combined with means to hold the assembly thereof against the force of gravity or against the reaction of the material being cut.

- (1) Note. A twine cutter is included herein, even if fixed to an immobile twine support.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 2+, for a base mounted or otherwise supported can opener.
- 109+, especially subclass 110, for a base mounted or otherwise supported cigar tip cutter.
- 198, for multiple shearing position shears that are body supported.
- 231+, for supported shears.
- 263+, for supported cutter having plural cooperating blades, one of which is rotary.
- 273+, for a base supported cutting tool with blade moving means.
- 290+, for a cutting tool with a guard or material guide and a support.
- 296.1, for a cutting tool with support or attaching means.
- 323, for a fork with a hand guard and/or a support.
- 327, for a spoon with a support.

SEE OR SEARCH CLASS:

- 69, Leather Manufacturers, subclasses 11+ for a machine for using a fixed knife for skiving or splitting leather.
- 83, Cutting, appropriate subclasses for a base supported cutting machine, generally.

- 144, Woodworking, subclasses 120+ for a planer using a stationary cutter; and subclasses 155+ for a shaver using a stationary cutter.

- 225, Severing by Tearing or Breaking, appropriate subclasses for subdividing material by tensile or bending force, generally.

276 Rotary blade:

This subclass is indented under subclass 272.1. Implements in which the blade is given a rotary movement to perform the cutting operation.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 347, for rotary blades, per se, and see the notes thereunder for other rotary blade cutting tools.

277 Impact:

This subclass is indented under subclass 272.1. Implements in which the blade moving means is in the form of mechanism to give the tool an impact blow to perform the cutting operation.

- (1) Note. Compare cold chisels in this class, subclass 168 and see subclass 164.6 for ice picks and chippers provided with impact moving means.

SEE OR SEARCH CLASS:

- 81, Tools, subclass 463 and see the notes thereto for other impact tools.
- 173, Tool Driving or Impacting, subclasses 90+ for an impacting device adapted to drive a cutting tool.

277.4 Including a motor:

This subclass is indented under subclass 272.1. Apparatus caused to function by a prime mover utilizing stored energy or utilizing energy from an external supply.

- (1) Note. Included herein is an electric motor, a hydraulic motor, or a spring motor.

278 With material receiving opening:

This subclass is indented under subclass 165. Implements which are provided with an opening adjacent the cutting edge through which the cut material may pass during the cutting operation in the normal operation of the implements.

- (1) Note. Tools having a guard which in conjunction with the blade forms the material receiving opening are here included.
- (2) Note. So-called gage paring knives, coring knives, and tire and other groovers, are here, where the material passes through an opening.
- (3) Note. Compare this class, subclasses 27, 80, and 83.

279.2 Plural blade or cutting edge:

This subclass is indented under subclass 278. Cutting tool (a) having more than one cutting blade, at least one of which includes an opening adjacent the cutting edge through which the cut material may pass during the cutting operation; or (b) having a cutting blade with more than one distinct sharp cutting edge, at least one of which edges includes an opening adjacent thereto through which the cut material may pass during operation.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 253, for a cutting tool, generally having more than one cutting edge on its blade.
- 287, for a cutting tool having plural blades or cutting edges with a guard and/or a guide.
- 299+, for a cutting tool, generally, having more than one cutting blade.

279.4 Swinging-stroke vegetation cutter:

This subclass is indented under subclass 279.2. Apparatus intended to be manually supported and moved to-and-fro in the manner of a pendulum to cut living plant material on the forward stroke and again on the return stroke.

279.6 Border of opening limits cutting depth, e.g., peeler:

This subclass is indented under subclass 278. Cutting tool having structure defining the opening through which the cut material may pass, intended to engage the material being cut to thereby limit the degree of cutting penetration.

280 Push or pull type:

This subclass is indented under subclass 278. Implements in which the cutting edge is so related to the handle that the tool may be operated by a direct push or pull on the handle or handles in its normal operation.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 314+, and the notes thereto, for other push or pull cutting tools.

SEE OR SEARCH CLASS:

- 299, Mining or In Situ Disintegration of Hard Material, subclass 34.01 and see the search notes therein for a machine for disintegrating hard material in situ having a planer type cutter.

281 Spoke shave type:

This subclass is indented under subclass 280. Implements in which the tool has a handle at each end so that the implement may be drawn toward the operator in its normal operation.

- (1) Note. In addition to spoke shaves, cutters disclosed for various purposes, as shoe, heel and sole edge trimmers, are here when of this type.
- (2) Note. See this class, subclass 313, for draw knives.

282 With blade guide:

This subclass is indented under subclass 278. Implements which have in addition to the material receiving opening a guide for guiding the tool relative to the work.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 288 and 289+.

283 Adjustable:

This subclass is indented under subclass 278. Implements in which the opening is adjustable to vary the thickness of the material to be cut.

- (1) Note. See appropriate subclasses under the razor group.

284 Detachable guard:

This subclass is indented under subclass 283. Implements in which the guard which forms, in conjunction with the blade, the material opening is detachable from the blade.

SEE OR SEARCH THIS CLASS, SUBCLASS:
55 and 285.

285 Detachable guard:

This subclass is indented under subclass 278. Implements in which the guard which forms, in conjunction with the blade, the material opening is detachable from the blade.

SEE OR SEARCH THIS CLASS, SUBCLASS:
55 and 284.

286 With guard and/or guide:

This subclass is indented under subclass 165. Implements which have either (1) a guard for the cutting edge so related to such edge as to prevent cutting other than in a desired manner, or (2) a guide to cause the implement to move in a predetermined relation to the material being cut or a work table or other support for the material or to cause the material to move in a predetermined relation to the implement, or (3) a guard to protect the hand from injury by the blade or material. The same device may function as both a guard and guide.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 27, for guards and/or guides for manicuring cutters.
- 30+, for guards and/or guides for hair planers.
- 32+, (especially subclass 51) for guards and/or guides for razors.
- 90.1+, for a similar device for cutting a strand-encircling sheath.
- 164.7, for guards and/or guides for ice picks and chippers.
- 179, for guards and/or guides for nippers.
- 196+, (especially subclasses 200+) for guards and/or guides for multiple shearing position type shears.
- 233+, for guards and/or guides for shears.
- 263+, for guards and/or guides for rotary blades.

273+, for guards and/or guides for base supported cutting implements.

278+, for cutters having a material receiving opening, which opening may be formed by a guide and/or guard in conjunction with the blade or cutting edge.

308.2, for an ax, hatchet, or adze which is foldable to cover the blade edge.

287 Plural blade or cutting edge:

This subclass is indented under subclass 286. Cutting tools in which the tool has more than one cutting blade or more than one cutting edge on a single blade, at least one such blade or edge having a guard or guide.

SEE OR SEARCH THIS CLASS, SUBCLASS:

279.2, 299+, and 353+, for other plural blade cutting tools or blades having plural cutting edges.

288 Diverse kinds:

This subclass is indented under subclass 286. Implements in which the tool has a plurality of guards or guides of different nature.

SEE OR SEARCH THIS CLASS, SUBCLASS:

282,

289 Blade or material guide:

This subclass is indented under subclass 286. Implements which have a guide to cause the tool to move in a predetermined relation to the material being cut by mere engagement with the material or a work supported member or a work table or other support for the material or to cause the material to move in a predetermined relation to the implement. The same device may function as both a guard and guide.

- (1) Note. A work supported member serving as a tool guide is, per se, classified in Class 269, Work Holders, subclasses 1+. The combination of the work supported tool guide and the tool guided therein is originally classified in this and indented subclasses.

SEE OR SEARCH THIS CLASS, SUBCLASS:

2, 263+, 273+, and 282.

SEE OR SEARCH CLASS:

269, Work Holders, see (1) Note.

290 With support:

This subclass is indented under subclass 289. Implements which also have means for supporting the cutter either when in use or not in use.

- (1) Note. See this class, subclasses 296.1+, and the notes thereto.

291 Hand- or finger-supported:

This subclass is indented under subclass 290. Implements in which means is provided other than a mere handle for attaching the tool to the hand or finger of the operator.

SEE OR SEARCH THIS CLASS, SUBCLASS:

232 and 298.

292 Traveling roller blade:

This subclass is indented under subclass 289. Implements in which the blade is in the form of a traveling roller.

- (1) Note. See this class, subclasses 306+ and 319 for other traveling roller blade cutters.

293 Adjustable:

This subclass is indented under subclass 289. Implements in which the guide is adjustable relative to the tool.

294 Push or pull type:

This subclass is indented under subclass 289. Implements in which the blade is so related to the handle that the tool may be operated by a direct push or pull on the handle in its normal operation.

SEE OR SEARCH THIS CLASS, SUBCLASS:

280 and 314+.

295 Hand guard:

This subclass is indented under subclass 286. Implements which are provided with a guard to protect the hand of the user from injury by the blade during cutting or from material being cut.

- (1) Note. Mere handles of such shape as to be more readily grasped by the hand will be found in this class, subclass 340, and indented subclasses.

- (2) Note. For hand guards for culinary and table forks, see this class, subclass 323.

SEE OR SEARCH CLASS:

294, Handling: Hand and Hoist-Line Implements, subclass 131 for similar guards of more general application.

296.1 With support or attaching means:

This subclass is indented under subclass 165. Cutting tool combined with means to hold the assembly thereof against the force of gravity or against the reaction of the material being cut.

- (1) Note. A twine cutter is included herein, even if fixed to an immobile twine support.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 2+, for a base mounted or otherwise supported can opener.
 109+, especially subclass 110 for a base mounted or otherwise supported cigar tip cutter.
 198, for multiple shearing position shears that are body supported.
 231+, for supported shears.
 263+, for supported cutter having plural cooperating blades, one of which is rotary.
 273+, for a base supported cutting tool with blade moving means.
 275, for a cutting tool having blade moving means, with support or attaching means.
 290+, for a cutting tool with a guard or material guide and a support.
 323, for a fork with a hand guard and/or a support.
 327, for a spoon with a support.

SEE OR SEARCH CLASS:

69, Leather Manufacturers, subclasses 11+ for a machine for using a fixed knife for skiving or splitting leather.

- 83, Cutting, appropriate subclasses for a base supported cutting machine, generally.
- 144, Woodworking, subclasses 120+ for a planer using a stationary cutter; and subclasses 155+ for a shaver using a stationary cutter.
- 225, Severing by Tearing or Breaking, appropriate subclasses for subdividing material by tensile or bending force, generally.
- 297 Leg- or foot-supported:**
This subclass is indented under subclass 296.1. Implements in which means is provided for securing the tool to the leg or foot of the operator.
- 298 Hand- or finger-supported:**
This subclass is indented under subclass 296.1. Implements in which means is provided other than a mere handle for securing the tool to the hand or finger of the operator.
- (1) Note. Compare this class, subclasses 198, 232 and 291.
- (2) Note. Compare Class 84, Music, subclass 322.
- SEE OR SEARCH CLASS:
7, Compound Tools, subclass 121 for combined cutters and thimbles.
- 298.4 Nonuse support:**
This subclass is indented under subclass 296.1. Apparatus including support structure intended to function when the apparatus is out of use.
- (1) Note. A holder, per se, for use with a cutting tool is included in this subclass.
- SEE OR SEARCH CLASS:
206, Special Receptacle or Package, subclass 553 for a receptacle or package for holding an eating or kitchen type tool.
- 211, Supports: Racks, subclass 70.7 for a support for storage of plural similar cutlery items, generally.
- 248, Supports, subclasses 37.3+ for a cutlery support for, with, or on structure (e.g., a pan, plate, or chopping block) associated with the use of the cutlery,
- which support is (a) carried by the cutler when performing a cutlery function or (b) intended to be placed adjacent the work area of the cutlery to receive the cutlery only for relatively short intervals; e.g., during cooking.
- 299 Plural blade:**
This subclass is indented under subclass 165. Implements which have a plurality of cutting blades for either simultaneous or alternative cutting of material.
- (1) Note. Does not include plural cooperating blades, for which see this class, subclasses 173+.
- (2) Note. For other plural blade cutters in this class, see the following subclasses: 50, 113.1+, 114, 145, 146, 152, 164.8, 172, 176, 197, 226+, 279.2, 287, and 412.
- 300 Sweep cutter:**
This subclass is indented under subclass 299. Implements in which the cutters travel about a fixed point usually in the arc of a circle.
- (1) Note. Includes cutters for cutting out washers even though adapted to be operated by a hand brace.
- (2) Note. For other sweep cutters, see this class, subclasses 310+ and the notes thereto.
- 301 Annular blade:**
This subclass is indented under subclass 299. Implements in which at least one of the blades is an annular blade.
- (1) Note. Includes sheet material and dough cutters.
- (2) Note. For other annular blade cutters, see this class, subclass 316, and the notes thereto.

