

## **CLASS 368, HOROLOGY: TIME MEASURING SYSTEMS OR DEVICES**

### **SECTION I - CLASS DEFINITION**

#### **A. GENERAL STATEMENT OF THE CLASS SUBJECT MATTER**

1. This class is the generic class for instruments or portions of instruments employed for the measurement of time passage in units of hours, minutes, seconds, or fractions thereof or the like.

2. Also this class is the residual class for systems or devices or portions thereof, so constituted as to effect (i.e., control) the operation of the time measuring instrument.

#### **B. SUBCOMBINATIONS OF TIME PIECE SYSTEMS OR DEVICES**

1. This class includes signal indicators (e.g., alarms, striking mechanisms, displays, etc.) specially designed for operation with or by time measuring instruments.

2. Similarly, other parts of time measuring instruments, (e.g., time bases, escapements, oscillators, etc.) relating to the subject matter of other classes but designed to function as components of timepiece systems or devices are classified in this class.

### **SECTION II - LINES WITH OTHER CLASSES AND WITHIN THIS CLASS**

#### **COMBINATIONS OF OTHER APPARATUS WHICH INCLUDE APPARATUS OF THIS CLASS**

A. Subject matter where the time measuring system or device is controlled by a disparate device is classified here only if not elsewhere classifiable.

B. Noninteractive combinations of disparate devices and time measuring systems or devices are classifiable here if the time measuring art is more than nominally claimed, or not elsewhere classifiable.

C. This class does not include the following subject matter:

(1) Excepting the apparatus combinations as provided for in the Class Definition, B, and in Lines With Other Classes and Within This Class, paragraphs A and B above, systems or devices or portions thereof whose

operation is affected (i.e., controlled) by a time measuring mechanism.

(2) Systems or devices which perform computations involving time or nontime parameters with an output time signal or indication (e.g., average wait time, estimated time of arrival, etc.), such subject matter can be found elsewhere. (See References to Other Classes, below.)

(3) Systems or devices where the time indicating means is a tracing, marking, or the like made by a recording instrument is excluded, such subject matter being proper elsewhere. (See References to Other Classes, below.)

(4) Sundials and like instruments which measure time by the position of a shadow are classified elsewhere. (See References to Other Classes, below.)

### **SECTION III - REFERENCES TO OTHER CLASSES**

#### **SEE OR SEARCH CLASS:**

- 7, Compound Tools, subclasses 101+ for compound tools for watchmaking or repair.
- 29, Metal Working, subclasses 896.3+, 231+, and 807+ for processes of timepiece assembly.
- 33, Geometrical Instruments, subclasses 268+ for straight-line ray-type celestial instruments with time indicators, e.g., sundials.
- 33, Geometrical Instruments, for sundials and like instruments which measure time by the position of a shadow. (Lines With Other Classes and Within This Class, "Combinations of Other Apparatus")
- 40, Card, Picture, or Sign Exhibiting, subclasses 107+ and 358 for printed or painted display calendars; and subclass 335 for pen or pencil carried calendar indicator.
- 63, Jewelry, for timepiece jewelry attachments or housings.
- 73, Measuring and Testing, subclasses 1.43+ for proving or calibrating of timepieces.
- 81, Tools, subclasses 6+ and 122+ for watchmakers tools.
- 84, Music, subclass 484 for metronomes or the like.
- 116, Signals and Indicators, subclasses 206+ for chemically activated time lapse indicators.
- 206, Special Receptacle or Package, subclasses 301+ for timepiece storage or shipping cases.

- 224, Package and Article Carriers, subclass 152, and 164 through 180 for timepiece carriers, e.g., watch bracelet.
- 235, Registers, subclass 114 for time register mechanisms.
- 248, Supports, subclasses 114+ for external supports for timepieces.
- 283, Printed Matter, subclasses 2+ for printed calendars, per se.
- 331, Oscillators, subclass 3 for atomic clocks devices.
- 340, Communications: Electrical, subclasses 1.1 through 16.1, 870.01-870.44, 914, and 926 for electrical communications involving time signals.
- 342, Communications: Directive Radio Wave Systems and Devices (e.g., Radar, Radio Navigation), subclasses 61+ and 73+ for systems in which the time interval between transmission and reception of a returned radio wave is determined.
- 345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 1.1 through 3.4 for visual display systems with selective electrical control.
- 346, Recorders, appropriate subclasses for time measuring apparatus where the time-indicating means is a tracing, marking or the like made by a recording instruments. (See Lines With Other Classes and Within This Class, "Combinations of Other Apparatus").
- 359, Optical: Systems and Elements, appropriate subclasses, especially subclasses 36+ for liquid crystal electro-optical display systems and devices.
- 360, Dynamic Magnetic Information Storage or Retrieval, subclass 12 for time announcement machines controlled by condition responsive (not time) devices.
- 377, Electrical Pulse Counters, Pulse Dividers, or Shift Registers: Circuits and Systems, for pulse counters and pulse counting systems, especially subclass 20 for pulse counters used for measuring time combined with measurement of another parameter.
- 379, Telephonic Communications, subclasses 13, 70-84, 114.01-132, 190-193, 207.04, and 265.07 for telephone time announcement and timing mechanisms.
- 434, Education and Demonstration, subclass 304 for educational time teaching devices.
- 455, Telecommunications, subclasses 231 and 344 for clock radio combinations.
- 701, Data Processing: Vehicles, Navigation, and Relative Location, subclass 465 for systems or devices which perform computations involving time or nontime parameters with an output time signal or indication (e.g., average wait time, estimated time of arrival, etc.). (See Lines With Other Classes and Within This Class, "Combinations of Other Apparatus").
- 702, Data Processing: Measuring, Calibrating, or Testing, subclasses 176+ for time duration or rate measuring.
- 705, Data Processing: Financial, Business Practice, Management, or Cost/Price Determination, subclass 418 for systems or devices which perform computations involving time or nontime parameters with an output time signal or indication (e.g., average wait time, estimated time of arrival, etc.). (See Lines With Other Classes and Within This Class, "Combinations of Other Apparatus").
- 968, Horology, for U. S. patents relating to horology classified according to the European Patent Classification System (EPC), the concept to horology in the EPC is based on an industry type philosophy and therefore encompasses significantly more subject matter than is provided in Class 368, and includes, e.g., conventional clocks and watches, electronic timepieces, sun dials, watchmakers, or watch repair tools, calibration, etc.

## SUBCLASSES

**1 CONTROLLED BY A DISPARATE DEVICE:**

This subclass is indented under the class definition. Subject matter wherein the timepiece is regulated (e.g., turned on or off) directly or indirectly by an apparatus or device which performs an independant function unrelated to time.

**SEE OR SEARCH THIS CLASS, SUBCLASS:**

- 10+, for timepieces with disparate devices where there is no interaction between them.
- 89+, for timers, per se.

- SEE OR SEARCH CLASS:  
360, Dynamic Magnetic Information Storage or Retrieval, subclass 12 for time announcement machines controlled by condition responsive (not time) devices.
- 2 Speed checker:**  
This subclass is indented under subclass 1. Subject matter wherein the disparate device is an object whose velocity (i.e., distance per unit time) across an interval is determined by its time in transit (i.e., elapsed time).
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
113+, for electrical 'event' sensing timers.
- 3 Game:**  
This subclass is indented under subclass 1. Subject matter wherein the disparate device is an amusement apparatus.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
45, for toy timepieces.  
96, for chess clocks.
- 4 Telephone:**  
This subclass is indented under subclass 1. Subject matter wherein the disparate device is a telephone.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
13, for timepieces attached to or housed with telephones without interaction.  
55, for plural timepiece systems with telephone line synchronization.
- SEE OR SEARCH CLASS:  
379, Telephonic Communications, subclasses 70+ for telephone time announcement and timing mechanisms so intimately associated and claimed in combination with telephone equipment as to be inseparable there from as independent devices.
- 5 Engine (e.g., internal combustion):**  
This subclass is indented under subclass 1. Subject matter wherein the disparate device is any mechanism or machine designed to convert energy into mechanical work external to itself.
- 6 Vehicle (e.g., aircraft, automobile) or vehicle part:**  
This subclass is indented under subclass 1. Subject matter wherein the disparate device is a transportation mechanism or an element of a transportation mechanism.
- (1) Note. Documents classified here must contain significant details of a timepiece mechanism.
- SEE OR SEARCH CLASS:  
340, Communications: Electrical, subclasses 917+ for vehicle actuated traffic and vehicle signal indicators with time control or display.
- 7 Actuation of a parking meter:**  
This subclass is indented under subclass 6. Subject matter wherein the vehicle actuates a parking meter means.
- (1) Note. For example, the actuation means may be mechanical linkages to a platform upon which the vehicle comes into contact.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
90+, for parking meter timers for indicating the length of time a vehicle has been parked or the length of time remaining on a parking period.
- SEE OR SEARCH CLASS:  
194, Check-Actuated Control Mechanisms, appropriate subclasses for check (e.g., coin) controlled parking meters.
- 8 Actuation of a running-time meter:**  
This subclass is indented under subclass 6. Subject matter wherein the vehicle activates an operating time, timing device.