- SEE OR SEARCH CLASS:
425, Plastic Article or Earthenware Shaping or Treating: Apparatus, subclass 281 for an ice-cream scoop type shaping means having a serrated or cutting edge.
- 302 With radiating or crossed blades:**
This subclass is indented under subclass 301. Implements in which at least one of the blades is an annular cutter and others are radiating or crossed blades.
- (1) Note. Combined apple corers and segmenters are here.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
303, and compare subclass 114.
- 303 Radiating or crossed blades:**
This subclass is indented under subclass 299. Implements in which the plural blades are crossed or radiate from the axis of the tool.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
302,
- 304 Parallel blades:**
This subclass is indented under subclass 299. Implements in which the plural blades are parallel.
- SEE OR SEARCH CLASS:
83, Cutting, particularly subclasses 651+ for a cutter of that class (83) type that may have plural parallel blades.
- 305 Push or stamp type:**
This subclass is indented under subclass 304. Implements in which the cutting edges are so related to the handle that the tool may be operated by a direct push on the handle or by a stamping action.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
315+, and the notes thereto, for other push or stamp cutting tools.
- 306 Traveling roller cutter:**
This subclass is indented under subclass 299. Implements in which the blades are on or in the form of a traveling roller.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
292 and 319.
- 307 Disc blade:**
This subclass is indented under subclass 306. Implements in which the blades are in the form of rotary discs.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
347, for rotary blades, per se, and see the notes thereunder for other rotary blade cutters.
- 308 Cleaver type:**
This subclass is indented under subclass 165. Implements in which the tool is of the form generally known as a butcher's cleaver, i.e., having a comparatively broad, heavy and substantially rectangular blade extending from the handle along its length.
- (1) Note. Mere blades will be found in this class, subclasses 346+.
- (2) Note. Compare this class, subclass 318.
- (3) Note. Power operated butchers' cleavers which are disclosed as being of general use are classified in this class, subclass 272.1, and those peculiar to or having sole disclosure to the butchering art are classified in Class 452, Butchering, subclasses 149+.
- 308.1 Hatchet, ax or adze:**
This subclass is indented under subclass 165. Device including a weighted head having a cutting edge thereon, the head being attached to one end of an armlike handle member, the other end of the armlike handle member being adapted to be held in the hand of the user, the cutting action occurring on impact of the head of the work.

308.2 Foldable to cover bit:

This subclass is indented under subclass 308.1. Device wherein (a) the head may be swung into a receptacle in or on the lever armlike handle, or (b) a portion of the lever armlike handle may be swung into a position covering the cutting edge.

308.3 Detachable bit:

This subclass is indented under subclass 308.1. Device wherein the cutting edge is designed to easily separate from the remainder of the head for purposes of replacement, sharpening, or the like.

309 Sickle or scythe type:

This subclass is indented under subclass 165. Cutting tools having a substantially crescent shaped blade lying in or out of the plane of the handle but otherwise extending at a substantial angle thereto. They are usually used for cutting grass, or grain, including corn.

- (1) Note. Mere blades will be found in this class, subclasses 346+, especially subclass 348.
- (2) Note. Compare this class, subclass 318.
- (3) Note. Where such cutters have cradle fingers for catching grain, see Class 56, Harvesters, subclasses 324+.

SEE OR SEARCH CLASS:

403, Joints and Connections, appropriate subclasses for a connection between a handle and a blade or between a handle nib and a snatch wherein no structure of the handle blade, nib or snatch is involved other than that which cooperates to effect the connection.

310 Sweep cutter:

This subclass is indented under subclass 165. Implements in which the cutter is moved about a fixed point in a sweeping action even though intended for use with a hand brace.

- (1) Note. For other sweep cutters in this class, see the following subclasses: 93+, 123.5+, 300, 433, and 435.

SEE OR SEARCH CLASS:

33, Geometrical Instruments, subclasses 27.01+ for a sweep cutter combined with measuring structure.

144, Woodworking, subclass 24 for a woodworking machine including a sweep cutter having motions during operations other than pure rotary plus axial.

408, Cutting by Use of Rotating Axially Moving Tool, for a sweep cutter wherein the tool is restricted to pure rotary motion combined with simultaneous axial motion.

312 Plural handle or grip:

This subclass is indented under subclass 165. Implements which are provided with a plurality of handles.

313 Draw knives:

This subclass is indented under subclass 312. Implements which are provided with a handle at each end of the tool and so related to the blade that the implement can be drawn toward the operator to perform the cutting operation in its normal use.

SEE OR SEARCH THIS CLASS, SUBCLASS:

281, for spoke shaves.

314 Push and/or pull type:

This subclass is indented under subclass 165. Implements in which the blade or cutting edge thereof is so related to the handle that the tool may be moved by a direct push or pull, or both, on the handle to perform the cutting operation in its normal use.

- (1) Note. For other push or pull implements in this class, see the following subclasses: 27, 51+, 90.1+, 113.1+, 114, 115+, 119, 121, 130, 168, 169, 171, 246, 272.1, 277, 280+, 294, 301+, 303, 305, 313, 411, and 443.
- (2) Note. Mere blades will be found in this class, subclasses 346+ and 353.

315 Push or stamp type:

This subclass is indented under subclass 314. Implements in which the blade or cutting edge is so related to the handle that the tool may be moved by a direct push on the handle to perform the cutting operation in its normal use.

- (1) Note. For other push tools in this class, see the following subclasses: 113.1+, 114, 115+, 119, 121, 130, 168, 169, 246, 272, 277, 280+, 294, 301+, 303, 305, 414, 443, and 445.

316 Annular blade:

This subclass is indented under subclass 315. Implements in which the blade is annular.

SEE OR SEARCH THIS CLASS, SUBCLASS:

113.1+, 130, 278+, 301+, and 443, for other annular blade cutters.

SEE OR SEARCH CLASS:

294, Handling: Hand and Hoist-Line Implements, subclass 50.7 for annular fork or shovel implements.

317 Pull type:

This subclass is indented under subclass 314. Implements in which the blade or cutting edge is so related to the handle that the tool may be moved by a direct pull on the handle to perform the cutting operation in its normal use.

SEE OR SEARCH THIS CLASS, SUBCLASS:

2, 27, 51+, 90.1+, 121, 246, 280+, 294, and 313, for other pull cutting tools.

318 Swing stroke type:

This subclass is indented under subclass 165. Implements in which the plane of the blade lies at such an angle to the plane of the handle that the operator may stand in an upright position and swing the tool to cut material substantially even with the ground in its normal use.

- (1) Note. Compare this class, subclasses 235, 248, 257, 308, and 309.

- (2) Note. Mere blades are in this class, subclasses 346+.

- (3) Note. For axes, see this class, subclasses 308.1+. Hatchets and hammers combined are in Class 7, Compound Tools, subclass 145.

319 Traveling roller blade:

This subclass is indented under subclass 165. Implements in which the blade is in the form of a traveling roller.

- (1) Note. For other traveling roller cutters in this class, see the following subclasses: 101, 102, 128, 263+, 292, 300, 306+, 310, and 422+.

SEE OR SEARCH THIS CLASS, SUBCLASS:

347, for rotary blades, per se, and see the notes thereunder for other rotary blade cutting tools.

SEE OR SEARCH CLASS:

492, Roll or Roller, for a roll, per se, not elsewhere provided for, and see the notes thereunder.

320 Adjustable blade:

This subclass is indented under subclass 165. Implements in which the blade is adjustable relative to the handle.

SEE OR SEARCH THIS CLASS, SUBCLASS:

92+, 177, 199, 438, and 527+, for other adjustable blade cutters.

151, where the blade is so related to the handle as to lie wholly within or wholly without the handle in its normal operation.

SEE OR SEARCH CLASS:

403, Joints and Connections, subclasses 52+ for adjustable connections in general.

321 Pivoted:

This subclass is indented under subclass 320. Implements in which the blade is pivotally connected relative to the handle.

SEE OR SEARCH THIS CLASS, SUBCLASS:

155, where the blade folds into the handle.

177 and 199, for other pivoted blade cutters.
527, for a handle pivotally connected to the blade.

SEE OR SEARCH CLASS:

403, Joints and Connections, subclass 52 for pivotal connections in general.

322 FORKS:

Culinary and table forks having a plurality of tines designed for handling food.

- (1) Note. For inventions not limited to forks, spoons or knives, but coming within the class definition, see this class, subclass 1.
- (2) Note. Where the invention is merely in the material from which the fork is made, see this class, subclass 345.
- (3) Note. For these forks combined with material holders or ejectors or with other cutlery implements, see this class, subclasses 129, 137, 147, 148, and 150.
- (4) Note. Search this class, subclasses 340+, for mere handles and their connections.
- (5) Note. For hand or pitch forks combined with cutters, see Class 7, Compound Tools, subclass 115.
- (6) Note. For hand or pitch forks designed for handling material in general, see Class 294, Handling: Hand and Hoist-Line Implements, subclass 55.5.
- (7) Note. For similar implements having a single tine, see Class 294, Handling: Hand and Hoist-Line Implements, subclass 61.
- (8) Note. For designs for forks, see Class D7, EQUIPMENT FOR PREPARING OR SERVING FOOD OR DRINK Not Elsewhere Specified, subclasses 645+.
- (9) Note. See Class 56, Harvesters, subclass 374 for tedder forks.
- (10) Note. For hand-manipulable fork-like devices whose tines are intended to pen-

etrate and then break apart light textures, fluffy foods such as cakes and breads, see Class 225, Severing by Tearing or Breaking, subclasses 93+.

SEE OR SEARCH CLASS:

99, Foods and Beverages: Apparatus, subclass 419 for supports for the heat treatment of food in the form of forks combined with means to rotate or otherwise manipulate the tines with respect to the handle.

323 With hand guard and/or support:

This subclass is indented under subclass 322. Forks which are provided with a guard to protect the hand of the operator, with a support for the fork while in inoperative position, or a combination of the two.

SEE OR SEARCH THIS CLASS, SUBCLASS:

296.1, and see the notes thereunder.

324 SPOONS:

Culinary or table spoons having a bowl shaped portion designed for the purpose of handling food.

- (1) Note. For inventions which may be applied to such spoons but which are applicable to other cutlery implements, see this class, subclass 1.
- (2) Note. For spoons with material strippers, see this class, subclass 128, and the notes thereunder.
- (3) Note. For spoons with material conducting handles, see this class, subclass 141.
- (4) Note. For spoons combined with other cutlery implements, see this class, subclasses 147, 149, and 150.
- (5) Note. For inventions merely in the material from which a spoon is made, see this class, subclass 345.
- (6) Note. For mere handles and their connection to the bowl, see this class, subclasses 340+.

- (7) Note. For scoops, see Class 294, Handling: Hand and Hoist-Line Implements, subclass 55.
- (8) Note. For measuring spoons, see Class 73, Measuring and Testing, subclasses 426+.
- (9) Note. For designs for spoons, see Class D7, EQUIPMENT FOR PREPARING OR SERVING FOOD OR DRINK Not Elsewhere Specified, subclasses 645+.
- (10) Note. For hand shovels for handling material in general, see Class 294, Handling: Hand and Hoist-Line Implements, subclasses 49+.

SEE OR SEARCH CLASS:

425, Plastic Article or Earthenware Shaping or Treating: Apparatus, subclasses 276+ for an ice-cream scoop or plugger having a shaping cavity.

325 Perforated:

This subclass is indented under subclass 324. Spoons in which the bowl is perforated, usually for the purpose of straining.

SEE OR SEARCH CLASS:

210, Liquid Purification or Separation, subclasses 470+ for handled filters, per se.

326 With cover and/or guard:

This subclass is indented under subclass 324. Spoons in which the bowl has a cover or a guard to prevent the material from spilling or to prevent contact with some outside body.

- (1) Note. Medicine and mustache spoons are here.

327 With support:

This subclass is indented under subclass 324. Spoons which are provided with a support to hold them level while full or to support them in inoperative position.

- (1) Note. Compare this class, subclass 296.1, and see the notes thereunder.

328 Reinforced:

This subclass is indented under subclass 324. Spoons in which the blade and handle are reinforced, such as by reinforcing ribs, etc.

- (1) Note. Mere reinforced handles will be found in this class, subclass 340.

329 HOLDERS FOR DETACHABLE BLADES:

Devices for holding detachable cutting blades.

- (1) Note. The holder may be claimed, per se, or in combination with the blade.
- (2) Note. The patents in this group are for holding a blade without a guard for shaving purposes, for sharpening purposes, and for use as a knife or scraper.
- (3) Note. Connections between a blade having a tang and its handle will be found in this class, subclass 341 et seq., except when there noted to be elsewhere.
- (4) Note. For detachable blade razors having guarded cutting edges, see this class, subclasses 51+.
- (5) Note. Compare also this class, subclasses 2, 27, and 30+.
- (6) Note. For sheath knives having detachable blades, see this class, subclasses 156+.
- (8) Note. Where a blade has a tang which enters a socket in the handle with means to hold the tang in the socket, search should be made in Class 279, Chucks or Sockets, subclass 9.1, or the appropriate indented subclass. The mere naming of the blade as a knife blade in the claims will not operate to keep the patent out of Class 279.

SEE OR SEARCH CLASS:

407, Cutters, for Shaping, subclasses 66+ for a cutter adapted to be clamped to a tool post.

451, Abrading, especially subclasses 169, 316, 318, 322, 364+, and 370+ for a blade holder specially designed to

hold a blade for stropping or honing purpose. The line is set forth under "Note", (2), SEARCH CLASS, 451, of the definition of Class 30.

330 Pivoted part:

This subclass is indented under subclass 329. Blade holders in which the holder is provided with at least one pivoted part which can be operated to release the blade from the holder.

(1) Note. Compare this class, subclass 153.

331 End pivot:

This subclass is indented under subclass 330. Blade holders in which the pivot for the parts is at either the blade end or handle end of the holder.

332 Knockdown holders:

This subclass is indented under subclass 329. Blade holders in which the parts of the holder are readily separable to release the blade.

(1) Note. Compare this class, subclasses 47, 68+, and 156.

333 One movable side:

This subclass is indented under subclass 332. Blade holders in which one side of the blade engaging part of the holder is removable from the remainder of the holder.

(1) Note. Compare Class 279, Chucks or Sockets, subclass 44.

334 U-strap holder:

This subclass is indented under subclass 329. Blade holders in which a U-strap usually of metal is passed end-wise around the blade and has means to hold the blade in the U of the strap.

335 Sliding-blade assembly:

This subclass is indented under subclass 329. Blade holders which are so constructed that the blade and holder may be assembled by a straight sliding movement of the blade relative to the holder.

(1) Note. Compare this class, subclasses 62+.

336 Spring jaw type:

This subclass is indented under subclass 335. Blade holders in which the holder is provided with spring jaws to grip the blade.

(1) Note. Compare this class, subclass 338.

337 Interlocked blade and holder:

Blade holders in which a lug, depression or the like cooperates with an aperture, depression or lug on the blade to hold the blade in the holder.

(1) Note. Many blade holders of the special types provided for above have interlocked blades and holders and search should be made there for interlocked blades and holders of the particular type there provided for, and compare this class, subclasses 68+.

338 Spring jaw type:

This subclass is indented under subclass 337. Blade holders in which the holder is provided with spring jaws to grip the blade.

(1) Note. Compare this class, subclass 336.

339 Apertured blade:

This subclass is indented under subclass 337. Blade holders in which the blade has an aperture or apertures to cooperate with lugs on the holder to hold the blade to the holder.

340 HANDLES AND BLADE CONNECTIONS:

Handles specific to cutlery implements and inventions in the means for attaching the blades thereto, not otherwise provided for.

(1) Note. See this class, subclasses 40 and 125 for cutlery handles having receptacles in the handles, 151+ for sheathed cutlery handles, and 526+ for razor handles, especially subclasses 535+ for razor handles with receptacles.

(2) Note. Holders for detachable blades and handles therefor will be found in this class, subclasses 329+, where the handle is not attached directly to the blade tang.

(3) Note. For tool and implement handles generally, attention is called to the fol-

lowing classes listed under search class, below.

SEE OR SEARCH CLASS:

- 7, Compound Tools, especially subclasses 118 and 167. (See (3) Note, above.)
- 15, Brushing, Scrubbing, and General Cleaning, subclasses 436+ for implements having elements, couplings or retaining means and subclasses 143.1+ and 147.1+ for handles for cleaning implements. (See (3) Note, above.)
- 16, Miscellaneous Hardware (e.g., Bushing, Carpet Fastener, Caster, Door Closer, Panel Hanger, Attachable or Adjunct Handle, Hinge, Window Sash Balance, etc.), subclasses 110.1+. (See (3) Note, above.)
- 29, Metal Working, subclass 80.
- 38, Textiles: Ironing or Smoothing, subclasses 90+. (See (3) Note, above.)
- 42, Firearms, subclasses 71.01+. (See (3) Note, above.)
- 74, Machine Element or Mechanism, subclasses 519+ for levers, and 543+ for handles. (See (3) Note, above.)
- 76, Metal Tools and Implements, Making, subclasses 104.1+, especially subclass 106, for making hollow handles. (See (3) Note, above.)
- 81, Tools, subclasses 427.5 and 177.1. (See (3) Note, above.)
- 101, Printing, particularly subclasses 405+. (See (3) Note, above.)
- 119, Animal Husbandry, subclass 94. (See (3) Note, above.)
- 144, Woodworking, subclass 11 for making of a wood handle. (See (3) Note, above.)
- 172, Earth Working, subclasses 329+ for earth working implements with handles. (See (3) Note, above.)
- 173, Tool Driving or Impacting, appropriate subclass for subject matter directed to driving or impacting a tool or the like, and including manipulating handle structure, and particularly subclasses 168+ for a manipulating handle having a passage for motive fluid, and subclass 170 for a manipulating handle having a drive control means operable by the engaging hand thereof. (See (3) Note, above.)
- 190, Trunks and Hand-Carried Luggage, subclasses 39 and 115+. (See (3) Note, above.)
- 206, Special Receptacle or Package, subclasses 139+ and 427+. (See (3) Note, above.)
- 220, Receptacles, subclasses 752+.
- 279, Chucks or Sockets, subclass 9.1, or appropriate indented subclass, for handles having a socket into which a blade tang is inserted with means for holding the tang therein, whether removably or permanently attached. The mere naming of a designated cutlery implement as such will not operate to keep the patent out of Class 279.
- 294, Handling: Hand and Hoist-Line Implements, particularly subclasses 57+; subclass 137 for a handle provided with means to attach the handle to an article to carry the article. (See (3) Note, above.)
- 300, Brush, Broom, and Mop Making, subclass 20. (See (3) Note, above.)
- 403, Joints and Connections, appropriate subclasses for a connection between a tool and a handle which does not involve any part of the tool or handle other than that which cooperates to effect the connection.
- 473, Games Using Tangible Projectile, subclasses 298+, 549+, and 562. (See (3) Note, above.)
- 341 Shear or nipper type:**
This subclass is indented under subclass 340. Handles in which the handle is specially designed for a plural cooperating blade implement of the shear or nipper type.
- 342 Blade connections:**
Inventions in the handles plus the connecting means for joining them to the blade tang.
- (1) Note. The line between this group and other places is set out in the notes under subclass 340 of this class.
- (2) Note. Compare this class, subclasses 236 and 260.

343 Cast-on handle:

This subclass is indented under subclass 342. Inventions in which the handle is cast or molded on to the blade tang.

SEE OR SEARCH CLASS:

- 164, Metal Founding, subclasses 98+ for processes of casting metal against a preform, and particularly subclass 111 for interlocks between the parts.
- 264, Plastic and Nonmetallic Article Shaping or Treating: Processes, appropriate subclasses 259+ which pertains to shaping material and uniting to a preformed self-sustaining body.
- 279, Chucks or Sockets, subclass 105.

344 Welded , riveted or bolted:

This subclass is indented under subclass 342. Inventions in which the handle is welded, riveted or bolted to the implement or its tang.

- (1) Note. Does not include separate side scales when bolted to the tang, for which see this class, subclass 342.

345 MATERIALS:

Inventions applicable to any of the cutlery implements falling within the definition of this class in which the invention resides in the material from which the implement is made.

- (1) Note. The metallurgical feature of mere blades is excepted and will be found in this class, subclass 350.
- (2) Note. If features are claimed limiting the tool to any of the particular types provided for above, the patent will be placed there and cross-referenced here, where necessary.

SEE OR SEARCH CLASS:

- 428, Stock Material or Miscellaneous Articles, subclasses 544+ for stock material; e.g., of indefinite length, which is all metal or has adjacent metal components.

346 BLADES:

Inventions in cutting blades, per se, for use with hand manipulated implements.

- (1) Note. If a cutter organization including blades with guards, etc., provided for above, is claimed, the patents will be placed there and cross-referenced to this group where necessary.

- (2) Note. For blades for multiple shearing position shears, see this class, subclass 225.

- (3) Note. Blades intended for use with any of the machine cutting classes will be found there in the appropriate subclasses; Class 83, Cutting, subclass 651; and subclass 835+ for saw blades and saw teeth, per se; Class 144, Woodworking, subclasses 218+; Class 407, Cutters, for Shaping.

SEE OR SEARCH CLASS:

- 407, Cutters, for Shaping, subclasses 29.1+ for files and rasps.
- 428, Stock Material or Miscellaneous Articles, subclasses 600+ for a metallic stock material having a variation in thickness; e.g., tapered edges, and subclass 932 for such material where a cutting feature is disclosed.

346.5 Razor blade:

This subclass is indented under subclass 346. Device specifically adapted to be used in a razor to shave off the beard or hair.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 353, for a blade having plural cutting edges which may be similar to a razor blade.

346.51 Cutting couple element:

This subclass is indented under subclass 346.5. Device comprising a cutter adapted to perform a cutting function by cooperation with another blade to either shear or nip off the beard.

- (1) Note. The term "shear" is used here to denote the cutting action of a cooperating pair of cutters, the edges of which approach, and continue to move past, each other. The term "nip" is used here to mean the cutting action of a pair of cooperating cutters, the edges of which move directly toward each other so that,

if the motion continues, the edges will abut.

all metal or has adjacent metal components.

346.52 Having indicia:

This subclass is indented under subclass 346.5. Device on which a recognizable, characteristic mark is present.

- (1) Note. Included in this subclass is a blade having a coating that changes color after being submerged in water. Also included in the concept of this subclass is a blade having plural cutting edges, each of which is numbered.
- (2) Note. Normal rules of the U. S. Patent Classification System have been followed in the placement of the patents into this subclass. Therefore, if no claim recites a blade having such indicia, the patent will be found in the subsequent subclasses according to characteristics that are claimed. If none of the characteristics of the following subclasses are claimed the patent will be found in this subclass because of the disclosure of indication means on the claimed blade.

346.53 Of specific material:

This subclass is indented under subclass 346.5. Device characterized by the chemical composition or a metallurgical feature of the blade.

346.54 Including metallurgical characteristic:

This subclass is indented under subclass 346.53. Device characterized by internal characteristics of the metal of which the device, or a portion thereof, is composed.

- (1) Note. A steel blade with a "tempered" cutting edge, or a "magnetic" blade or an "annealed" blade, is within the subject matter confines of this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 350, for a blade (other than a razor blade) having a metallurgical feature.

SEE OR SEARCH CLASS:

- 428, Stock Material or Miscellaneous Articles, subclasses 544+ for stock material; e.g., of indefinite length, which is

346.55 Including details of cutting edge:

This subclass is indented under subclass 346.5. Device reciting specific characteristics of the portion of the blade adapted to perform the cutting operation.

- (1) Note. A claim setting forth a groove parallel to the cutting edge, but slightly removed therefrom will be found in this subclass if the groove is disclosed as intended to improve the action of the cutting edge.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 346.53+, for a razor blade characterized by the chemical composition or a metallurgical feature of the cutting edge.
- 346.6, for a razor blade having a groove specifically adapted to make the blade more rigid.
- 356, for a blade (other than a razor blade) having a longitudinally curved cutting edge.
- 357, for a blade (other than a razor blade) having a particular edge structure.

346.56 Toothed or waved edge:

This subclass is indented under subclass 346.55. Device having a cutting edge of serrate or undulate form.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 355, for a blade (other than a razor blade) having a toothed or waved edge.

SEE OR SEARCH CLASS:

- 428, Stock Material or Miscellaneous Articles, subclass 573 for metallic stock material having a width which varies regularly.

346.57 Having three or more cutting edges:

This subclass is indented under subclass 346.5. Device reciting more than two distinct, marginal portions each of which independently serves to perform a cutting operation.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

353, for a blade (other than a razor blade) having plural cutting edges.

346.58 Composite razor blade:

This subclass is indented under subclass 346.5. Device constructed of a plurality of distinguishable elements.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

348, for a blade (other than a razor blade) that is reinforced by being made up of a plurality of elements.

349, for a blade (other than a razor blade) that includes a detachable cutting edge.

346.59 Interfitting sections:

This subclass is indented under subclass 346.58. Device consisting of a plurality of elements each having a cutting edge and having a portion that meshes with a complementary portion on another element to form a unit that functions as a single, multiple-edge blade.

346.6 Reinforces:

This subclass is indented under subclass 346.5. Device characterized by physical conformation which is disclosed as making the device more rigid than it would be.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

346.55, for a razor blade having irregularities near the cutting edge that improve the cutting action of the edge.