- subject matter with nominal timepiece disclosure.
- 9 Electrical device:**  
This subclass is indented under subclass 1. Subject matter wherein the disparate device is electrically operated.
- 10 COMBINED WITH DISPARATE DEVICE:**  
This subclass is indented under the class definition. Subject matter comprising a timepiece housed with or attached to an additional device which has a function other than that of keeping time and which does not serve to perfect the timepiece.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
1, for timepieces controlled by disparate devices.
- 11 Ambient condition detector:**  
This subclass is indented under subclass 10. Subject matter wherein the disparate device is an instrument which measures or senses the state of or a quality of its environment (e.g., thermometer).
- 12 External alarm:**  
This subclass is indented under subclass 10. Subject matter wherein the disparate device is a signal device which gives an audible or visual warning and is not an integral part of the timepiece.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
244+, for alarms integral to and controlled by timepieces.
- 13 Telephone:**  
This subclass is indented under subclass 10. Subject matter wherein the disparate device is a telephone.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
4, for timepiece control by telephone.  
55, for plural timepiece systems with telephone line synchronization.
- SEE OR SEARCH CLASS:  
379, Telephonic Communications, 428.01-440 and 441-456 for similar claimed
- 14 Navigational instrument:**  
This subclass is indented under subclass 10. Subject matter wherein the disparate device is an instrument used to manage or direct the course of a vehicle.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
20, for astronomical timepieces with navigational display.
- 15 ASTRONOMICAL:**  
This subclass is indented under the class definition. Subject matter incorporating means for indicating celestial body data (e.g., tide occurrences, moon phases, etc.).
- (1) Note. Sundials and like instruments which measure time by the position of a shadow are classified in Class 33.
- SEE OR SEARCH CLASS:  
33, Geometrical Instruments, subclasses 268+ for straight-line light ray-type celestial instruments with time indicators.
- 16 With sun, earth, and moon display:**  
This subclass is indented under subclass 15. Subject matter wherein the positions of the sun, earth, and moon are indicated in relation to each other according to the time of day, week, or month.
- 17 With sun and earth display:**  
This subclass is indented under subclass 15. Subject matter wherein the position of both the sun and earth is indicated in relation to each other according to the time of day, week, or month.
- 18 With moon and earth display:**  
This subclass is indented under subclass 15. Subject matter wherein the position of both the moon and earth is indicated in relation to each other according to the time of day, week, or month.

- 19 With tide display:**  
This subclass is indented under subclass 15. Subject matter wherein tide occurrences are indicated according to the time of day.
- 20 With navigational display:**  
This subclass is indented under subclass 15. Subject matter comprising timepiece display means with the specifically disclosed utility of enabling travel route projection.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
14, for timepiece combined (i.e., housed) with a navigational instrument.
- 21 PLURAL TIME ZONES:**  
This subclass is indented under the class definition. Subject matter wherein a timepiece includes means to display the absolute or relative time for more than one of the 24 divisions of the globe which approximately coincide with meridians at successive hours from the observatory at Greenwich, England.
- 22 With manually actuated display:**  
This subclass is indented under subclass 21. Subject matter wherein the display of time in various time zones is available only upon manual activation of the display.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
69+, for chronological timepieces with manually activated display.  
224+, for manually activated displays, per se.
- 23 With a world globe:**  
This subclass is indented under subclass 21. Subject matter wherein the time display includes a spherical representation of the earth.
- 24 Including illumination means:**  
This subclass is indented under subclass 23. Subject matter including means whereby the globe is artificially supplied with light (e.g., from within the globe).
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
67, for chronological timepieces with auxiliary lighting means.
- 227, for auxiliary lighting of time displays, per se.
- SEE OR SEARCH CLASS:  
362, Illumination, subclasses 23+ for illuminated dials, per se.
- 25 With movable belt display:**  
This subclass is indented under subclass 21. Subject matter wherein the time is indicated by display means which include a moving tape or belt.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
40, for timepiece movable belt calendar indicators.  
76+, for mechanical or electromechanical driven displays for chronological timepieces.
- 26 With movable drum display:**  
This subclass is indented under subclass 21. Subject matter wherein the time display indicator includes a moving cylinder.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
39, for timepiece movable drum calendar indicators.  
78, for chronological timepiece drum displays.  
235, for drum display details.
- 27 With movable disk display:**  
This subclass is indented under subclass 21. Subject matter wherein the time display means includes at least one moving circular face (usually more than one), having time minerals or the like thereon.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
35+, and 37+, for movable disk display calendar indicators.  
77, for chronological timepiece rotating disk display.  
220, for rotating disk display trains.  
233, for rotating disk display dials, per se.
- 28 WITH CALENDAR INDICATOR:**  
This subclass is indented under the class definition. Subject matter including means for indicating days of the week, weeks of the month,

months of the year, years or any other man-made divisions of time wherein the lowest time period unit indicated is at least equal to the time of one revolution of the earth on its axis.

**SEE OR SEARCH CLASS:**

- 40, Card, Picture, or Sign Exhibiting, subclasses 107+ and 358 for printed or painted display calendars or the like, per se; and subclass 335 for pen- or pencil-carried calendar indicator.
- 283, Printed Matter, subclasses 2+ for printed calendars, per se.

**29 Electro-optical:**

This subclass is indented under subclass 28. Subject matter wherein the timepiece display means is made from a material whose optical properties can be changed by an electrical signal.

**SEE OR SEARCH THIS CLASS, SUBCLASS:**

- 82+, for chronological timepieces with electro-optical display.
- 239+, for electro-optical displays for timepieces, per se.
- 250+, for electro-optical timepiece alarms.

**30 Liquid crystal display (i.e., LCD):**

This subclass is indented under subclass 29. Subject matter wherein the electro-optical display is a liquid crystal device.

**SEE OR SEARCH THIS CLASS, SUBCLASS:**

- 84, for chronological timepiece with liquid crystal display.
- 242, for timepiece liquid crystal display, per se.

**SEE OR SEARCH CLASS:**

- 40, Card, Picture, or Sign Exhibiting, subclass 448 for liquid crystal changing exhibitors.
- 252, Compositions, subclasses 299.01+ for liquid crystal compositions, per se.
- 345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 38, 50+, and 87+ for liquid crystal display devices with selective electrical control.

- 349, Liquid Crystal Cells, Elements and Systems, appropriate subclasses and especially subclass 142 for optical systems and elements utilizing liquid crystal materials.

**31 Winding and setting:**

This subclass is indented under subclass 28. Subject matter comprising means to impart energy to operate the timepiece by some turning or coiling process as well as to position the time indicators of the timepiece.

**SEE OR SEARCH THIS CLASS, SUBCLASS:**

- 33, for winding timepieces with calendar indicators.
- 34+, for setting timepieces with calendar indicators.
- 185+, for timepiece setting, per se.
- 206+, for timepiece winding, per se.

**32 Having clutch coupling:**

This subclass is indented under subclass 31. Subject matter including a two-piece mechanism comprising two coaxially-mounted means, one of which slidably engages the other for coupling or decoupling.

**SEE OR SEARCH THIS CLASS, SUBCLASS:**

- 191+, for timepiece winding and setting, per se.

**33 Winding:**

This subclass is indented under subclass 28. Subject matter comprising means to impart energy to operate the timepiece through some turning or coiling process.

**SEE OR SEARCH THIS CLASS, SUBCLASS:**

- 31+, for timepiece with calendar winding and setting.
- 206+, for timepiece winding, per se.

**34 Setting or resetting:**

This subclass is indented under subclass 28. Subject matter comprising means to position the time indicators of the timepiece.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
31+, for timepieces with calendar indicator, winding and setting.  
185+, for timepiece setting, per se.
- 35 Movable ring or disk:**  
This subclass is indented under subclass 34. Subject matter wherein at least one of the time indicators is a movable, circular, band, or flat plate.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
37+, for timepieces with calendar indicators having a movable ring or disk.  
233, for timepiece displays having a rotating disk.
- 36 With clutch:**  
This subclass is indented under subclass 35. Subject matter wherein the setting means is selectively coupled to the time indicator by a two-piece mechanism, comprised of two coaxially-mounted means, one of which slidably engages the other to enable the coupling.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
191+, for timepiece winding and setting having a clutch.
- 37 Movable ring or disk:**  
This subclass is indented under subclass 28. Subject matter wherein at least one of the timepiece time indicators is a movable, circular, band, or flat plate.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
35+, for setting or resetting the calendar indicator having a movable ring or disk.
- 38 With jumper spring:**  
This subclass is indented under subclass 37. Subject matter comprising a spring-controlled means for abruptly advancing the ring or disk from one position to another.
- 39 Movable drum:**  
This subclass is indented under subclass 28. Subject matter wherein at least one of the timepiece indicators is a rotating cylinder.
- 40 Movable belt:**  
This subclass is indented under subclass 28. Subject matter wherein at least one of the timepiece time indicators is a striplike band which moves about two or more wheels, pulleys, or the like.
- 41 WITH MEMORANDUM HOLDER OR ERASABLE WRITING SURFACE:**  
This subclass is indented under the class definition. Subject matter wherein a timepiece is provided with a holder (e.g., hook, reel, compartment) for an article having thereon some information for the timepiece user or provided with an erasable writing surface upon which such information may be written.
- 42 Motion controlled by timepiece:**  
This subclass is indented under subclass 41. Subject matter wherein the holder or surface is movable, movement thereof being under control of the time measuring instrument.
- 43 Having alarm controlled by holder:**  
This subclass is indented under subclass 41. Subject matter wherein the holder regulates the operation of a signalling device.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
12, for timepiece combined with but non-interactive with an alarm.
- 44 Having pointer controlled by timepiece:**  
This subclass is indented under subclass 41. Subject matter wherein a pointer is movable under the direction of a time-keeping mechanism and pointing to a particular memorandum, or part thereof, which is pertinent to a user, for a given time or time period.
- 45 TOY:**  
This subclass is indented under the class definition. Subject matter comprising clockwork imitation timepiece means for simulating time keeping functions.

- SEE OR SEARCH CLASS:  
434, Education and Demonstration, subclass 304 for educational time teaching devices.  
446, Amusement Devices: Toys, appropriate subclasses for an imitation time piece.
- 46 PLURAL TIMEPIECE SYSTEM OR SYSTEM DEVICE (E.G., PRIMARY OR SECONDARY CLOCKS):**  
This subclass is indented under the class definition. Subject matter relating to the general organization and mechanism or circuitry of plural timepieces whereby the displays of any number of these timepieces in remote, different localities are operated from a central station.
- (1) Note. The central station includes a primary timepiece for operating the remote timepiece.
- (2) Note. Plug-in AC time base electric clocks are classified in subclass 62 and subclasses indented thereunder.
- SEE OR SEARCH CLASS:  
340, Communications: Electrical, subclasses 870.01+ for telemetering, per se.
- 47 With wireless synchronization:**  
This subclass is indented under subclass 46. Subject matter wherein a remote time-display means is synchronized, if necessary, to agree with the central station time-display at predetermined intervals, and this synchronizing is accomplished by radio frequency-type transmission and receiving means.
- SEE OR SEARCH CLASS:  
375, Pulse or Digital Communications, subclass 354 for synchronizing the operation of sending and receiving mechanisms.
- 48 With auxiliary power source:**  
This subclass is indented under subclass 46. Subject matter wherein the main power source for the system is replaced by an emergency power source in event of main power source failure.
- 49 With significant winding or setting means:**  
This subclass is indented under subclass 46. Subject matter including means for either winding the spring motor or correcting the time indicators of the secondary timepiece.
- (1) Note. Nominal recitations of winding or setting means are not classified in this or indented subclasses.
- 50 For winding only:**  
This subclass is indented under subclass 49. Subject matter comprising means for winding but not setting.
- 51 For setting only:**  
This subclass is indented under subclass 49. Subject matter comprising means for setting but not winding.
- 52 Primary with direct synchronization or drive:**  
This subclass is indented under subclass 46. Subject matter wherein the central station time-piece drives the remote timepieces through a physical (electrical or otherwise) connection with the remote timepieces.
- SEE OR SEARCH CLASS:  
340, Communications: Electrical, subclasses 870.01+ for telemetering, per se.  
375, Pulse or Digital Communications, subclass 106 for synchronizing the operation of sending and receiving mechanisms.
- 53 By external condition responsive means:**  
This subclass is indented under subclass 52. Subject matter wherein the synchronization of the remote time-readout means is accomplished as a result of some condition, such as ambient temperature change.
- 54 By fluidic actuation means:**  
This subclass is indented under subclass 52. Subject matter wherein the synchronization or driving of the remote time-readout means is accomplished by fluid-pressure means.