346.58, for a razor blade that is made more rigid by additional elements.

348, for a blade (other than a razor blade) that is reinforced.

346.61 Apertured, notched or lugged:

This subclass is indented under subclass 346.5. Device having an opening there through, a recession in a margin thereof, or a raised portion in a generally planar surface thereof.

(1) Note. The structural irregularities described in the disclosures are usually provided for the purpose of securing the blade to other portions of the razor.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

346.52, for a razor blade having an irregularity in its surface serving as an indicating characteristic.

346.55, for a razor blade having irregularities in the vicinity of the cutting edge for the purpose of improving the action of the cutting edge.

346.6, for a razor blade with an irregularity intended to make the blade more rigid.

351, for a blade (other than a razor blade) that is apertured, notched or lugged.

SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclass 596 for metallic stock material having an aperture or cut.

347 Rotary:

This subclass is indented under subclass 346. Blades in which the blade is so constructed as to be rotated during the cutting operation.

(1) Note. For organized cutting tools within this class having rotary blades, see the following subclasses: 26, 42+, 101, 102, 110, 128, 167, 205+, 240, 263+, 276, 292, 300, 306+, 310+, 319, 418+, 422+, 433+, and 440.

(2) Note. For other rotary blade implements and machine specialized to art uses, special attention is drawn to the following classes in search class, below.

SEE OR SEARCH CLASS:

12, Boot and Shoe Making, subclasses 77, 86.7, 87, 88+, and 91+.

37, Excavating, subclasses 205+, 209+, 222, 223+, 238, 242+, and 244+ for a rotary snow excavator.

56, Harvesters, subclasses 249+, 255+, 294, and 295.

69, Leather Manufactures, subclasses 9.5 and 16.

76, Metal Tools and Implements, Making, subclasses 37+ and 85.

79, Button Making, subclass 16.

83, Cutting, subclasses 663+.

99, Foods and Beverages: Apparatus, subclass 593.

- 125, Stone Working, subclasses 13.01+.
- 142, Wood Turning, subclasses 9, 22, 26+ and 40+.
- 144, Woodworking, subclasses 82+, 116 through 119.2, 150, 176, 200, 201, 203+, and 218 through 241.
- 172, Earth Working, subclasses 35+ and 518+ for rotating earth working tools.
- 173, Tool Driving or Impacting, subclasses 213+ for a drive means peculiar to driving a tool or the like about an axis.
- 175, Boring or Penetrating the Earth, subclass 373 and the search there noted for a disc cutter for a rolling cutter bit used for earth boring.
- 299, Mining or In Situ Disintegration of Hard Material, subclass 86 for a hard material disintegrating cutting head with a relatively rolling tooth, and subclass 101 for a rotary cutter head having plural teeth.
- 407, Cutters, for Shaping, for a cutter to be used in a milling machine or lathe.
- 408, Cutting by Use of Rotating Axially Moving Tool, subclasses 199+ for a tool, per se, of that class type.
- 409, Gear Cutting, Milling, or Planing, subclasses 1+ for a gear cutting machine or process; and subclasses 64+ for a milling machine or process.
- 425, Plastic Article or Earthenware Shaping or Treating: Apparatus, subclasses 289+ for a preform severing means combined in a shaping or reshaping apparatus for plastic material.
- 433, Dentistry, subclass 1 for veterinary crown slitters; and subclasses 144+ for other crown slitters.
- 451, Abrading, subclasses 177+, 541+, and 548+.
- 470, Threaded, Headed Fastener, or Washer Making: Process and Apparatus, subclasses 149, 185+, and 198+, except as provided for in Class 408.
- 348 Reinforced:**
This subclass is indented under subclass 346. Blades in which the invention resides in a reinforcement for the blade.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
328, for a reinforced spoon.
346.58+, for a razor blade that is reinforced by additional elements.
346.6, for a razor blade that is reinforced; and see the notes thereto.
- 349 Detachable cutting edge:**
This subclass is indented under subclass 346. Blades in which the cutting edge is substantially coextensive with the blade and is detachable therefrom for purposes of renewal or sharpening.
- (1) Note. This subclass does not include blades which are detachable from the handle by means of a connection at the end of the blade, for which see this class, subclasses 236 and 260 and Class 279, Chucks or Sockets, subclass 9.1, or appropriate indented subclass.
- (2) Note. This subclass does not include holders for detachable blades, for which see this class, subclasses 329+.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
346.58+, for a razor blade made of plural elements.
- SEE OR SEARCH CLASS:
15, Brushing, Scrubbing, and General Cleaning, subclasses 143.1+ for a cleaning implement handle and subclasses 147.1+ for a mop holder.
- 350 Metallurgical feature:**
This subclass is indented under subclass 346. Blades wherein there is a recitation of some metallurgical feature along with the recitation of blade construction.
- (1) Note. Blade construction includes a recitation of the nature or composition of the cutting edge which differs from the rest of the blade, or a coating on the blade.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
346.54, for a razor blade characterized by a metallurgical feature.

SEE OR SEARCH CLASS:

148, Metal Treatment, subclasses 400+ for metal stock which may be a blade which has been uniformly treated to change its metal metallurgical characteristic. See the definition of subclass 400 for the line between stock proper for 148 and alloys proper for Class 420.

420, Alloys or Metallic Compositions, appropriate subclass for a blade of uniform character which is characterized solely by the alloy or metallic composition from which it is made.

428, Stock Material or Miscellaneous Articles, subclasses 544+ for stock material; e.g., of indefinite length, which is all metal or as adjacent metal components.

351 Apertured, notched or lugged:

This subclass is indented under subclass 346. Blades in which the invention resides in providing apertures, notches or lugs on the blade for cooperation with some organized cutting tool or blade holder.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

339, for apertured blades combined with interlocked holders therefor.

346.61, for a razor blade that is apertured, notched or lugged.

352 Reamer type:

This subclass is indented under subclass 346. Blades which are depressed transversely of the blade, usually in the arc of a circle, and provided with a cutting edge at one or both of the raised sides so that the blade can be used for cutting out apertures in material.

(1) Note. So-called leather punches and some of the fruit corers are here. Other fruit corers will be found in this class, subclasses 278+, 301+, and 316.

353 Plural cutting edge:

This subclass is indented under subclass 346. Blades which have more than one continuous cutting edge.

(1) Note. This group does not include serrated cutting edge blades, for which see this class, subclass 355.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

279.2, 287, and 314, for an organized cutter having plural cutting edges.

346.5+, for a razor blade which may have plural cutting edges.

352 and 356, for other blades having plural cutting edges.

355 Toothed or waved:

This subclass is indented under subclass 346. Blades in which the blade itself is waved and/or its edge is toothed or serrated.

(1) Note. Compare this class, subclass 230.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

346.56, for a razor blade having a cutting edge that is toothed or waved.

SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclass 573 for a metallic stock material having a width which varies regularly, and subclass 604 for metallic stock material having intersecting corrugations or dimples not in a single line.

356 Longitudinally curved:

This subclass is indented under subclass 346. Blades which are curved longitudinally or along their length.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

123.5+, for a citrus fruit cutter having a longitudinally curved blade.

346.55+, for a razor blade having a curved cutting edge.

357 Edge structure:

Inventions in the edge structure of the blades; e.g., the form in which they are ground, etc.

- (1) Note. For the edge structure of razor guards, see this class, subclass 81.
- (2) Note. Compare this class, subclasses 349 and 355.

SEE OR SEARCH THIS CLASS, SUBCLASS:

346.55+, for a razor blade characterized by details of the cutting edge.

358 PERFORATING OR INDENTING:

This subclass is indented under the class definition. Device for cutting work by (1) penetrating through one dimension of the work with the cut not intersecting an edge of the work other than the edges defining the 82+, 116-119.2, 150, 176, 200, 201, 203+, and 218-241 dimension referred to, or (2) effecting a partial penetration of work by movement toward or into a surface of the work without any significant movement along said surface.

- (1) Note. The work portions cut out by the tools of this subclass are usually intended to be scrap. If the part cut out is intended to be used, the tool for effecting such cut will usually be found elsewhere in this class, see particularly subclasses 139, 301 and 316.

SEE OR SEARCH THIS CLASS, SUBCLASS:

443, for a can punch of the push or punch type.

SEE OR SEARCH CLASS:

- 33, Geometrical Instruments, subclasses 666+ for a perforating or indenting implement having means thereon for locating the perforation or indentation with respect to other structure.
- 72, Metal Deforming, subclasses appropriate to cutting and deforming, for disclosure of structure that has claimed means for both perforating and bending metal.
- 81, Tools, subclass 9.2 for a stylus which produces indicia by indentation of a

surface without cutting, or by a manifold transfer operation; and subclass 9.22 for a marking device which includes means for perforating a surface and for introducing marking material into the perforations.

- 101, Printing, subclasses 3.1+ for cutting on or adjacent the printed or written matter on a document to prevent unauthorized or fraudulent alteration of such matter due to the proximity of the cut surfaces to the printed or written matter (e.g., check protecting); also for a cutting tool cutting work in the form of a character, a design, or a pattern which will impart information to an observer, which cut is disclosed as extending only part way through the thickness of the work (e.g., embossing).
- 128, Surgery, appropriate subclasses for a tool that marks an animal by a perforating or indenting operation.
- 222, Dispensing, subclasses 80+ for can opening devices having dispensing characteristics as a part thereof.
- 346, Recorders, for a recorder which may also include a perforating or indenting implement.
- 402, Binder Device Releasably Engaging Aperture or Notch of Sheet, subclass 1 for a sheet binder device which includes a separate aperture making device in which no part cooperates with the sheet retainer to make an opening in a sheet; subclass 7 for a device including a sheet retainer which penetrates and inserts a binder strand through a sheet and subclass 25 for a sheet retainer device which includes means to force a sheet upon a sheet retainer.
- 408, Cutting by Use of Rotating Axially Moving Tool, appropriate subclasses, for an implement for making a hole (or enlarging an existing hole) by a cutting tool which rotates about an axis passing through the tool and moves parallel to the axis of rotation.

- 493, Manufacturing Container or Tube From Paper; or Other Manufacturing From a Sheet or Web, subclasses 340+ for a tool that has claimed means for both perforating and bending paper.
- 359 Combined with other type cutter:**
This subclass is indented under subclass 358. Device having, in addition to a perforating or indenting instrumentality, a cutting device which, per se, is provided for elsewhere in this class.
- SEE OR SEARCH CLASS:
7, Compound Tools, appropriate subclasses for a perforating or indenting tool combined with a tool which, per se, is provided for in another class.
- 360 With portion positioned in work aperture:**
This subclass is indented under subclass 358. Device comprising an element, which is disclosed as extending through an existing opening in the work during the cutting operation.
- (1) Note. The opening through which the element extends is other than the opening to be made in the work by the tool.
- 361 Work-mounted:**
This subclass is indented under subclass 358. Device having means thereon for fixedly securing the implement to the work to be cut so as to enable the implement to be supported by the work.
- 362 Hand-guided, motor-driven:**
This subclass is indented under subclass 358. Device adapted to be guided by hand over the work and constructed so that the perforating or indenting tool may be operated by machine power.
- SEE OR SEARCH CLASS:
81, Tools, subclass 9.22 for an implement which includes motor driven means for perforating a surface and means for introducing coating material into the perforations (e.g., tattooing pen).
- 363 Pivoted handles:**
This subclass is indented under subclass 358. Device comprising a pair of cooperating tool carriers or tool drivers connected to each other so that one carrier or driver may be swung about a fixed axis relative to the other, each of the carriers or drivers being adapted to be grasped by the operator and moved relative to the other so as to effect relative movement of the tools toward each other.
- SEE OR SEARCH CLASS:
81, Tools, particularly subclasses 300+ for tool jaws positioned by relatively movable plural handles (e.g., pliers).
100, Presses, subclass 234 for plier type hinged platen reciprocating presses, not elsewhere provided for.
- 364 Turret of tools:**
This subclass is indented under subclass 363. Device wherein at least one of the tool carrier mounts a plurality of tools swingably mounted on the carrier so that any of the tools may, at the option of the operator, be placed in position to effect cutting of the work.
- 365 Traveling roller:**
This subclass is indented under subclass 358. Device wherein the tool comprises a pivotally mounted member adapted to be rolled over the work to perforate or indent it.
- 366 Pointed:**
This subclass is indented under subclass 358. Device wherein the portion of the tool that is designed to first enter the work to perforate or indent it is pointed.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
164.9, for hand manipulable devices for marking by means of a point or cutting edge.
443, for can punches 164.5 for ice picks.
- SEE OR SEARCH CLASS:
33, Geometrical Instruments, subclasses 18.1+ for scribes and subclasses 666+ for point markers.
223, Apparel Apparatus, subclasses 102+ for needles and especially subclass 104, for awl type, and see the notes to

these subclasses for related needle-like structures.

367 With impact drive:

This subclass is indented under subclass 366. Device having a hammer-like plunger that is not directly secured to the perforating or indenting instrumentality and is effective to force said instrumentality into the work.

SEE OR SEARCH CLASS:

- 81, Tools, subclass 463 and see the notes thereto, for other impact drives.
173, Tool Driving or Impacting, subclasses 90+ for a tool impacting device of general utility.

368 With stripper, sheath or gauge:

This subclass is indented under subclass 366. Device having one or more of the following: (1) a stripper to separate the work and the perforating or indenting instrumentality; (2) a sheath to protect the tool and/or the user when the tool is not in use; and (3) a gauge to limit the penetration of the tool into the work.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 151+, for cutlery sheaths.
164.7, for ice picks with gauges or guides.

SEE OR SEARCH CLASS:

- 33, Geometrical Instruments, subclasses 666+ for point markers combined with locating means.

369 Including contiguous oppositely moving blade portions:

This subclass is indented under subclass 166.3. Device comprising two or more blades in side-by-side contact throughout the extent of their cutting-span, with each blade moving in a direction counter to the movement of the next adjacent blade, said blades cooperating to form a single kerf.

370 With work-underlying guard means:

This subclass is indented under subclass 166.3. Device having means adapted to protect the surface subjacent the work from contact by the tool.

- (1) Note. The devices included herein cut work that is positioned on or closely

adjacent a nonwork member, without damaging or cutting the nonwork member (e.g., cutting ring from finger, plaster cast from body member, or floor covering while in place on the floor).

371 With work-engaging member:

This subclass is indented under subclass 166.3. Device having means in addition to the blade or cutter which (1) contacts and remains stationary with respect to the work during cutting and provides support for or movement to the said cutter, but does not guide or assist in guiding said cutter in a predetermined path with respect to the work or (2) contacts and moves with respect to the work during cutting, and guides or assists in guiding the cutter with respect to the work, or limits undesired movement between the cutter and the work.

372 Affixed to work:

This subclass is indented under subclass 371. Device wherein the work contacting means is adapted to be positively connected to the work in order to prevent relative movement between the work and said work contacting means.

373 Slidable guide plate parallel to saw blade:

This subclass is indented under subclass 371. Device in which the work contacting means comprises a member having a relatively flat work engaging surface, with the saw blade carried relative to the member in a manner such that the plane in which the blade lies is coextensive with, or at all points equidistant from, the plane of the work engaging surface which is adapted to be moved across the work, whereby the saw blade is guided relative to said planar portion of the work.

374 Slidable guide plate intersected by saw blade:

This subclass is indented under subclass 371. Device in which the work contacting means comprises a member having a relatively flat, work engaging surface, wherein the saw blade is carried by the member in a manner such that the blade projects through the plane of said work engaging surface, said work engaging surface being adapted to be moved across the work as the saw is fed through the work.

- 375 Including relatively adjustable saw blade and guide plate:**
This subclass is indented under subclass 374. Device provided with means to permit positional alteration between the blade and the work engaging surface.
- 376 To vary angle between saw and guide plate:**
This subclass is indented under subclass 375. Device in which the means for changing the relationship between the blade and the work engaging surface permits the plane of cut to be changed relative to the plane of the work engaging surface.
- 377 To vary projection of saw blade:**
This subclass is indented under subclass 375. Device in which the means for changing the relationship between the saw blade and the work engaging surface permits the length of blade which projects beyond the plane of the work engaging surface to be altered.
- 378 Including means to press work to saw blade:**
This subclass is indented under subclass 371. Device having means to constantly urge the work into engagement with the saw blade.
- 379 On vehicle moved during cutting:**
This subclass is indented under subclass 166.3. Device wherein the saw is mounted on a ground-traversing, wheeled carrier which is randomly moved under control of the operator during the cutting operation.
- SEE OR SEARCH CLASS:
83, Cutting, subclass 928 for a cutting device mounted on wheeled vehicles which vehicles are parked (i.e., stationary) during the cutting operation.
- 379.5 On vehicle, moved relative thereto during cutting:**
This subclass is indented under subclass 166.3. Device wherein the saw is mounted on a ground-traversing, wheeled carrier; is moved with respect to the carrier and is moved randomly with respect to the ground and work during the cutting operation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
379, for similar structure wherein the carrier for the saw and the carrier for the wheels are fixed to move together during cutting.
- SEE OR SEARCH CLASS:
83, Cutting, subclass 928 for an art collection of cutting machines including a work support which is mounted on a vehicle.
144, Woodworking, subclasses 34.1+ for the combination of a randomly manipulated saw and means to assist the operation of the saw (e.g., a pusher) in the felling of a tree.
- 380 Band:**
This subclass is indented under subclass 166.3. Device wherein the saw blade comprises a strip forming a closed loop wrapped about a plurality of pulleys or drums and having a substantially continuous cutting edge on at least one edge of said strip, and including means to move said cutting edge in the path defined by such loop during the cutting operation of said tool.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
274, for based-supported band knives having blade moving means.
- SEE OR SEARCH CLASS:
69, Leather Manufactures, for a band knife specifically adapted for cutting leather.
83, Cutting, subclasses 788+ for a band and chain knife machine wherein the cutter is not randomly manipulable during cutting.
474, Endless Belt Power Transmission Systems or Components, particularly subclasses 202+ for a positive drive belt; and subclasses 237+ for a friction drive belt.
- 381 Chain:**
This subclass is indented under subclass 166.3. Device wherein the saw member comprises a plurality of cutter elements pivotally interconnected with one another forming a closed loop,

said loop being wrapped about guide means, and including means for moving said loop through the path defined by said guide means.

- (1) Note. In the definitions of the subclasses indented hereunder, the phrase “cutting span” will be used to designate that portion of the loop transiently in engagement with the work during cutting.

SEE OR SEARCH CLASS:

- 83, Cutting, subclasses 788+ for a chain and band knife machine wherein the cutter is not hand manipulable during cutting.
- 474, Endless Belt Power Transmission Systems or Components, particularly subclasses 202+ for a positive drive belt and subclasses 237+ for a friction drive belt.

382 With guard means:

This subclass is indented under subclass 381. Device provided with a hood or casing or other protective member in close spaced association with the cutter elements to prevent harm to the operator or to prevent damage to the cutter elements while the device is in use.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 151+, for cutting implement provided with a “sheath” to protect the blade while the implement is not in use.

383 With guide bar for cutting span:

This subclass is indented under subclass 381. Device in which at least a portion of the guide means comprises a relatively thin, generally flat member having a marginal edge portion which engages cutting elements along the cutting span and enters the kerf produced by the cutter elements during the cutting operation.

384 Including nondriving guide pulley:

This subclass is indented under subclass 383. Device in which a second portion of the guide means comprises an idler-member in the form of a rotatable wheel, disk, or drum, in addition to the guide bar, which idler-member does not transmit driving force to the cutter elements.

385 And means to adjust guide pulley relative to guide bar:

This subclass is indented under subclass 384. Device in which means are provided to permit the position of the idler member to be changed with respect to the relatively thin, generally flat member.

386 Including means to adjust guide bar relation to its support:

This subclass is indented under subclass 383. Device wherein the generally flat portion of the guide means is provided with means to reposition that portion with respect to the remainder of the device.

- (1) Note. Adjustment of this subclass commonly is to establish Tension on the saw chain.

387 Multisectioned guide bar:

This subclass is indented under subclass 383. Device in which the relatively thin, generally flat member comprises a plurality of elements.

- (1) Note. Included in this subclass are guide bars which are laminated or formed from a plurality of relatively movable elements.

388 Rotary:

This subclass is indented under subclass 166.3. Implement in which the saw element is rotated during the cutting operation.

- (1) Note. For other rotary blade saws, see search notes under subclass 166.3 of this class.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 347, and see the notes thereunder for other rotary blade, cutting tools.

389 With peripheral drive means:

This subclass is indented under subclass 388. Implement wherein the means which effects rotational movement of the rotary cutter is applied at the outer rim portion thereof.

390 With guard means:

This subclass is indented under subclass 388. Device provided with a hood or casing or other protective members in close, spaced association with the saw blade to prevent harm to the operator or to prevent damage to the saw blade.

SEE OR SEARCH THIS CLASS, SUBCLASS:

151+, for a cutlery implement provided with a "sheath" to protect the blade while the implement is not in use.

391 Movable to nonguarding position:

This subclass is indented under subclass 390. Device in which the position of the protective member can be shifted or moved away from its protective position.

392 With means to reciprocate saw:

This subclass is indented under subclass 166.3. Device including means to move the saw blade to-and-fro along its cutting edge.

393 In uniplanar compound path:

This subclass is indented under subclass 392. Device in which the drive means causes the saw blade to have motions in addition to the to-and-fro movement along its cutting edge, said additional motions being in the same plane as said to-and-fro movement.

394 Including connecting rod articulated with saw blade or support:

This subclass is indented under subclass 392. Device in which the drive means comprises an intermediate connector having a bearing at each end, one bearing connecting it to the saw blade or support for transmitting motion to the saw blade by a push and pull movement, the other bearing being connected to some force transmitting mechanism.

400 CAN OPENER:

This subclass is indented under the class definition. Device including at least one cutting element having one or more cutting edges for piercing through the wall of a closed metal container.

(1) Note. Included in this subclass and the subclasses indented hereunder, in addition to patents directed to implements,

are patents directed to base mounted machines intended to open metal cans. See paragraph (2) of the Class Definition.

SEE OR SEARCH THIS CLASS, SUBCLASS:

2, for openers for paper receptacles.
406, for a can opener combined with sanitizing means.
408, for a can opener combined with another cutlery device.
410, for a can opener combined with a lid retaining means.

SEE OR SEARCH CLASS:

7, Compound Tools, subclasses 152+ for the combination of a hand held can opener and a diverse tool.
81, Tools, subclasses 3.07+ for receptacle closure removers in general.
222, Dispensing, subclasses 5 and 80+ for can openers having dispensing characteristics as a part thereof.
451, Abrading, subclasses 461+ for a can opener combined with cutlery grinding means.

401 With control means energized in response to activator stimulated by condition sensor:

This subclass is indented under subclass 400. Device having means for: (a) detecting any of the following characteristics: a state or property; or a change in a state or property. The occurrence of a predetermined event in any of the following: the container or its contents; the can opener itself, or the environment of the can opener affecting the operation thereof; and (b) initiating or terminating (as a result of such detection) a force or impulse other than that generated or transmitted by the detecting means; and (c) regulating or modifying (as a direct result of such initiation) the operation of the can opener.

(1) Note. This definition requires a patent to claim at least 4 instrument abilities for original placement herein. One of these must be a can opener. The other 3 are: (a) a senser (e.g., trip lever, push button, photo cell system) to detect a condition as stated in (a) of the definition; (b) an activator (e.g., an element to make-break an electric circuit, a clutch, a valve) to

cause a release of energy more than, or different from that accounted for by mere change of condition (e.g., position or movement) of the senser while it is functioning, and (c) a controller (e.g., a motor or driver) to change or cause the operation of the can opener. Therefore, a cam follower, (or senser) directly linked to the controller, whereby follower movement directly effects controller movement is not proper subject matter for this subclass due to lack of an activator as defined above. On the other hand, disclosure of a cam follower that makes and breaks an electrical circuit that energizes a motor, may be placed herein.

- (2) Note. Patents claiming an on-off switch for activating a motor circuit, and which is adapted to be voluntarily manipulated by the operative, will be placed as originals herein.
- (3) Note. The control system of this and indented subclasses is similar in concept to the control system of other classes, particularly Class 83, Cutting, especially subclasses 58+.

402 Unicyclic reciprocating punch:
This subclass is indented under subclass 401. Device including a reciprocating cutting element driven by a prime mover (controller) and adapted to cut one or more holes in the can, and in which the cutting element, upon activation of the controller, is driven into the can from an original at-rest position, and then returns through a single cycle to its at-rest position without further input from the operative.

403 With stopping upon completion of cut:
This subclass is indented under subclass 401. Device in which the cutting element traverses the wall of the container to detach a portion of the container wherein the detecting means senses completion of the cutting operation and the regulating means acts to stop the operation of the device.

- (1) Note. The stopping means may comprise a timing mechanism which, by disclosure, deactivates the controller (e.g., motor, etc.) at a point in time corre-

sponding to the completion of the cutting operation.

404 Responsive to reaction force between can and cutter:

This subclass is indented under subclass 403. Device wherein the cutting element is forced to traverse the metal of the can against a resistance developed between the cutting element and the can, including provision to detect the amount of resistance and stop the operation of the device if that resistance drops below a pre-determined level.

405 Responsive to can:

This subclass is indented under subclass 401. Device including means to detect the presence or absence of a container and to energize or de-energize a controller in response to said detection.