- 55 By communication means:**  
This subclass is indented under subclass 52. Subject matter comprising transmission means which forms a part of a communication system coupling the primary timepiece to the secondary timepiece.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
4, for timepiece controlled by telephone actuation.  
13, for timepieces noninteractively combined with telephones.
- SEE OR SEARCH CLASS:  
340, Communications: Electrical, subclasses 538+ for combined signalling over communications transmissions means.
- 56 By signal frequency change:**  
This subclass is indented under subclass 52. Subject matter wherein the synchronizing is accomplished by a change in the electrical, mechanical, or electromechanical frequency of the driving signal.
- 57 By signal amplitude change:**  
This subclass is indented under subclass 52. Subject matter wherein the synchronizing is accomplished by a change in the amplitude of the driving signal.
- 58 By signal polarity change:**  
This subclass is indented under subclass 52. Subject matter wherein the synchronizing is accomplished by a change in the polarity of the driving signal.
- 59 Secondary:**  
This subclass is indented under subclass 46. Subject matter relating to the remote timepiece and its mechanism or circuitry for receiving communication from the central station timepiece.
- 60 With mechanical or electromechanical resetting:**  
This subclass is indented under subclass 59. Subject matter wherein synchronization of the remote time-readout means is accomplished by mechanical or electromechanical means (e.g., respectively, spring and lever, or solenoid).
- 61 Having mechanically actuated electrical switch:**  
This subclass is indented under subclass 60. Subject matter wherein an electrical switch is operated, by a mechanism, to actuate the electromechanical means.
- 62 CHRONOLOGICAL:**  
This subclass is indented under the class definition. Subject matter relating to timepieces which repeat an observable process periodically to indicate a measure of time of indefinite continuous duration by regular division, and which contain (a) a time-indicator, and (b) an energy source, or (c) a time base, or (d) a coupling means between a time base and the time-indicator.
- (1) Note. Electrical clocks using plug-in AC as the time base are included in this and indented subclasses.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
89+, for timepieces which measure elapsed time events of either known or unknown duration.
- SEE OR SEARCH CLASS:  
346, Recorders, appropriate subclasses for time measuring apparatus where the time-indicating means is a tracing, marking, or the like made by a recording instrument.
- 63 Phonetic (e.g., talking clock):**  
This subclass is indented under subclass 62. Subject matter wherein the time-indicating means is in the form of human speech.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
272+, for 'cuckoo-clocks'.  
274, for recording indicating means where the recorded material is not human speech.
- SEE OR SEARCH CLASS:  
360, Dynamic Magnetic Information Storage or Retrieval, subclass 12 for time-announcement machines controlled by condition responsive (not time) devices.

- 369, Dynamic Information Storage or Retrieval, subclass 23 for similar subject matter with only nominal horological disclosure.
- 379, Telephonic Communications, subclasses 70+ for time announcement combined with telephone.
- 64 With supplemental power source:**  
This subclass is indented under subclass 62. Subject matter wherein an auxiliary source of power is incorporated in the timepiece.
- (1) Note. Generally, the auxiliary power source is used in the event of failure of the primary source.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
203+, for timepiece power supply details, per se.
- 65 With fluidic actuation means:**  
This subclass is indented under subclass 62. Subject matter wherein the timepiece is driven or operated by fluid means.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
54, for primary timepiece systems with fluidic-2 actuation means.
- 66 With power monitor:**  
This subclass is indented under subclass 62. Subject matter wherein power source status is constantly checked and displayed by means with in the timepiece.
- 67 With auxiliary illumination for display:**  
This subclass is indented under subclass 62. Subject matter wherein the display is supplied with light in addition to whatever light it receives from its environment or whatever light it emits as a result of its operational state or composition.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
227, for timepiece displays with auxiliary illumination, per se.
- SEE OR SEARCH CLASS:  
362, Illumination, subclasses 23+ for illumination of scales or dials, per se.
- Also see search class notes under subclass 23 for other specific dial illumination.
- 68 With intensity control of display:**  
This subclass is indented under subclass 62. Subject matter wherein the timepiece includes means to regulate the brightness of the time display.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
202, for compensating regulating of timepiece display for variations in external lighting.  
223+, for time display details, per se.
- SEE OR SEARCH CLASS:  
345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 20+, 63, 77, and 690-697 for selective intensity control of a visual display system.
- 69 With manually actuated display:**  
This subclass is indented under subclass 62. Subject matter wherein a switch or the like is manually operated to cause the timepiece to exhibit information.
- (1) Note. Subject matter of this subclass and its indent does not include reset mechanisms.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
101+, and 110+, for manually-actuated stop timers.  
224, for manually actuated time display, per se.
- 70 Operated sequentially for distinct time data:**  
This subclass is indented under subclass 69. Subject matter wherein by controlling the actuation means time data is displayed in series by the timepiece.
- (1) Note. For example, with one button (Switch) control-one push of the button the timepiece displays time of day information; a second push of the button and the timepiece displays day/month information, etc.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 224+, for manually activated timepiece displays, per se.  
 288+, for protection involving the push-button and timepiece case.  
 320+, for timepiece switch or detent details, per se.
- SEE OR SEARCH CLASS:  
 200, Electricity: Circuit Makers and Breakers, appropriate subclasses for push-button switch structure, per se.  
 345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 156+ for manually activated selective electrical control for a visual display system.
- 71 With simultaneous time indicating means:**  
 This subclass is indented under subclass 62. Subject matter wherein the timepiece includes a plurality of means for indicating the time concurrently (e.g., visual and audible means).
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 243+, for various timepiece-signalling means, per se.
- 72 Alarm type:**  
 This subclass is indented under subclass 71. Subject matter wherein one of the simultaneous time indicators is a signal means which is actuated by a timepiece when the timepiece reaches a randomly, preset time.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 94, for time interval, gravity-actuated alarm means.  
 98+, for time interval, predetermined mechanical-alarm means.  
 109, for time interval, predetermined electrical-alarm means.  
 244+, for timepiece alarms, per se.
- SEE OR SEARCH CLASS:  
 340, Communications: Electrical, subclasses 500+ for timepiece control of alarms.
- 73 Actuated by electrical means:**  
 This subclass is indented under subclass 72. Subject matter wherein the auxiliary time-indicating means is electrically operated.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 250+, for electrically operated time alarms, per se.
- 74 With significant winding or setting:**  
 This subclass is indented under subclass 72. Subject matter including means for priming the alarm-signalling means (e.g., alarm means coupled to timepiece setting or winding mechanism).
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 185+, for timepiece regulating with setting or winding means.  
 206+, for timepiece winding means, per se.
- 75 Sequential hourly sounding means:**  
 Subject matter under subclass 71 wherein one of the simultaneous time indicators is a signal means which is actuated by a timepiece at regular, uniformly preset times, (e.g., on the hour, half-hour, etc.).
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 243, especially 267+, 269+, 272+, 274, and 275, for regularly sounding timepiece mechanisms, per se.
- 76 With mechanical or electromechanical driven display:**  
 This subclass is indented under subclass 62. Subject matter wherein a display of time information or indication is powered by a mechanical or electromechanical device, for example, a synchronous motor or solenoid.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 139+, for mechanical time bases for timepieces, per se.  
 157+, and 160+, for electromechanical time bases for timepieces, per se.

**SEE OR SEARCH CLASS:**

- 40, Card, Picture, or Sign Exhibiting, subclasses 446+ for mechanically- or electromechanically-driven display means, per se.
- 116, Signals and Indicators, subclasses 200+ for indicators driven by mechanical or electromechanical force.

**77****Rotating disk:**

This subclass is indented under subclass 76. Subject matter wherein the time-display includes at least one disk or plate (usually more than one), having time numerals or the like thereon, which is wheel-shaped and rotates with respect to time-reference-indicating means, e.g., a painted line on a transparent cover, a window, etc.

**SEE OR SEARCH THIS CLASS, SUB-CLASS:**

- 27, for plural time zone timepieces with movable disk display.
- 35+, and 37+, for timepieces with calendar indicators and movable disk display.
- 221, for rotatable disk dial trains.
- 233, for rotatable timepiece disks, per se.

**SEE OR SEARCH CLASS:**

- 116, Signals and Indicators, subclasses 284+ for mechanically rotatable dial indicators.

**78****Drum:**

This subclass is indented under subclass 76. Subject matter wherein the time display is an indicia bearing cylinder which rotates with respect to an indicator.

**SEE OR SEARCH THIS CLASS, SUB-CLASS:**

- 26, for plural time zone timepieces with movable drum display.
- 39, for timepieces with calendar indicators having movable drum display.
- 222, for drum display trains.
- 235, for drum display of time, per se.

**SEE OR SEARCH CLASS:**

- 116, Signals and Indicators, subclass 299 for mechanically, rotatable, indicia bearing drums.

**79****Optical:**

This subclass is indented under subclass 76. Subject matter wherein the time display consists of means for projecting, reflecting, or transmitting electrically produced visible radiation from or through time representative indicia.

**SEE OR SEARCH THIS CLASS, SUB-CLASS:**

- 29+, for timepieces with calendar electro-optical indicators.
- 67, for timepieces with illumination aid for reading the display.
- 82+, for electronic timepieces with electro-optical displays.
- 239+, for timepiece electro-optical displays, per se.

**SEE OR SEARCH CLASS:**

- 116, Signals and Indicators, subclasses 200+, especially 202 and 250 for indicators with visual light signals.
- 340, Communications: Electrical, subclasses 815.4+ for electrical visual-signalling means with indicator means.
- 345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 1.1 through 3.4 for visual display systems with selective electrical control.
- 362, Illumination, subclasses 23+ for artificial-light means for dials.

**80****Hand and dial:**

This subclass is indented under subclass 76. Subject matter wherein the time display consists of a fixed indicia bearing plate and pointers, which rotate with respect to the plate.

**SEE OR SEARCH THIS CLASS, SUB-CLASS:**

- 228+, for timepiece hand or dial details, per se.

**SEE OR SEARCH CLASS:**

- 116, Signals and Indicators, subclasses 284+ for devices having means to apply mechanical force to indicators to cause them to turn about an axis so as to indicate information.

**81 Having motor located in hand:**

This subclass is indented under subclass 80. Subject matter wherein the driving means for the hand and dial display is a motor which is positioned in the hand or hands.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

203, for timepiece power supply details.

**82 With electro-optical display:**

This subclass is indented under subclass 62. Subject matter wherein the timepiece-display means is made of a material whose optical properties can be changed by an electrical signal.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

29, for timepieces with electro-optical calendar display.

79, for mechanically or electromechanically driven electro-optical displays.

239+, for timepiece electro-optical displays, per se.

250+, for timepiece electro-optical-signaling means.

SEE OR SEARCH CLASS:

40, Card, Picture, or Sign Exhibiting, subclasses 447+ for electro-optical changing exhibitors.

345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 1.1 through 3.4 for visual display systems with selective electrical control.

**83 Solid body light emitter (e.g., LED):**

This subclass is indented under subclass 82. Subject matter wherein a change in the optical properties of solid display material is caused by an electrical current and results in the emission of visible radiation.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

241, for timepiece electro-optical solid body light emitter displays, per se.

SEE OR SEARCH CLASS:

257, Active Solid-State Devices (e.g., Transistors, Solid-State Diodes), subclasses 13, 79-103, and 918 for incoherent light emitting injection luminescent devices, and subclasses 80-85 for semiconductor light emitting sources combined with semiconductor light responsive devices.

313, Electric Lamp and Discharge Devices, subclasses 483+ for solid material which produces radiant energy upon electrical excitation.

345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 39, 44+, and 82+ for solid body light-emitting display devices with selective electrical control.

**84 Liquid crystal device (i.e., LCD):**

This subclass is indented under subclass 82. Subject matter wherein a change in the optical properties of the display material is caused by an electrical voltage and results in the reflection or transmission of visible radiation.

(1) Note. A liquid crystal material is a material which flows like a liquid and exhibits anisotropic optical properties which are characteristic of crystals.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

30, for timepieces with calendar information LCD display.

242, for timepiece LCD displays, per se.

SEE OR SEARCH CLASS:

40, Card, Picture, or Sign Exhibiting, subclass 448 for liquid crystal changing exhibitors.

252, Compositions, subclasses 299.01+ for liquid crystal compositions, per se.

345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 38, 50+, and 87+ for liquid crystal display devices with selective electrical control.

349, Liquid Crystal Cells, Elements and Systems, appropriate subclasses and especially subclass 142 for optical systems and elements utilizing liquid crystal materials.

**85 With pulse transforming means:**

This subclass is indented under subclass 62. Subject matter wherein pulse signals are changed or altered by means internal to the timepiece (e.g., multistage frequency dividers with electrical or manual switching).

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 155+, for electrical time bases having pulse-transforming means.
- 200+, for regulating means which adjust the frequency or beat by changing the pulse rate.
- 217+, for timepiece pulse-transforming means, per se.

SEE OR SEARCH CLASS:

- 327, Miscellaneous Active Electrical Non-linear Devices, Circuits, and Systems, subclasses 100+ for miscellaneous pulse shaping converting or generation.
- 377, Electrical Pulse Counters, Pulse Dividers, or Shift Registers: Circuits and Systems, for pulse counters and shift registers, per se.

**86 Including transistor:**

This subclass is indented under subclass 85. Subject matter wherein the transforming means include a transistor circuit or device.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 218+, for timepiece-transistorized pulse-transforming means, per se.

**87 Integrated circuit:**

This subclass is indented under subclass 86. Subject matter wherein a combination of interconnected circuit elements are inseparably associated on or within a continuous substrate.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 219, for pulse-transforming means with FET integrated circuits, per se.

**88 With significant casing or mounting support structure:**

This subclass is indented under subclass 62. Subject matter wherein the timepiece incorporates a special enclosure or upholding means for the timepiece contents within the enclosure.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 88, for gravity-actuated time-interval timers with special support means.
- 203+, for enclosures and supports relating to timepiece power supplies.
- 276+, for timepiece cases with mounting support structure.

SEE OR SEARCH CLASS:

- 206, Special Receptacle or Package, subclasses 301+ for timepiece shipping or storage cases.
- 224, Package and Article Carriers, subclasses 152 and 164-180 for timepiece carriers, e.g., watch bracelet.
- 248, Supports, subclasses 114+ for external supports for timepieces.

**89 TIME INTERVAL:**

This subclass is indented under the class definition. Subject matter wherein means is provided for indicating the time of duration of a particular event or upon termination of a predetermined time period.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 62, for chronological timepieces.

SEE OR SEARCH CLASS:

- 327, Miscellaneous Active Electrical Non-linear Devices, Circuits, and Systems, subclasses 1+ for miscellaneous discriminating circuits.
- 377, Electrical Pulse Counters, Pulse Dividers, or Shift Registers: Circuits and Systems, for pulse counters and pulse counting systems, especially subclass 20 for pulse counters used for measuring time combined with measurement of another parameter.
- 700, Data Processing: Generic Control Systems or Specific Applications, subclass 306 for control based on an elapsed time.

- 702, Data Processing: Measuring, Calibrating, or Testing, subclasses 176+ for data processing in a time duration or rate measurement system.
- 708, Electrical Computers: Arithmetic Processing and Calculating, subclasses 111+ for computational digital watches.
- 90 Parking meter type:**  
This subclass is indented under subclass 89. Subject matter associated with a vehicle or a vehicle parking space for indicating the length of time the vehicle has been parked or the length of time remaining of a parking period.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
7, for parking meter actuation by a vehicle.
- SEE OR SEARCH CLASS:  
194, Check-Actuated Control Mechanisms, appropriate subclasses for a check (e.g., coin) controlled parking meter.
- 91 With gravity actuated timer:**  
This subclass is indented under subclass 90. Subject matter wherein the time indicator is controlled by the flow of a fluid or granular material due to gravity or by the movement of a solid body due to gravity.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
93, for chronometric gravity-actuated timers, per se.
- 92 With overtime indicator:**  
This subclass is indented under subclass 90. Subject matter including an indicator which indicates an additional time interval which is representative of the time beyond the expiration of a previous time period.
- 93 Gravity actuated type (e.g., hourglass):**  
This subclass is indented under subclass 89. Subject matter wherein the time indicating part of the timepiece is controlled by the flow of a fluid or granular material due to gravity or by the movement of a solid body due to gravity.
- 94 With alarm means:**  
This subclass is indented under subclass 93. Subject matter including attention-signalling means to indicate the expiration of a predetermined time interval.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
12, for timepieces combined with external alarms.  
43, for timepieces with memorandum holder-controlled alarms.  
72, for timepieces with plural simultaneous time indicators, one of which is an alarm type.  
98+, and 109, for time interval predetermined timing-alarm means.  
244+, for timepiece alarms, per se.
- 95 With special support means:**  
This subclass is indented under subclass 93. Subject matter including means to hold up the timer structure or housing.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
88, for chronological timepieces with significant casing or mounting support structure.  
276+, for timepiece cases with mounting support structure.
- SEE OR SEARCH CLASS:  
206, Special Receptacle or Package, subclasses 301+ for timepiece shipping or storage cases.  
224, Package and Article Carriers, subclasses 152 and 164-180 for timepiece carriers, e.g., watch bracelet.  
248, Supports, subclasses 114+ for external supports for timepieces.
- 96 With alternately operating indicators (e.g., chess clock):**  
This subclass is indented under subclass 89. Subject matter comprising a plurality of time indicators which operate by turns, i.e., when one timepiece is turned on, the others are turned off.

- 97 With predetermined mechanical timing means:**  
This subclass is indented under subclass 89. Subject matter wherein the timing means operates mechanically to time a preset time interval.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
108+, for predetermined electrical-timing means.  
243+, especially 246, 247, 248, and 263, for repeat time signalling after a preset time interval.
- 98 Including alarm means:**  
This subclass is indented under subclass 97. Subject matter including attention signalling means to indicate the expiration of the time interval.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
94, for gravity actuated timers with alarm means.  
109, for electrical or electromechanical predetermined interval-alarm means.  
244+, for timepiece alarms, per se.
- SEE OR SEARCH CLASS:  
455, Telecommunications, subclasses 231+ for clock radio combinations.
- 99 With combined alarm and time motor:**  
This subclass is indented under subclass 98. Subject matter wherein the alarm train and the time train mechanisms have a common motor.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
258, and 259, for timepiece alarms with combined alarm and time motors, per se.
- 100 With cam controlled striker:**  
This subclass is indented under subclass 98. Subject matter wherein the alarm mechanism has a striking element which is regulated by a cam action.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
254, and 269+, for timepiece cam-controlled signalling means, per se.
- 101 Mechanical stop time type:**  
This subclass is indented under subclass 89. Subject matter wherein the time interval timepiece is operated mechanically with mechanical means for stopping its time indicator at will or upon completion of an event of unknown duration.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
110+, for electrical or electromechanical, mechanically-actuated stop time timepieces.  
113+, for electrical or electromechanical stop time timepieces.
- 102 With plural second hands (e.g., split-seconds):**  
This subclass is indented under subclass 101. Subject matter including timers with more than one second hand for indicating different time intervals.
- 103 With pivoted coupler:**  
This subclass is indented under subclass 101. Subject matter including pivoted-coupling means between the start/stop mechanisms and their time trains.
- 104 With sliding coupler:**  
This subclass is indented under subclass 101. Subject matter including sliding-coupling means between the start/stop mechanisms and their time trains.
- 105 With positive stop:**  
This subclass is indented under subclass 101. Subject matter including means for stopping the timer by placing a lever or brake against or in the path of one of the timer's moving parts.
- 106 With reset means:**  
This subclass is indented under subclass 101. Subject matter including means for returning the time indicator(s) to zero, or an original start position.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

112, for electrically operated, mechanically-actuated stop time timepieces with reset means.