406 With sanitizer:

This subclass is indented under subclass 400. Device combined with means to remove debris from or kill bacteria on the cutting element of the can opener.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 123.3, for a cutter of general utilization combined with means to apply transient fluid to the cutter.
- 140, for a cutter of general utilization combined with means to heat the cutting blade.

SEE OR SEARCH CLASS:

- 422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 292+ for sterilizing apparatus, per se.

407 Including spout former:

This subclass is indented under subclass 400. Device including means (1) either inherent in the structure of the cutter element or (2) combined therewith, adapted to deform or bend the material of the container to form a pouring spout.

408 With other cutlery means:

This subclass is indented under subclass 400. Device in combination with a noncan opener cutlery implement.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

142, and see the notes thereto, for other combined cutlery.

SEE OR SEARCH CLASS:

7, Compound Tools, subclasses 152+ for the combination of a hand held can opener and a diverse tool.

409 Adapted for right or left hand operation:

This subclass is indented under subclass 400. Device having structure adapting the device for support or drive by either hand of an operative; i.e., the device is capable of being operated in either direction about the container.

(1) Note. Included herein is a progressive fulcrum type can opener including a fulcrum extending from each side of the cutting blade.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

256, for a noncan opener cutter device adapted to either left or right hand operation.

412, for a can opener including two independent cutters.

410 With lid retainer or lifter:

This subclass is indented under subclass 400. Device including means to sever a portion from the container and means to either (1) prevent the severed portion from dropping into the container or (2) raise the severed portion out of the container.

411 With can closure means:

This subclass is indented under subclass 400. Device combined with means to cover an opening in the container made by the cutting element wherein the device is completely disassociated from the can when it is desired to remove contents therefrom.

SEE OR SEARCH CLASS:

220, Receptacles, subclasses 267 and 277+, for metal can opening or arrangements made up as a part of or secured to the container during manufacture, and particularly subclass 278 for a cutting or puncturing tool which

serves as a closure for the opening so cut or punctured, and which remains associated with the container while the same is being emptied of its contents.

412 Including plural independent cutters:

This subclass is indented under subclass 400. Device including a first can opener and a second can opener that is adapted to operate without regard to the operation of the first can opener wherein the operation of the second can opener does not necessarily precede or succeed the operation of the first, or including a first cutting element and a second cutting element that is adapted to operate without regard to the operation of the first cutting element wherein the operation of the second cutting element does not necessarily precede or succeed the operation of the first element.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

408, for a can opener combined with a noncan opener cutlery device.

415, for a can opener including plural cutting elements sequentially operated in the same hole.

413 Progressive fulcrum:

This subclass is indented under subclass 412. Device in which at least one of the can openers is of the type including an actuating handle that is lever-like, and including provision to establish a pivot point which (1) may be established by contact between the container and a portion of the handle engaging the container or (2) may be between the handle and a reaction member engaging the container, which device is intended to cut a continuous path in a series of cutting strokes wherein the pivot point is progressively translated relative to the container.

414 Including punch:

This subclass is indented under subclass 412. Device in which at least one of the cutting elements or can openers included at least one sharp cutting edge and is adapted to pierce through the wall of the container in a single stroke.

- 415 Including plural sequentially operated cutters:**
This subclass is indented under subclass 400. Device including a first cutting element adapted to pierce and form an opening in the wall of the container and including a second cutting element adapted to enter that previously pierced opening of the container.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
446, for a punch-type can opener including a cutting element with plural, spaced cutting edges.
- 416 With driven roller to continuously engage bead and relatively rotate can and opener:**
This subclass is indented under subclass 400. Device particularly adapted to pierce a container composed of a generally planar wall and a generally cylindrical intersecting wall and including a chime (i.e., a bead formed at the joint or seam extending about the periphery of the planar wall), the device including an annular, driven, wheel-like member adapted to continuously engage the chime and thereby cause transversal of the cutting element relative to the container, during the opening operation.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
431, for a can opener in which a lever is employed to drive a roller that intermittently engages the bead.
- 417 Side cut:**
This subclass is indented under subclass 416. Device in which the cutting element is adapted to pierce the container.
- (1) Note. Included in this subclass is a can opener with a cutting element intended to pierce a cylindrical wall of the chime (or bead).
- 418 Cutter comprising driven disc:**
This subclass is indented under subclass 417. Device in which the cutting element is circular about a central axis, includes a cutting edge extending peripherally about the cutting element, and includes means to drive the cutting element about the axis as the cutting edge pierces and traverses the container.
- 419 With means enabling quick release of cutter:**
This subclass is indented under subclass 416. Device including structure specifically intended to enable the cutting element to be readily removed by the operative.
- 420 Roller drive means causes initial piercing:**
This subclass is indented under subclass 416. Device wherein force applied to rotate the wheel-like member causes the cutting element to initially pierce the wall of the container.
- 421 Including prime mover:**
This subclass is indented under subclass 420. Device which includes means to rotate the wheel-like member comprising a motor or other power source, as distinguished from a hand operated mechanism.
- 422 Cutter comprising rotatable disc:**
This subclass is indented under subclass 420. Device in which the cutting element is circular about a central axis, includes a cutting edge extending peripherally about the cutting element, and is supported to turn freely about the axis as the cutting edge pierces and traverses the container.
- 423 Including prime mover:**
This subclass is indented under subclass 416. Device which includes means to rotate the wheel-like member comprising a motor or other power source as distinguished from a hand operated mechanism.
- 424 Cutter comprising rotatable disc:**
This subclass is indented under subclass 423. Device in which the cutting element is circular about a central axis, includes a cutting edge extending peripherally about the cutting element, and is supported to turn freely about the axis as the cutting edge pierces and traverses the container.
- 425 Driven disc:**
This subclass is indented under subclass 424. Device in which the circular cutting element is positively forced to rotate about the central axis during the opening operation.

- 426 Cutter comprising rotatable:**
This subclass is indented under subclass 416. Device in which the cutting element is circular about a central axis, includes a cutting edge extending peripherally about the cutting element, and is supported to turn freely about the axis as the cutting edge pierces and traverses the container.
- 427 Driven disc:**
This subclass is indented under subclass 426. Device in which the circular cutting element is positively forced to rotate about the central axis during the opening operation.
- 428 Including shear couple:**
This subclass is indented under subclass 400. Device including a first cutting element and a second cutting element, the cutting elements cooperating so that their respective cutting edges move past and in substantial contact with one another to perform the cutting operation.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
194+, for a shear of general application.
431, for similar structure in which a cutting element moves past but does not contact a cooperating reaction member.
- 429 Progressive fulcrum:**
This subclass is indented under subclass 400. Device including an actuating handle that is lever-like, and including provision to establish a pivot point which (1) may be established by contact between the container and a portion of the handle engaging the container or (2) may be between the handle and a reaction member engaging the container, which device is intended to cut an continuous path in a series of cutting strokes wherein the pivot point is progressively translated relative to the container.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
409, for a progressive fulcrum-type can opener which includes structure adapting the device to be operated in either direction about the opening formed in the container.
413, for a device including plural independent can openers wherein one of the openers is of the progressive fulcrum type.
- 450, for a can opener including a cutting element intended to pivot about a fulcrum, adapted to pierce a hole in a container.
- 430 Side cut:**
This subclass is indented under subclass 429. Device adapted to pierce a container composed of a generally planar wall and a generally cylindrical intersecting wall in which the cutting element is adapted to pierce the generally cylindrical wall.
- 431 Cutter pivoted to reaction member:**
This subclass is indented under subclass 429. Device including a pivotable connection between the cutting element and the reaction member or the handle.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
428, for a similar device of the shear type, wherein the cutting element moves past and in substantial contact with the reaction member.
- 432 With guide:**
This subclass is indented under subclass 429. Device adapted to pierce a container composed of intersecting walls including structure in addition to the fulcrum adapted to extend along the side of the container during the cutting operation to engage a wall of the container and guide the cutting element along a path conforming to the periphery of the intersecting wall.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
286, and see notes thereunder for a non-can opener cutlery device with a guide.
- 433 With means to relatively rotate can and opener:**
This subclass is indented under subclass 400. Device including a force multiplying means employed to relatively turn the container and cutting element about a fixed point to force the cutting element to traverse the container.
- (1) Note. A simple lever or handle to be manipulated by the operator to relatively

rotate the container and opener is not considered to be a force multiplying means under the definition of this subclass.

434 Comprising means to rotate can:
This subclass is indented under subclass 433. Device including a supporting base, wherein the force multiplying means is employed to turn the container relative to the cutting element and the base.

435 Including sweep cutter:
This subclass is indented under subclass 400. Device including (1) means to establish a pivot point between the cutting element and the container, which pivot point is generally in the center of the area to be removed, (2) means to be gripped by an operative to carry the cutting element about the pivot point, and (3) a cutting edge adapted to pierce and traverse the wall of the container.

SEE OR SEARCH THIS CLASS, SUBCLASS:

310, and see the notes thereunder, for a noncan-opener sweep cutter.

433+, for a can opener including a sweep cutter and a force multiplying means to relatively rotate the container and opener.

436 With can support:
This subclass is indented under subclass 435. Device including a base and structure for holding the container on the base against the force of gravity while the container is being opened.

437 With can penetrating pivot:
This subclass is indented under subclass 435. Device in which the pivot point is determined by an element of the device other than the cutting edge, adapted to pierce through the top of the can.

438 Variable cutter radius:
This subclass is indented under subclass 437. Device in which the distance between the cutting element and the can penetrating pivot may change.

439 Freely slidable cutter:
This subclass is indented under subclass 438. Device including a guide arm slidably mounted to either the cutting element or the piercing pivot means to cause rotation of the cutting element about the pivot and permit relative sliding movement between the same radially along the guide arm during the cutting operation.

440 Cutter comprising rotatable disc:
This subclass is indented under subclass 439. Device in which the cutting element is circular about a central axis, includes a cutting edge extending peripherally about the cutting element, and is supported to turn freely about the axis as the cutting edge pierces and traverses the container.

441 Cutter comprising rotatable disc:
This subclass is indented under subclass 438. Device in which the cutting element is circular about a central axis, includes a cutting edge extending peripherally about the cutting element, and is supported to turn freely about the axis as the cutting edge pierces and traverses the container.

442 With means to grip can:
This subclass is indented under subclass 435. Device having means to engage opposing surfaces of a wall of the container to frictionally hold and prevent movement of the container.

443 Including punch:
This subclass is indented under subclass 400. Device wherein the cutting element includes at least one sharp cutting edge and is adapted to pierce through the wall of the container in a single stroke.

SEE OR SEARCH THIS CLASS, SUBCLASS:

411, and see the notes thereunder for a punch-type can opener combined with means to close a punched opening.

414, for plural independent can openers wherein one is of the punch type.

444 With prime mover to drive cutter relative to can:
This subclass is indented under subclass 443. Device including a motor or other power source, as distinguished from a hand operated

- mechanism, employed to force the cutting element to move relative to the container to open the container.
- 445 Peripheral punch:**
This subclass is indented under subclass 443. Device comprising a cutting element including one or more cutting edges which lie along a line corresponding to the opening to be formed in the container and are adapted to cut substantially the entire periphery of the opening during a single stroke substantially normal to the wall of the container.
- 446 Plural-spaced cutting edges:**
This subclass is indented under subclass 443. Device including a first cutting edge and a second cutting edge separated from the first, both edges adapted to pierce the container during a single operating stroke.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
412, for a can opener having plural independently operated cutting elements.
415, for a can opener having plural, distinct, cutting elements adapted for sequential cutting in the same hole.
- 447 With can support:**
This subclass is indented under subclass 446. Device including a base and structure for holding the container on the base against the force of gravity while the container is being opened.
- 448 With can support:**
This subclass is indented under subclass 443. Device including a base and structure for holding the container on the base against the force of gravity while the container is being opened.
- 449 Traversing punch:**
This subclass is indented under subclass 443. Device in which the cutting element is adapted to traverse the wall of the container after initially puncturing the same.
- 450 And fulcrum:**
This subclass is indented under subclass 443. Device including an actuating handle that is lever-like, and including provision to establish a pivot point which (1) may be established by contact between the container and a portion of the handle engaging the container or (2) may be between the handle and a reaction member engaging the container.
- 451 STATIC PENCIL SHARPENER:**
This subclass is indented under the class definition. Device adapted to shape a workpiece, consisting of or including a piece of attributable marking material (pencil), by the removal of a portion of an end or edge thereof, wherein the device comprises a cutter, and a holder or guide for the workpiece in static relation to the cutter.
- (1) Note. A static relationship is denoted when, aside from adjustability (as when a cutter is yieldingly urged against the work), the shaping operation requires no movement of the cutter relative to the workpiece holder or guide.
- (2) Note. A cutter having a notch into which the workpiece is inserted for the shaping operation (e.g., a V-shaped cutter) is considered to include a work guide for this and the indented subclasses. A mere edge or surface against which the workpiece is steadied for shaping the end or edge thereof is likewise considered to be a guide for these subclasses.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
151+, for a sheathed-blade sharpening device, which may be an attachment for a pencil and has no work holder or guide; and subclasses 169+ for a pencil-sharpening device having a scraping blade but no work holder or guide.
- SEE OR SEARCH CLASS:
144, Woodworking, subclasses 28.1+ for a pencil sharpening machine wherein the cutter moves relative to a support therefor or relative to a work holder or guide.
269, Work Holders, subclasses 1+ for a hand maneuvered work holder for a pencil-sharpening operation combined with a tool guide.
407, Cutters, for Shaping, subclasses 29.1+ for a pencil-sharpening file or rasp having no work holder or guide.