**107 Electrical or electromechanical:**

This subclass is indented under subclass 89. Subject matter wherein the timing means operates by electrical or electromechanical means.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

89+, especially 97+ and 101+ for mechanically-operated time interval-timing means.

SEE OR SEARCH CLASS:

327, Miscellaneous Active Electrical Non-linear Devices, Circuits, and Systems, subclasses 1+ for miscellaneous phase or time discriminating circuits, subclasses 141+ for miscellaneous synchronizing circuits, subclasses 231+ for miscellaneous phase shift circuits, subclasses 263+ for miscellaneous delay circuits, and subclasses 291+ for miscellaneous pulse or clock waveform generation.

342, Communications: Directive Radio Wave Systems and Devices (e.g., Radar, Radio Navigation), subclasses 61+ and 73+ for systems in which the time interval between transmission and reception of a returned radio wave is determined. Those systems determine, for example, the distance or range of an object from the transmission-reception station.

377, Electrical Pulse Counters, Pulse Dividers, or Shift Registers: Circuits and Systems, for pulse counters and pulse counting systems especially subclass 20 for pulse counters used for measuring time combined with measurement of another parameter.

**108 For predetermined interval:**

This subclass is indented under subclass 89. Subject matter wherein the timing means times a preset time interval.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

97, for predetermined mechanical-timing means.

243+, especially 246, 247, 248, and 263, for repeat time signalling after a preset time interval.

**109 Including alarm means:**

This subclass is indented under subclass 108. Subject matter including attention signalling means to indicate the expiration of the time interval.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

98+, for predetermined mechanical-timing means with an alarm.

244+, for timepiece alarms, per se.

**110 Mechanically actuated stop time type:**

This subclass is indented under subclass 107. Subject matter wherein mechanical means is provided for stopping a timepiece indicator at will or upon the completion of a particular event of initially unknown duration.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

101+, for mechanically operated, mechanical stop time timing means.

113+, for electrically or electromechanically operated, electrical-timing means.

**111 With electronic memory storage:**

This subclass is indented under subclass 110. Subject matter including means to electronically store time interval information.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

251, for time piece-signalling means with electronic memory storage.

SEE OR SEARCH CLASS:

365, Static Information Storage and Retrieval, for electronic storage and retrieval of information, per se; subclasses 185.01+ for floating gate memory storage (e.g., flash memory).

**112 With reset means:**

This subclass is indented under subclass 110. Subject matter including means for returning the timepiece indicator to zero, or to an original start position.

SEE OR SEARCH THIS CLASS, SUBCLASS:

106, for mechanically operated, mechanical stop time timers with reset means.

**113 Stop time type:**

This subclass is indented under subclass 107. Subject matter wherein electrical or electromechanical means is provided for stopping a timepiece indicator upon completion of an event of initially unknown duration.

SEE OR SEARCH THIS CLASS, SUBCLASS:

101+, for mechanically operated, mechanical stop time timing means.

110+, for electrically or electromechanically operated mechanical stop time timing means.

**114 With physically changeable element:**

This subclass is indented under subclass 113. Subject matter including means with a nonelectrical characteristic alterable by the time signal or during the time interval, which characteristic indicates by the degree of its alteration the length of the time interval.

- (1) Note. An example of the subject matter of this subclass is an electrolytic cell from which the duration of a time interval is determined by measuring the quantity of the deposit of a metal element from the electrolyte brought about a flow of current through the electrolyte during the time interval to be determined.

SEE OR SEARCH CLASS:

204, Chemistry: Electrical and Wave Energy, subclasses 400+ for electrolytic analysis and testing apparatus.

340, Communications: Electrical, subclass 501 for condition responsive indicator for particular system function.

429, Chemistry: Electrical Current Producing Apparatus, Product, and Process, subclasses 61+ for control means responsive to an electrolytic cell sensor; and subclasses 90+ for means to measure and test an electrolytic cell.

**115 Including cathode-ray tube oscilloscope:**

This subclass is indented under subclass 113. Subject matter having a cathode-ray tube visual display either as the ultimate-indicating means or as an auxiliary or intermediate-indicating means.

- (1) Note. The intermediate-indicating means may consist of a cathode-ray tube display device whose display is sensed or 'read' by photocells.

SEE OR SEARCH CLASS:

315, Electric Lamp and Discharge Devices: Systems, subclasses 1+ for cathode-ray tube systems in general.

324, Electricity: Measuring and Testing, subclass 121 for measuring, testing, or sensing electricity, per se, with a cathode-ray tube.

347, Incremental Printing of Symbolic Information, subclasses 226+ for radiation marking using cathode-ray tube, subclasses 121+ for electrostatic marking using electron beam with an air tight envelope.

**116 With brightner means:**

This subclass is indented under subclass 115. Subject matter having means to increase the light intensity of certain portions of the visual display with respect to another portions of the visual display.

SEE OR SEARCH CLASS:

315, Electric Lamp and Discharge Devices: Systems, subclasses 383+ for cathode-ray sweep circuitry in general with ray intensity control means; and subclass 30 for cathode-ray tube, ray modulation circuitry.

**117 With variable delay means:**

This subclass is indented under subclass 115. Subject matter wherein means is provided to displace to selective extents in time the signal

or a portion of the signal, or signals, representative of the interval to be measured.

- (1) Note. An example of a portion of an interval signal is the 'stop' pulse of a 'start-stop' pair of pulses.

**118 Including time base oscillator:**

This subclass is indented under subclass 113. Subject matter including means generating a periodic or periodically varying electric signal whose period represents a unit interval of time.

- (1) Note. This subclass includes, for example, systems in which the oscillation of fixed frequency oscillators are counted during the interval being measured.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 139+, and 155+, for timepiece time bases, per se.

SEE OR SEARCH CLASS:

- 324, Electricity: Measuring and Testing, subclass 79 for apparatus which compare the frequency or period of one signal with that of another signal.  
331, Oscillators, for oscillators in general; and especially subclasses 111+, 129+, and 143+ for relaxation oscillators.

**119 Plural:**

This subclass is indented under subclass 118. Subject matter having two or more periodic or periodically varying signal generating means with the periods of the signals of at least two of the generating means representing unit intervals of time.

- (1) Note. The unit intervals generated by the plural generating means of this subclass need not be of equal duration. An example of time measuring means including plural generators of signals having different periods is the 'vernier' type of time measuring means.

SEE OR SEARCH CLASS:

- 331, Oscillators, subclasses 37+ for beat frequency oscillators; and subclasses 46+ for plural oscillators.

**120 Including delay means:**

This subclass is indented under subclass 113. Subject matter wherein means are provided to displace in time the signal or a portion of the signal representative of the interval to be measured, for example, the 'start' portion of a 'start-stop' pair of pulses.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 117, for time-measuring means including cathode-ray tube oscilloscopes in combination with delay means.

SEE OR SEARCH CLASS:

- 327, Miscellaneous Active Electrical Non-linear Devices, Circuits, and Systems, subclasses 141+ for miscellaneous synchronizing circuits, subclasses 231+ for miscellaneous phase shift circuits, and subclasses 263+ for miscellaneous delay circuits.  
333, Wave Transmission Lines and Networks, subclasses 138 through 140 for passive delay networks, per se.

**121 Including time indicating means actuated by voltage or electrical charge:**

This subclass is indented under subclass 113. Subject matter having indicating means, usually as the ultimate elapsed time indicator, responsive to a voltage or electrical charge representative of said elapsed time.

- (1) Note. Examples of indicators of this subclass type are: conventional voltmeters, ammeters, and ballistic galvanometers. These meters, in many cases, are calibrated in horological units instead of the electrical quantities to which they actually respond.

SEE OR SEARCH CLASS:

- 327, Miscellaneous Active Electrical Non-linear Devices, Circuits, and Systems, subclasses 1+ for miscellaneous signal discriminating circuits.

**122 With null indicator having variable circuit element:**

This subclass is indented under subclass 121. Subject matter wherein the voltage or electrical charge indicator indicates a state of zero volt-

- age or electrical charge, and variable means is provided to establish said state, the amount of variation of said variable means providing a measure of the time interval.
- 123 With vacuum-tube voltmeter:**  
This subclass is indented under subclass 121. Subject matter wherein the means to indicate the voltage or electrical charge is a high-impedance meter including a space discharge device.
- SEE OR SEARCH CLASS:  
324, Electricity: Measuring and Testing, subclasses 76.11+, especially 123+ for vacuum tube voltmeters, per se.
- 124 ESCAPEMENTS:**  
This subclass is indented under the class definition. Subject matter comprising that portion of a timing device which measures beats and controls the speed of the device's time train.
- SEE OR SEARCH CLASS:  
74, Machine Element or Mechanism, subclass 1.5 for escapements, per se.  
185, Motors: Spring, Weight, or Animal Powered, subclasses 5, 31, and 38 for escapement controlled weight or spring power motors.
- 125 With oscillating or reciprocating means:**  
This subclass is indented under subclass 124. Subject matter including means which move to-and-fro or vibrates as part of the movement of a timepiece.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
157+, and 160+, for electrical time base oscillating or reciprocating elements.  
168+, for timepiece designated oscillating or reciprocating means, per se.
- SEE OR SEARCH CLASS:  
310, Electrical Generator or Motor Structure, subclasses 15+ and 36+ for dynamoelectric reciprocating or oscillating means.  
318, Electricity: Motive Power Systems, subclasses 119+ for reciprocating or oscillating motor, per se.
- 126 Magnetic type:**  
This subclass is indented under subclass 125. Subject matter wherein the oscillating or reciprocating means interacts with the escapement through a magnetic means carried by the oscillating or reciprocating means.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
163, for electrical time base for balance wheel carrying magnetic means.
- 127 Balance wheel type:**  
This subclass is indented under subclass 125. Subject matter wherein the oscillating means is a wheel or wheellike member for regulating the beats of a timepiece.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
158, and 161+, for electrical time bases with balance wheel-type oscillating elements.  
169+, for balance wheel-type oscillating for timepieces, per se.
- 128 With motion conversion drive:**  
This subclass is indented under subclass 127. Subject matter wherein the oscillating motion of the balance is used to impel an element to rotating or rectilinear movement.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
135, for escapements with pendulum-type motion conversion drive means.
- SEE OR SEARCH CLASS:  
310, Electrical Generator or Motor Structure, subclasses 20+ and 37 for dynamoelectric oscillating or reciprocating motion converting mechanisms.
- 129 Carrying impulse receiving means:**  
This subclass is indented under subclass 127. Subject matter wherein the balance wheel-type mechanism supports means for receiving short, impelling forces from an escapement.

- 130 On balance shaft:**  
This subclass is indented under subclass 129. Subject matter wherein the balance wheel and the impulses means are commonly mounted on the same rod or bar element.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
225+, for balance wheel staff details.
- 131 With pallet lock:**  
This subclass is indented under subclass 130. Subject matter including pallet means which intermittently lock and receive impulses from the escapement and transmit the impulses to the balance shaft.
- 132 With levers:**  
This subclass is indented under subclass 127. Subject matter wherein interaction between the escapement and the balance wheel means is accomplished by means of at least two levers, one or more attached to or carrying pallets and another, in the form of a roller with a pin projecting from its face, attached to the balance means staff.
- 133 In straight-line configuration:**  
This subclass is indented under subclass 132. Subject matter having the arbors of the balance wheel means, the escapement wheel means and the escapement lever in a straight line.
- 134 Pendulum type:**  
This subclass is indented under subclass 125. Subject matter wherein the oscillating means is a body so suspended from a fixed point so as to move to-and-fro by the force of gravity and acquired momentum.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
165+, for electrical time bases with pendulum-type oscillating elements.  
179+, for pendulum-type oscillating for timepieces, per se.
- 135 With motion conversion drive:**  
This subclass is indented under subclass 134. Subject matter wherein the oscillating motion of the pendulum is used to impel an element to rotating or rectilinear movement.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
128, for balance wheel-type escapements with motion conversion drive.  
135, for escapements with pendulum-type motion conversion drive means.
- SEE OR SEARCH CLASS:  
310, Electrical Generator or Motor Structure, subclasses 20+ and 37 for dynamoelectric oscillating or reciprocating motion converting mechanisms.
- 136 With gravity actuation:**  
This subclass is indented under subclass 134. Subject matter wherein impulse is given to the pendulum by falling weights.
- 137 With beat adjuster:**  
This subclass is indented under subclass 134. Subject matter including means to regulate the oscillation of the pendulum.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
181+, for regulating pendulum-type oscillating means, per se.
- 138 Having a verge:**  
This subclass is indented under subclass 137. Subject matter including means comprising a lever with lips or projections which intermittently lock the escape wheel and transmit impulses from the escape wheel to the pendulum.
- 139 MECHANICAL TIME BASE:**  
This subclass is indented under the class definition. Subject matter including mechanically-powered means for providing impulses to the beat measuring time indicator control portion of a timepiece.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
155, for timepiece electrical timepieces.
- SEE OR SEARCH CLASS:  
185, Motors: Spring, Weight, or Animal Powered, subclasses 27+ and 37+ for weight and spring-powered motors.

- 140 Mainspring:**  
This subclass is indented under subclass 139. Subject matter wherein the mechanical power supply is a spring which is designated for use as the principal motive power in a timepiece.
- 141 With protection means:**  
This subclass is indented under subclass 140. Subject matter including means to prevent damage to the mainspring area of the timepiece.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
286+, for timepiece cases with protection means.  
326, for balance staff-protection means.
- 142 With mainwheel on barrel:**  
This subclass is indented under subclass 140. Subject matter including a mainwheel attached to a mainspring barrel.
- 143 With mainwheel on arbor:**  
This subclass is indented under subclass 140. Subject matter including a mainwheel attached to a mainspring arbor.
- 144 With attachment means for spring:**  
This subclass is indented under subclass 140. Subject matter including means connecting the mainspring to another part of a timepiece structure.
- 145 With winding and setting:**  
This subclass is indented under subclass 140. Subject matter including means to impart energy to the mainspring as well as means to adjust the timepiece display to a desired condition.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
190+, for timepiece winding and setting means, per se.
- 146 Stem:**  
This subclass is indented under subclass 145. Subject matter wherein the winding and setting means include a manually manipulatable control element, usually cylindrically shaped, which projects to the exterior of the timepiece.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
190+, for timepiece regulating by stem setting and winding means.  
216, for timepiece stem winding, per se.  
288+, for timepiece cases with stem protection means.  
306+, and 308, for timepiece cases with stem details.  
319, for timepiece stem details, per se.
- 147 With winding:**  
This subclass is indented under subclass 140. Subject matter including means for imparting energy to the mainspring through a coiling or turning process.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
206+, for timepiece winding, per se.
- SEE OR SEARCH CLASS:  
81, Tools, subclass 7.5 for watchmakers mainspring winding tools.
- 148 Self:**  
This subclass is indented under subclass 147. Subject matter including means to automatically wind the mainspring.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
207+, for timepiece self-winding means, per se.
- 149 Electric:**  
This subclass is indented under subclass 148. Subject matter wherein the automatic means has an electrical circuit or component.
- 150 Weight control:**  
This subclass is indented under subclass 149. Subject matter wherein a body is moved to provide energy transfer to the mainspring.
- 151 Spring:**  
This subclass is indented under subclass 148. Subject matter wherein the automatic means further includes a secondary spring for controlling the mainspring.

- 152 Gravity:**  
This subclass is indented under subclass 147. Subject matter including a falling weight for providing energy.
- 153 Case controlled:**  
This subclass is indented under subclass 147. Subject matter including means on a housing to provide or regulate the energy, e.g., a rotatable rim or ringlike member.
- 154 With spring click:**  
This subclass is indented under subclass 140. Subject matter including means which is both a spring and a clicking mechanism.
- 155 ELECTRICAL TIME BASE:**  
This subclass is indented under the class definition. Subject matter including electrically-powered means for providing impulses or pulses to the beat measuring time indicator control portion of a timepiece.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
139+, for timepiece mechanical time bases.
- SEE OR SEARCH CLASS:  
318, Electricity: Motive Power Systems, subclasses 119+ for electrical reciprocating or oscillating motors.  
700, Data Processing: Generic Control Systems or Specific Applications, subclass 306 for control based on an elapsed time.  
708, Electrical Computers: Arithmetic Processing and Calculating, subclasses 111+ for computational digital watches.
- 156 Solid-state oscillating circuit type:**  
This subclass is indented under subclass 155. Subject matter wherein the time base includes an oscillating circuit containing solid-state electrical elements.
- SEE OR SEARCH CLASS:  
331, Oscillators, subclasses 107+ for solid state oscillating circuits, per se.
- 157 For reciprocating or oscillating element:**  
This subclass is indented under subclass 156. Subject matter wherein the oscillating circuit controls the actuation of a reciprocating or oscillating element.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
125+, for timepiece escapements with oscillating or reciprocating means.  
160+, for electrical time bases of the non-solid-state oscillating circuit type for reciprocating or oscillating elements.  
168+, for timepiece-designated oscillating or reciprocating means, per se.
- SEE OR SEARCH CLASS:  
310, Electrical Generator or Motor Structure, subclasses 15+ and 36+ for dynamoelectric reciprocating or oscillating means.  
318, Electricity: Motive Power Systems, subclasses 119+ for reciprocating or oscillating motor, per se.
- 158 Balance wheel type:**  
This subclass is indented under subclass 157. Subject matter wherein the element is a wheel for regulating the beats of a timepiece.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
127+, for balance wheel-type escapements.  
161+, for nonsolid-state oscillating circuit-type time bases with balance-wheel means.  
169+, for timepiece oscillating or reciprocating means having balance-wheel means.
- 159 Crystal:**  
This subclass is indented under subclass 157. Subject matter wherein the element is a crystal.
- SEE OR SEARCH CLASS:  
331, Oscillators, subclasses 116+ for solid state oscillators controlling electromechanical resonators.

**160 For reciprocating or oscillating element:**

This subclass is indented under subclass 155. Subject matter wherein the electrical power supply actuates a reciprocating or oscillating element.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 125+, for timepiece escapements with oscillating or reciprocating means.
- 157+, for electrical time bases of the solid state oscillating-circuit type for reciprocating or oscillating elements.
- 168+, for timepiece designated oscillating or reciprocating means, per se.

SEE OR SEARCH CLASS:

- 310, Electrical Generator or Motor Structure, subclasses 15+ and 36+ for dynamoelectric reciprocating or oscillating means.
- 318, Electricity: Motive Power Systems, subclasses 119+ for reciprocating or oscillating motor, per se.

**161 Balance wheel type:**

This subclass is indented under subclass 160. Subject matter wherein the element is a wheel for regulating the beats of timepieces.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 127+, for balance wheel type-escapements.
- 158, for solid-state, electrical, balance wheel type time base.
- 169+, for balance wheel type-oscillating means for timepieces.
- 325+, for balance wheel staff details.

**162 With coil:**

This subclass is indented under subclass 161. Subject matter wherein at least one coil is on the balance wheel.

**163 With magnet:**

This subclass is indented under subclass 161. Subject matter wherein at least one magnet is on the balance wheel.

**164 With opening and closing of contacts:**

This subclass is indented under subclass 161. Subject matter wherein the balance wheel opens and closes an electrical contact.

SEE OR SEARCH CLASS:

- 318, Electricity: Motive Power Systems, subclass 134 for motive power systems having reciprocating or oscillating motors wherein the winding energization is controlled by circuit making and breaking devices.

**165 Pendulum:**

This subclass is indented under subclass 160. Subject matter wherein the element is a pendulum.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 134+, for pendulum-type escapements.
- 179+, for pendulum-type oscillating means for timepieces.