- 451, Abrading, subclasses 461+ for an abrasive pencil sharpener with a wiper to clean the cut surface.
- 452 Plural, sequentially engaged cutters:**
This subclass is indented under subclass 451. Device including a plurality of successively employed cutters adapted to perform a plurality of shaping operations on a workpiece.
- (1) Note. To be considered successively employed, cutters must either be spaced from one another so that the workpiece must be separated from, or shifted along the device in order to be moved from one of the cutters to the other, or they must be diverse (i.e., cutters of a plurality of types from the group consisting of: single wire, multiwire, single-blade, multi-blade, abrasive, rasp, and any type distinct from these).
- 453 With debris receiver:**
This subclass is indented under subclass 451. Device including means, other than mere work holder or work guide structure specifically designed to receive and retain particles of material removed from the workpiece.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
136+, for an implement including a knife or scraper combined with means to hold or dispose of material which has been cut.
- SEE OR SEARCH CLASS:
269, Work Holders, subclass 15 for a work holder including a debris receptacle.
- 454 Conical or cylindrical work holder or guide:**
This subclass is indented under subclass 453. Device wherein the work holder or work guide is cylindrical or conical in shape and completely surrounds the end or the section adjacent the end of the workpiece to be sharpened.
- 455 Surface type cutter:**
This subclass is indented under subclass 453. Device wherein the cutter is in the form of a surface (e.g., planar surface) which comprises a multiplicity of cutting edges or points over which the end portion of the workpiece is drawn for the shaping operation.
- 456 Workpiece drawn over transverse, single edge cutter:**
This subclass is indented under subclass 451. Device in which the cutter has only one cutting edge transversely positioned to the direction the workpiece moves during the shaping operation.
- (1) Note. The cutting edge may be curved or angular (i.e., V-shaped). See (3) Note in subclass 451 concerning a V-shaped cutter.
- 457 Having conical or cylindrical work guide:**
This subclass is indented under subclass 451. Device wherein the work holder or guide is cylindrical or conical in shape or the section adjacent the end of the workpiece to the shaped.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
454, for a pencil sharpener including a conical or cylindrical guide and a debris receptacle.
456, for a pencil sharpener including a conical or cylindrical guide and wherein a workpiece is movable transversely of a single-edge cutter.
- 458 And mounting base or handle:**
This subclass is indented under subclass 457. Device including either (a) structure engageable with a supporting surface, whereby the device may be stabilized on, or attached to, the surface; or (b) a specific manually engageable projection extending from the cutter or guide to provide for ease of use.
- 459 With diverse feature:**
This subclass is indented under subclass 458. Device wherein either the stabilizing structure or the projection is intended to serve a purpose different than and in addition to that required for the shaping operation (e.g., receptacle, pocket clip).
- SEE OR SEARCH THIS CLASS, SUBCLASS:
453+, for a pencil sharpener including a debris receptacle in the handle.

SEE OR SEARCH CLASS:

401, Coating Implements With Material Supply, subclasses 50+ for a mechanical pencil combined with a sharpener for the lead and wherein the pencil casing may serve as a handle during the sharpening operation.

460 Open-ended for point protection during writing:

This subclass is indented under subclass 457. Device having an opening through the end thereof opposite and aligned with the entrance portion of the guide, which opening is large enough to permit the protrusion therethrough of only a reduced working end of the workpiece so as to permit retention of the device on the workpiece during, and without interference with, the marking operation.

SEE OR SEARCH CLASS:

401, Coating Implements With Material Supply, subclass 91 for a pencil-point protector which includes no sharpener structure.

461 Adjustable or resilient cutter structure:

This subclass is indented under subclass 457. Device including a cutter or cutter support which is shiftable or yieldable to accommodate various sizes of workpiece, or to permit variation in the nature of the cut.

- (1) Note. A cutter which is fixed to a digitally compressible guide to tighten the cutter about the workpiece is considered yieldable or shiftable for this subclass.

462 Surface type cutter:

This subclass is indented under subclass 451. Device wherein the cutter is in the form of a surface (e.g., planar surface) which comprises a multiplicity of cutting edges or points over which the end portion of the workpiece is drawn for the shaping operation.

SEE OR SEARCH THIS CLASS, SUBCLASS:

172, for a cutter having a plurality of scraper blades; and see subclass 164.8 for a plural edge or point ice scraper.

455, for a pencil sharpener including a debris receptacle and a face type cutter.

SEE OR SEARCH CLASS:

241, Solid Material Comminution or Disintegration, subclasses 83+ for a comminuter having openings through its face for passage of cut particles; and subclasses 168+, for a hand-manipulable comminution device.

407, Cutters, for Shaping, subclasses 29.1+ for a file or rasp, per se.

451, Abrading, subclasses 344+, 490+, and 452+ for a portable abrading device.

475 POWDERED PLANER:

This subclass is indented under the class definition. Device having a base and an opening through the base, a tool having a cutting edge projecting through the opening, and a motor means adapted to drive the tool relative to a workpiece for the purpose of removing small amounts of wood from the workpiece to provide a flat or configured smooth surface thereon.

- (1) Note. The motor may drive the tool directly, or it may be linked thereto by a gear, chain, belt, or flexible drive. The motor and/or drive need not be claimed.

- (2) Note. Art in this and indented subclasses is distinguishable from a planing machine in that a device classified herein is adapted to be manipulated by hand and moved in its entirety relative to a stationary workpiece, as opposed to a planing machine wherein the workpiece is adapted to be moved relative to a stationary planing device.

SEE OR SEARCH THIS CLASS, SUBCLASS:

478+, for a nonpowered bench plane, and appropriate subclasses for a hand manipulable cutting device.

SEE OR SEARCH CLASS:

15, Brushing, Scrubbing, and General Cleaning, particularly subclasses 49.1+ and 98+ for a portable floor brushing and wiping machine, and subclasses 300.1+ for such a machine

- combined with air blast and/or suction application to the floor.
- 144, Woodworking, subclasses 114.1+ for a wood planing machine wherein the workpiece is adapted to be moved relative to the stationary machine.
- 451, Abrading, subclasses 344+ for a portable abrading device.
- 476 With rolling supports (e.g., wheels, casters):**
This subclass is indented under subclass 475. Device mounted on rotational support members.
- 477 Tool rotates about axis perpendicular to work:**
This subclass is indented under subclass 475. Device wherein the cutting edge is carried by a member adapted to revolve about an axis normal to the planar surface of the workpiece.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
475 and 476, for a rotary material removing member mounted on an axis parallel to the workpiece.
- SEE OR SEARCH CLASS:
144, Woodworking, subclass 118 for a planing machine in which the cutting edge is set in the face of a disk and describes a circular path in contact with the workpiece.
- 478 BENCH PLANE:**
This subclass is indented under the class definition. Device having a base, and a blade having a cutting edge, the blade being associated with the base at a predetermined angle thereto for the purpose of (a) removing wood from the work piece to provide a flat or configured surface thereon; or (b) removing a strip of wood from the workpiece of predetermined cross-section, e.g., toothpick.
- (1) Note. In use, the device is usually passed over the workpiece many times to produce the results of (a) above, but only once to provide a result of (b) above.
- 479 Core box former type:**
This subclass is indented under subclass 478. Device adapted to cut a channel having a rounded cross-section in a workpiece by means
- of an arcuate movement of the cutting edge relative to the base.
- (1) Note. Art in this subclass is of the type used to form a mold section adapted for casting cylindrical cores.
- 480 Strip cutter:**
This subclass is indented under subclass 478. Device adapted to remove a strip of wood of cut material having such a form predetermined cross-section from the workpiece.
- (1) Note. The strip of wood so removed is usually suitable for a predetermined application such as a splint or toothpick.
- 481 With gauge or guide:**
This subclass is indented under subclass 478. Device including means to measure a dimension or guide the plane along a limited or predetermined path.
- 482 Having plane extension:**
This subclass is indented under subclass 478. Device including means to enlarge the base.
- 483 With lubricant dispenser:**
This subclass is indented under subclass 478. Device including means adapted to supply a friction reducing substance to the base.
- 484 To form configured or beveled surface:**
This subclass is indented under subclass 478. Device adapted to either impart a specific configuration, shape, indentation or angled surface to the workpiece.
- (1) Note. A device classified herein creates, for example, a bevel, groove, bead, etc., on a surface of the workpiece.
- 485 Changeable:**
This subclass is indented under subclass 484. Device wherein the angle or configuration of the cut may be altered.
- 486 Recess forming:**
This subclass is indented under subclass 484. Device adapted to form a depression in a workpiece.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
485, for a device having means to alter the base's configuration.
- 487 Having means for adjusting cutting blade:**
This subclass is indented under subclass 478. Device including a mechanism for adjusting the blade relative to the base.
- (1) Note. Planes in which the adjustment is made by loosening the blade and subsequently resetting it manually are not included in this subclass.
- SEE OR SEARCH CLASS:
144, Woodworking, subclass 132 for planing machines with adjustable cutters.
- 488 Pivoted lever and saw:**
This subclass is indented under subclass 487. Devices wherein the mechanism includes a shaft adapted to turn about an axis intermediate its ends, and a threaded adjusting member engaging the blade shaft on one side of the axis, the shaft engaging the blade on the other side of the axis.
- 489 Screw:**
This subclass is indented under subclass 487. Device wherein the mechanism includes a threaded adjusting member engaging the blade.
- 490 Adjustable mouthpiece:**
This subclass is indented under subclass 478. Device including a channel for passage of material cut from a workpiece, and means for changing the channel's size.
- 491 Handle or handle attaching means:**
This subclass is indented under subclass 478. Device wherein significance is attributed to either (a) member adapted to be gripped by an operator, or (b) means to fasten the member to the device.
- 492 Cutting blade clamp:**
This subclass is indented under subclass 478. Device wherein significance is attributed to means for securing the blade in position.
- 493 Cutting blade:**
This subclass is indented under subclass 478. Device wherein significance is attributed to the blade.
- 494 BILLIARD CUE TRIMMER:**
This subclass is indented under the class definition. Device adapted to shape an end of a billiard cue stick.
- SEE OR SEARCH CLASS:
473, Games Using Tangible Projectile, subclass 1 for a device of this class (473) specifically adapted and intended to be used for resurfacing (e.g., roughening), cleaning, or trimming the ball-projecting tips of cue sticks.
- 495 CYLINDRICAL TENON CUTTER:**
This subclass is indented under the class definition. Device adapted to cut a cylindrical end portion of a workpiece having a circular cross-section.
- SEE OR SEARCH CLASS:
142, Wood Turning, subclass 45 for a device including a hollow mandrel for cutting a threaded tenon.
- 500 IMPLEMENTS ADAPTED TO BE DRIVEN BY DETACHABLE PORTABLE POWER-DRIVE MEANS (E.G., ELECTRIC DRILL):**
This subclass is indented under the class definition. Subject matter drawn to a hand manipulable cutting device adapted to be power operated, wherein the prime mover for the device may be easily detached there from so as to be used as the prime mover for some other power operated device.
- 501 Having plural cutting edges:**
This subclass is indented under subclass 166.3. Device including sets of cutting teeth carried on (a) a plurality of blades, or (b) a plurality of sides of a blade.
- 502 Oppositely directly cutting edges:**
This subclass is indented under subclass 501. Device wherein one set of cutting teeth face in a direction opposite from another set of cutting teeth.