**166 With drive means control:**

This subclass is indented under subclass 165. Subject matter wherein the means to impel an element is regulated by the pendulum.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 181+, for pendulum-type oscillating means with regulation, per se.

**167 Tuning fork:**

This subclass is indented under subclass 160. Subject matter wherein the element is a tuning fork.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 125, for escapements having a tuning fork.
- 168, for timepiece tuning forks, per se.

SEE OR SEARCH CLASS:

- 310, Electrical Generator or Motor Structure, subclass 25 for tuning fork-type motor structure.

**168 OSCILLATING OR RECIPROCATING MEANS:**

This subclass is indented under the class definition. Subject matter including means designed to be moved to-and-for or vibrated as part of the movement of a timepiece.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 125+, for escapements having oscillating or reciprocating means.  
 157+, and 160+, for electrical time bases with oscillating or reciprocating means.
- SEE OR SEARCH CLASS:  
 310, Electrical Generator or Motor Structure, subclasses 15+ and 36+ for dynamoelectric reciprocating or oscillating means.  
 318, Electricity: Motive Power Systems, subclasses 119+ for reciprocating or oscillating motor, per se.
- 169 Balance wheel type:**  
 This subclass is indented under subclass 168. Subject matter wherein the oscillating means is a wheel or wheellike means for regulating the beats of a timepiece.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 127+, for escapements with balance wheel-type oscillating means.  
 158+, and 161+, for electrical time bases with balance wheel-type oscillating elements.
- 170 With regulation:**  
 This subclass is indented under subclass 169. Subject matter including means to control the operation of the balance wheel.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 184+, for regulation of timepiece operation, per se.
- 171 By compensation:**  
 This subclass is indented under subclass 170. Subject matter including means to make up for or offset unwanted variations in the oscillation or reciprocation of the balance wheel.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 202, for regulation of timepieces by compensation, per se.
- 172 By rack and pinion:**  
 This subclass is indented under subclass 170. Subject matter wherein the balance wheel is regulated by means which include a bar with teeth adapted to engage with the teeth of a cog wheel.
- 173 By screw:**  
 This subclass is indented under subclass 170. Subject matter wherein the regulation is accomplished by means varied by screw adjustment.
- 174 With spring bias:**  
 This subclass is indented under subclass 173. Subject matter wherein the screw means is influenced by a spring.
- 175 By hairspring:**  
 This subclass is indented under subclass 170. Subject matter comprising a coiled spring which is used to control the balance wheel movement.
- 176 With curb pins:**  
 This subclass is indented under subclass 175. Subject matter including pin-restraining means, which, in conjunction with the hairspring, serve to regulate the motion of the balance wheel.
- 177 With collet:**  
 This subclass is indented under subclass 175. Subject matter including means attaching the inner end of the hairspring to the balance staff.
- 178 With stud:**  
 This subclass is indented under subclass 175. Subject matter including means to support the outer end of the hairspring.
- 179 Pendulum type:**  
 This subclass is indented under subclass 168. Subject matter including a suspended body (e.g., bob) reciprocating by gravity and momentum.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 134+, for pendulum-type timepiece escapements.  
 165+, for electrical time base pendulum elements.

- 180 Torsion:**  
This subclass is indented under subclass 179. Subject matter wherein a spring or rod receives a twisting strain in order to oscillate a bob.
- 181 With regulation:**  
This subclass is indented under subclass 179. Subject matter including means to adjust the operation of the pendulum.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
137+, for escapements with pendulum beat adjustment.  
184+, for timepiece regulation, per se.
- 182 By thermal compensation:**  
This subclass is indented under subclass 181. Subject matter having means for automatically correcting errors in length due to temperature changes.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
171, for compensating means involving balance wheel-type oscillating means.  
202, for timepiece regulation for compensation, per se.
- 183 With lock:**  
This subclass is indented under subclass 179. Subject matter having means to prevent the oscillating or reciprocating motion of the pendulum.
- 184 REGULATING MEANS:**  
This subclass is indented under the class definition. Subject matter including means intergral to a timepiece to control the timekeeping operation of the timepiece.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
137+, for pendulum escapements with beat adjustment means.  
170+, for balance wheel-type oscillating with regulation.  
181+, for pendulum-type oscillating or reciprocating with regulation.
- 185 For setting:**  
This subclass is indented under subclass 184. Subject matter including means to put timepiece means into proper position, order, or condition for use, and/or including means to adjust timepiece-indicating means in accordance with a time standard or estimate.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
31+, and 34+, for timepiece with calendar indicator setting.  
49+, for plural timepiece system-setting means.  
74, for chronological timepiece alarm setting.  
106, and 112, for time interval timepiece reset means.  
145+, for timepiece mainspring setting.  
243+, for striking and alarm mechanism setting.  
266, for let-off setting.  
275, for deactivation means during setting.
- 186 With rate regulation:**  
This subclass is indented under subclass 185. Subject matter including means to influence or change the operating speed of the timepiece movement.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
137+, for timepiece pendulum escapements with beat-adjustment means.  
200+, for timepiece frequency or beat-adjustment means, per se.
- 187 By electrical device actuation:**  
This subclass is indented under subclass 185. Subject matter wherein the setting means is operated by an electrical device (e.g., switch).
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
69+, and 224+, for timepiece manual display activation wherein the activation means is an electrical switch.  
321, for electrical switch details for timepieces, per se.

- 188 With single actuation and plural pulses:**  
This subclass is indented under subclass 187. Subject matter wherein a single actuation of the setting means enables multiple pulse signals.
- (1) Note. For example, in setting a digital watch, a button is pushed to allow plural pulses to speed the watch display means to the desired setting.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
70, for sequential presentation of chronological time data from timepieces having manually activated displays.
- 189 With pulse blocking means:**  
This subclass is indented under subclass 187. Subject matter wherein the setting means stops a train of pulse signals.
- (1) Note. For example, in setting a watch which is running ahead of time, a button is pushed which blocks pulses to the watch display to slow down or stop the watch, until the correct time is reached.
- 190 By winding means (e.g., stem):**  
This subclass is indented under subclass 85. Subject matter wherein the setting means is used to adjust the timepiece for operation by some turning or coiling process.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
31+, and 33, for timepiece calendar winding.  
49+, for plural timepiece system winding.  
74, for winding of chronological timepieces having an alarm.  
145+, and 147+, for timepiece mainspring-winding means, per se.  
206+, for timepiece-winding means, per se.
- SEE OR SEARCH CLASS:  
81, Tools, subclass 7.5 for watchmakers mainspring winding tools.  
185, Motors: Spring, Weight, or Animal Powered, subclasses 6+, 10+, 32+, and 39+ for spring or weight motor winding.
- 191 Having a clutch:**  
This subclass is indented under subclass 190. Subject matter wherein the setting means includes a two-piece mechanism comprising two coaxially-mounted means, one of which slidably engages the other for coupling or decoupling.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
32, and 36, for timepiece calendar setting with clutch coupling.
- 192 With lever engagement:**  
This subclass is indented under subclass 191. Subject matter wherein a bar is used to control shifting of the clutch.
- 193 Coupling:**  
This subclass is indented under subclass 192. Subject matter including particular means for attaching the lever to the clutch.
- 194 To notch in stem:**  
This subclass is indented under subclass 193. Subject matter wherein the coupling lever is also attached to a cut or indentation in a stem used for winding or setting.
- 195 With coupling spring biased:**  
This subclass is indented under subclass 194. Subject matter wherein a spring engages the lever toward the notched stem.
- 196 Having a movable plate:**  
This subclass is indented under subclass 190. Subject matter wherein the connection between the winding or setting train and the means for putting either or both into operation is made by a flat, pivoted, twin-coupling means adapted to mesh with pinion means of either train.
- 197 With double gear:**  
This subclass is indented under subclass 196. Subject matter wherein the movable plate has two gears, one at each end for coupling with the winding or setting train.
- 198 Cam engagement:**  
This subclass is indented under subclass 197. Subject matter wherein the movable plate is moved into engagement with the winding or setting train by a cam or camlike device.

- 199 Lever engagement:**  
This subclass is indented under subclass 197. Subject matter wherein the movable plate is moved into engagement with the winding or setting train by a bar or bar-like device.
- 200 For adjusting the frequency or beat:**  
This subclass is indented under subclass 184. Subject matter comprising means to control the rate of regularly recurring events in the operation of a timepiece.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
217, for pulse-transforming means for timepieces.
- 201 Of frequency divider:**  
This subclass is indented under subclass 200. Subject matter comprising means for delivering an output which is an integral submultiple or proper fraction of the input frequency.
- 202 For compensation:**  
This subclass is indented under subclass 184. Subject matter comprising means to counter-balance or offset changes in conditions which affect the operation of a timepiece.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
171, for balance-wheel type compensating regulation.  
181+, for pendulum-type compensating regulation.
- 203 POWER SUPPLY DETAILS:**  
This subclass is indented under the class definition. Subject matter including a source of energy means for furnishing motive force to timekeeping means, or means which house or hold the energy source within the timekeeping means enclosure.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
48, and 64, for timing means with an auxiliary or supplemental power source.
- 204 Electrical:**  
This subclass is indented under subclass 203. Subject matter wherein the power supplied is electrical.
- SEE OR SEARCH CLASS:  
429, Chemistry: Electrical Current Producing Apparatus, Product, and Process, subclasses 96+ for support for removable electrical cell (i.e., batteries).
- 205 Solar cell:**  
This subclass is indented under subclass 204. Subject matter wherein solar energy is stored as electrical energy.
- SEE OR SEARCH CLASS:  
136, Batteries: Thermoelectric and Photoelectric, subclasses 243+ for solar cells, per se.
- 206 WINDING MEANS:**  
This subclass is indented under the class definition. Subject matter including means for imparting energy to a timepiece through a coiling or turning process.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
31+, and 33, for timepiece calendar winding.  
49+, for plural timepiece winding.  
74, for winding of chronological timepieces having an alarm.  
145+, and 147+, for timepiece mainspring-winding means.  
190+, for timepiece regulating with combined setting and winding means.
- SEE OR SEARCH CLASS:  
81, Tools, subclass 7.5 for watchmakers mainspring winding tools.  
185, Motors: Spring, Weight, or Animal Powered, subclasses 6+, 10+, 32+, and 39+ for spring or weight motor winding.
- 207 Self:**  
This subclass is indented under subclass 206. Subject matter including means for accomplishing the winding automatically.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
148, for timepiece mainspring self-winding.