- 503 Simultaneously cutting:**
This subclass is indented under subclass 501. Device wherein a plurality of the sets of teeth are adapted to engage with a workpiece at the same time.
- 503.5 Parallel cutting:**
This subclass is indented under subclass 503. Device wherein the sets of teeth are oriented in the same direction.
- 504 Having tooth or blade protective or strengthening means:**
This subclass is indented under subclass 166.3. Device including a protective cover or shield for the cutting teeth, or a reinforcing member for the blade to protect against breakage.
- 505 With gauge for limiting depth of cut:**
This subclass is indented under subclass 166.3. Device including a member adapted to restrict the blade to a predetermined amount of penetration into a workpiece.
- 506 Mounted in truss frame (e.g., bucksaw):**
This subclass is indented under subclass 166.3. Device including (a) a pair of arms attached to, and extending from, the blade at opposite ends; (b) a connector spaced from the blade, adapted to connect the arms; and (c) a tensioning member engaging at least one of the arms, adapted to exert tension upon the blade through the arms.
- 507 Mounted in U-frame:**
This subclass is indented under subclass 166.3. Device including a pair of generally parallel arms joined to form an open ended, "U" shaped support, the arms being adapted to hold the blade between the open ends.
- 508 Offset blade:**
This subclass is indented under subclass 507. Device wherein the blade is either fixed in, or adjustable to, a position which is laterally offset from the support.
- 509 Coping saw:**
This subclass is indented under subclass 507. Device having a relatively fine blade adapted to cut a curve, angle, or interior cut in a workpiece.
- 510 Extensible:**
This subclass is indented under subclass 507. Device wherein the support member can be varied in length or depth.
- 511 Length and depth:**
This subclass is indented under subclass 511. Device wherein both the length of the arms and the length of the structure connecting the arms may be adjusted.
- 512 Collapsible frame:**
This subclass is indented under subclass 507. Device wherein the support can be collapsed (e.g., for storage).
- 513 Blade-tensioning means:**
This subclass is indented under subclass 507. Device including a member adapted to exert tensile force upon the blade.
- 514 With accessory or handle:**
This subclass is indented under subclass 166.3. Device combined with means (a) designed to either be held by an operator (i.e., handle), (b) to otherwise enhance the operation of the device in its intended function, or (c) to perform an additional function, wherein significance is attributed to the means.
- 515 Lubricant dispenser:**
This subclass is indented under subclass 514. Device wherein the means includes a device intended to supply a friction reducing substance to the blade.
- 516 Dust blower:**
This subclass is indented under subclass 514. Device wherein the means includes a device intended to create a flow of air about the blade sufficient to remove particles of cut material.
- 517 Handle:**
This subclass is indented under subclass 514. Device wherein the means includes a member designed specifically to be manually grasped by an operator.
- (1) Note. This subclass and its indents include patents with nominal recitation of saw structure.

518 Offset:
This subclass is indented under subclass 517. Device wherein the grasped member is either fixed in, or adjustable to, a position which is laterally offset from the blade.

519 Angularly adjustable:
This subclass is indented under subclass 517. Device wherein the grasped member can be selectively oriented at various angles relative to the blade.

520 Double grip:
This subclass is indented under subclass 517. Device wherein the grasped member is adapted to be grasped by both the operator's hands.

521 Spindle type (e.g., for double end cross-cut saw):
This subclass is indented under subclass 517. Device wherein the grasped member comprises a rod-like hand grasp whose longitudinal axis is coplanar with and substantially perpendicular to the blade.

522 Having side clamping plates:
This subclass is indented under subclass 521. Device wherein the handle is secured to the blade by means of a pair of relatively flat plate elements placed on either side of the cutting blade and clamping the cutting blade there between.

523 Fastener passes through transverse passage in handle:
This subclass is indented under subclass 521. Device including a fastening element adapted to secure the hand grasp to the blade and a transversely oriented opening in the hand grasp through which the fastening element passes.

524 Fastener passes through longitudinal extending passage in handle:
This subclass is indented under subclass 521. Device wherein the element which secures the handle to the cutting blade extends or passes through a passage which follows the longitudinal axis of the handle.

525 Scroll type:
This subclass is indented under subclass 517. Device wherein the grasped member has an opening adapted to receive the operator's fingers.

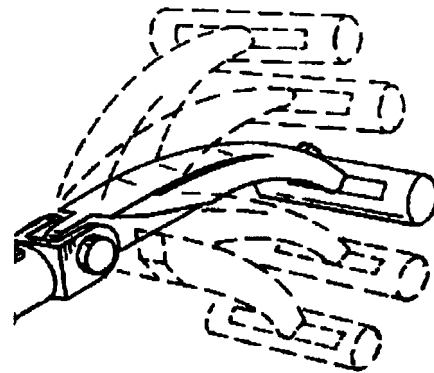
526 Including particular handle or razor handle, per se:
This subclass is indented under subclass 32. Subject matter including specific detail of the structure of the portion of a razor to be grasped by the user or such portion alone.

(1) Note. Flexible handles (e.g., rubber) are placed here.

SEE OR SEARCH THIS CLASS, SUBCLASS:

340+, for a handle or blade connection for other cutlery devices.

527 Having pivotal connection to blade:
This subclass is indented under subclass 526. Subject matter including means connecting the handle to a razor head, allowing a limited rotary motion of the razor head with respect to the handle.



Pivotaly Connected Razor Head

(1) Note. For example, the limited rotary motion may occur about an axis parallel to the longitudinal axis of the handle, or an axis parallel to either the lateral or longitudinal axis of the blade, as shown in the preceding figure.

- (2) Note. A razor with a bendable or deformable material serving as the only connection between a razor head and handle is included herein.
- (3) Note. A razor having a pivotal connection between the blade and handle and can flex during the shaving operation is included herein.

SEE OR SEARCH THIS CLASS, SUBCLASS:

155+, for a cutlery device in general having a blade that is pivotally attached to its handles.

528 With blade extending longitudinally to handle:

This subclass is indented under subclass 527. Subject matter wherein the longitudinal axis of the handle is substantially parallel to the longitudinal cutting edge of the blade during use.

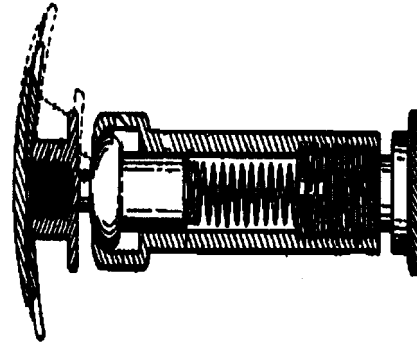
- (1) Note. Included herein is an old style or straight razor.

SEE OR SEARCH THIS CLASS, SUBCLASS:

53+, for a longitudinal razor having a detachable blade.

529 Ball and socket joint:

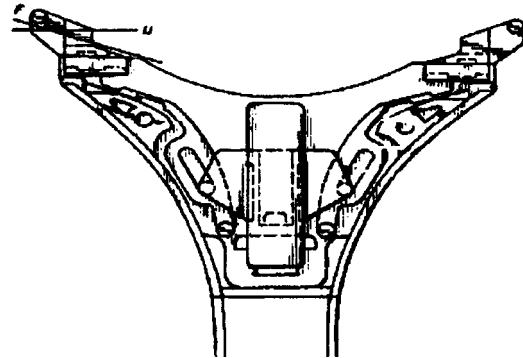
This subclass is indented under subclass 527. Subject matter in which the means pivotally connecting the razor head to the handle comprises either (a) a spherical portion on the razor head seated in an adjacent cavity on the handle or (b) a spherical portion on the handle seated in an adjacent cavity on the razor head.



Ball and Socket Connection

530 Slotted pintle:

This subclass is indented under subclass 527. Subject matter in which the means pivotally connecting the razor head to the handle comprises either (a) a pin on the razor head extending into a groove in the handle or (b) a pin on the handle extending into a groove in the razor head, thereby permitting the pin to roll or slide along the longitudinal axis of the groove, as the razor head moves through a limited angle with respect to the handle.



Razor Connected With Slotted Pintle

531 Including separate means to retain the joint in selected position:

This subclass is indented under subclass 527. Subject matter in which discrete means are provided to maintain the razor head in a predetermined position with respect to the handle.

- (1) Note. The retaining means may allow the razor head to flex with respect to the handle during the shaving operation.
- (2) Note. Included herein are spring biased and threaded retaining means.
- 532 With means to facilitate the assembly and disassembly of blade head from handle:**
This subclass is indented under subclass 527. Subject matter in which means are provided to allow a user to put together or take apart the razor head from the handle, such as for travel.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
534, for a threaded means to secure a razor head to a razor handle in a nonpivotal connection.
- 533 Retractable pintle with limited motion:**
This subclass is indented under subclass 532. Subject matter in which a pivot pin is carried by either the razor head or the handle and protrudes into an opening or recess in an adjacent razor head or handle, including means to permit limited axial movement of the pivot pin to withdraw it from the opening or recess and disconnect the two members.
- 534 Having threaded connection means between blade and handle:**
This subclass is indented under subclass 526. Subject matter in which the cooperating means to secure the razor head to the handle includes a helically ribbed member adapted to turn about its axis and engage an interfitting member.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
532, for a threaded member to secure a razor head to its handle by means of a pivotal connection.
- 535 With receptacle:**
This subclass is indented under subclass 526. Subject matter in which the handle forms a repository for various articles.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
40+, for a razor holding magazine claimed in combination with a razor.
125, for cutlery devices in general in which the handle forms a receptacle.
541, for a receptacle not comprised of handle elements.
- SEE OR SEARCH CLASS:
16, Miscellaneous Hardware (e.g., Bushing, Carpet Fastener, Caster, Door Closer, Panel Hanger, Attachable or Adjunct Handle, Hinge, Window Sash Balance, etc.), subclass 111.1, and the notes thereto appended, for handles which also serve as receptacles.
132, Toilet, subclass 289 for shaving kits.
- 536 Providing blade supply:**
This subclass is indented under subclass 535. Subject matter where the receptacle stores one or more razor blades.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
40+, for a magazine, including a magazine holding blades, wherein a blade may be inserted into the razor head without being touched by the user.
- 537 Attachment or accessory:**
This subclass is indented under subclass 32. Subject matter including a discrete device to be used with a razor or attached to a razor not otherwise provided for designed to enhance the usefulness and improve the performance of the razor.
- (1) Note. Included herein is an insert to be placed between the blade edge and guard.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
1 and 164, for an attachment or accessory for a cutlery device.
34.05+, for a razor combined with a guard, guide, or support.
34.2, for a razor combined with a skin tensioning device.
42, for a razor having means to provide motion to the blade.

- 200+, for a hair clipper combined with a cut regulator.
- 400+, for cutters combined with motive power devices, such as a motor or vibrator.

SEE OR SEARCH CLASS:

- 132, Toilet, subclasses 289+ for a shaving kit.
- 310, Electrical Generator or Motor Structure, subclasses 47+ for a motor for a shaving appliance.

538 Blade conditioner (e.g., blade lubricator):

This subclass is indented under subclass 537. Subject matter comprising a discrete device to treat the razor blade either before or after the shaving operation and provide some manner of treatment to improve or maintain the state of the blade.

- (1) Note. To be included in this subclass the blade conditioner must be claimed as a separate device from the razor structure.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 35+, for a razor combined with a blade sharpening means.
- 41+, for a razor combined with a cleaning means.
- 138+, for a cutlery device in general, combined with a sharpener.

539 Protective blade cover:

This subclass is indented under subclass 537. Subject matter comprising a removable protective shield, which preserves the cutting blade between uses.

540 Made of flexible material:

This subclass is indented under subclass 537. Subject matter in which the protective cover is constructed of a pliable substance.

- (1) Note. The flexible material of this subclass may be rubber, plastic, cloth, etc.
- (2) Note. Material which protects the blade, but would permanently deform under any impact, such as aluminum, is not included herein.

541 Razor holder or storage receptacle:

This subclass is indented under subclass 537. Subject matter comprising means to (a) engage the razor and retain it in one place or position or (b) encase the razor body between uses.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 535, for a receptacle formed from the handle of the razor.

FOREIGN ART COLLECTIONS

The definitions for FOR 100 - FOR 105 below correspond to the definitions of the abolished subclasses under Class 30 from which these collections were formed. See the Foreign Art Collection schedule for specific correspondences. [Note: The titles and definitions for *indented* art collections include all the details of the one(s) that are hierarchically superior.]

FOR 100 Handles:

Foreign art collection including devices claiming the structure of razor handles, per se, or the relation of handle to other parts of a razor organization.

FOR 101 Receptacle:

Foreign art collection including devices in which the handle forms a receptacle for various things.

FOR 102 Pivoted:

Foreign art collection including devices in which the handle is connected by a pivot or like means to the razor blade or holder structure.

FOR 103 Longitudinal:

Foreign art collection including devices of the longitudinal or old style razor type.

FOR 104 Angularly adjustable handle and bad:

Foreign art collection including devices in which the structure provides for varying the angular relation of handle and head, including universal adjustment.

FOR 105 Attachments and accessories:

Foreign art collection including devices to be used with razors not otherwise provided for, as, devices for shielding the cutting edge when the razor is not in use, inserts to be

placed in a detachable razor to cause spacing of the blade edge and guard, liquid applying means such as oiling means, etc.

END