- 208 Inertia:**  
This subclass is indented under subclass 207. Subject matter including an oscillating or vibrating body which receives kinetic energy via external motion.
- 209 With overwind prevention:**  
This subclass is indented under subclass 206. Subject matter including means to keep the winding means from being wound beyond its limits.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
141, for timepiece mainspring-protection means.
- SEE OR SEARCH CLASS:  
185, Motors: Spring, Weight, or Animal Powered, subclasses 13, 35, and 43 for spring or weight motor overwind prevention.
- 210 With condition indicator:**  
This subclass is indented under subclass 206. Subject matter including means for showing the degree to which the timepiece is wound or for indicating the need for winding the timepiece.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
249, for timepiece-signalling means condition indicators.
- SEE OR SEARCH CLASS:  
185, Motors: Spring, Weight, or Animal Powered, subclasses 14, 36, and 44 for weight and spring motor winding condition indicators.
- 211 Audio:**  
This subclass is indented under subclass 210. Subject matter wherein a sounding means is employed as the indicator.
- 212 Pointer and scale:**  
This subclass is indented under subclass 210. Subject matter wherein a device which points to scale indicia is the indicator.
- 213 For cranked lever:**  
This subclass is indented under subclass 206. Subject matter wherein the energy is imparted to means for actuating an oscillating or vibrating bar with a crank attachment to power the timepiece.
- 214 Key:**  
This subclass is indented under subclass 206. Subject matter including a device which fits to an end of a shaft to aid in winding.
- 215 Rim:**  
This subclass is indented under subclass 206. Subject matter including a rotatable ringlike member which is a part of the periphery or outer surface of the timepiece.
- 216 Stem:**  
This subclass is indented under subclass 206. Subject matter wherein the winding means includes a cylindrical shaft projecting from the timepiece.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
146, for mainspring stem winding and setting, and see the search notes thereunder.
- 217 PULSE TRANSFORMING MEANS:**  
This subclass is indented under the class definition. Subject matter including means to change pulse characteristics as supplied by a time base.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
85+, for chronological timepieces with pulse-transforming means.  
155+, for electrical time bases having pulse-transforming means.
- SEE OR SEARCH CLASS:  
327, Miscellaneous Active Electrical Non-linear Devices, Circuits, and Systems, subclasses 100+ for miscellaneous pulse shaping, converting, or generating.

- 218 With transistor:**  
This subclass is indented under subclass 217. Subject matter wherein the transforming means includes a transistor circuit or device.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
86+, for chronological transistorized pulse-transforming means.  
156+, for electrical time bases having transistorized pulse-transforming means.
- 219 Field-effect transistor:**  
This subclass is indented under subclass 218. Subject matter wherein the transistor is a field effect transistor.
- 220 DISPLAY TRAINS:**  
This subclass is indented under the class definition. Subject matter relating to trains of gearing which transmit motion to timepiece indicators.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
223+, for timepiece display details.  
243+, for timepiece-signalling means.
- 221 For rotatable disk dial type:**  
This subclass is indented under subclass 220. Subject matter wherein the timepiece indicators driven by the train to turn round an axis are flat, round shaped, platelike objects.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
27, 35+, 37+, 77, and 233, for timepiece rotating disk displays.
- 222 For drum or plate dial type:**  
This subclass is indented under subclass 220. Subject matter wherein the timepiece indicators driven by the train are cylindrically shaped objects or cylinders with plane objects pivotally attached thereto.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
26, 39, 78, and 235, for timepieces with drum or plate displays.
- 223 DISPLAYS OR DISPLAY DEVICE DETAILS:**  
This subclass is indented under the class definition. Subject matter comprising indicator means associated with the indicator means used to convey or in conveying the time.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
243+, for timepiece-signalling means, per se.
- SEE OR SEARCH CLASS:  
40, Card, Picture, or Sign Exhibiting, subclasses 446+ for changing exhibitors.  
116, Signals and Indicators, subclasses 200+ for indicators, per se.  
345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 1.1 through 3.4 for visual display systems with selective electrical control.  
346, Recorders, appropriate subclasses for time measuring apparatus where the time-indicating means is a tracing, marking, or the like made by a recording instrument.
- 224 With manual activation:**  
This subclass is indented under subclass 223. Subject matter wherein a switch or the like is manually operated to cause the display to perform according to design.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
69+, for chronological timepieces with manual actuation.  
101+, and 110+, for manually-actuated stop timers.
- 225 By motion or position:**  
This subclass is indented under subclass 224. Subject matter wherein the activating means is operated by manual movement or orientation of the display means.
- 226 With luminous material:**  
This subclass is indented under subclass 223. Subject matter wherein the indicator means is, at least in part, comprised of a fluorescent, phosphorescent or radioactive substance.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
239+, for electro-optical timepiece displays, per se.
- SEE OR SEARCH CLASS:  
250, Radiant Energy, subclasses 462.1+ especially subclasses 463.1+, for self-luminous dials, pointers, gauges and bands; and subclasses 483.1+ for luminescent devices not classified elsewhere.
- 313, Electric Lamp and Discharge Devices, subclasses 483+ for electric lamp and discharge devices with luminescent solid or liquid material.
- 227 With auxiliary illumination for display:**  
This subclass is indented under subclass 228. Subject matter comprising an accessory for supplying light to the display.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
24, for artificial lighting of world globe plural time zone timepieces.  
67, for chronological timepieces with auxiliary lighting means.
- SEE OR SEARCH CLASS:  
362, Illumination, subclasses 23+ for illumination of scales or dials, per se. Also see search class notes under subclass 23 for other specific dial illumination.
- 228 Dial or hand:**  
This subclass is indented under subclass 223. Subject matter comprising face means with time indicia located thereupon or pointer means for use in conjunction with said face means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
80, for chronological timepieces with mechanical or electromechanical drive for hand and dial display.  
102, for stop time timepieces with plural second hands.
- 229 With animation (e.g., motion clock):**  
This subclass is indented under subclass 228. Subject matter wherein at least part of the display is in the form of a figure which has lifelike movement during the operation of the display, for either timekeeping or entertainment/aesthetic functions.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
272+, for 'cuckoo-clock'-signalling means.
- 230 For tactile time perception (e.g., braille clock):**  
This subclass is indented under subclass 228. Subject matter wherein the time indication is perceived by the sense of touch.
- 231 With time indicia shifting means:**  
This subclass is indented under subclass 228. Subject matter wherein the face shows the hours up to twelve during the first rotation of the hands, after which the numerals are automatically changed to show hours from thirteen to twenty-four.
- 232 Including dial details only:**  
This subclass is indented under subclass 228. Subject matter including features of timepiece faces.
- 233 Of rotatable disk type:**  
This subclass is indented under subclass 232. Subject matter wherein the dial-display means includes at least one face (usually more than one), having time numerals or the like thereon, and is wheel-shaped, and rotates with respect to time-reference means, e.g., a painted line on a transparent cover, a window, etc.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
27, 35+, 37+, and 77, for timepieces with rotatable disk displays.  
222, for rotatable disk dial trains.
- SEE OR SEARCH CLASS:  
116, Signals and Indicators, subclasses 284+ for mechanically-rotatable dial indicators.

- 234 Translucent:**  
This subclass is indented under subclass 232. Subject matter wherein the dial transmits any light shone through it, diffusely.
- 235 Of drum of plate type:**  
This subclass is indented under subclass 232. Subject matter wherein the dial elements are cylindrically-shaped and rotate with respect to a time reference indicator, (e.g., window, fixed mark, etc.), or wherein planar elements are pivotally attached to cylindrically-shaped elements which rotate allowing the planar elements to sequentially indicate the time.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
26, 39, and 78, for timepieces with drum or plate displays.  
222, for drum or plate-type dial trains.
- 236 Of dial fasteners:**  
This subclass is indented under subclass 232. Subject matter with means for mounting or attaching the face.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
309+, for timepiece cases with front or back details.  
314, for timepiece cases with dial or sash securing means.
- 237 Screw:**  
This subclass is indented under subclass 236. Subject matter wherein the mounting or attaching means is a screw.
- 238 Including hand details only:**  
This subclass is indented under subclass 228. Subject matter comprising time indicator pointer features only.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
44, for memorandum holders with a pointer, controlled by a timepiece.  
81, for chronological timepieces with a motor located in a hand.  
102, for stop time, mechanical timepieces having plural second hands.  
253, for timepiece-signalling means with an electrical contact on a hand.
- 239 Optical:**  
This subclass is indented under subclass 223. Subject matter wherein the display includes means for projecting, reflecting, or transmitting, electrically produced visible radiation from or through time representative indicia.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
29+, for timepieces with calendar electro-optical indicators.  
79, for chronological timepieces with mechanical or electromechanical driven optical display.  
82+, for electronic timepieces with electro-optical display.
- SEE OR SEARCH CLASS:  
40, Card, Picture, or Sign Exhibiting, subclasses 447+ for electro-optical changing exhibitors; and subclass 448 for liquid crystal changing exhibitors.  
116, Signals and Indicators, subclasses 200+, especially subclasses 202 and 250 for indicators with visual light signals.  
252, Compositions, subclasses 299.01+ for liquid crystal compositions, per se.  
257, Active Solid-State Devices (e.g., Transistors, Solid-State Diodes), subclasses 13, 79-103, and 918 for incoherent light emitting injection luminescent devices, and subclasses 80-85 for semiconductor light emitting sources combined with semiconductor light responsive devices.  
313, Electric Lamp and Discharge Devices, subclasses 483+ for solid material which produces radiant energy upon electrical excitation.  
340, Communications: Electrical, subclasses 815.4+ for electrical visual-signalling means with indicator means.  
345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 1.1 through 3.4 for visual display systems with selective electrical control.

- 349, Liquid Crystal Cells, Elements and Systems, appropriate subclasses and especially subclass 142 for optical systems and elements utilizing liquid crystal materials.
- 362, Illumination, subclasses 23+ for artificial-light means for dials.
- 240 With circular pattern of light sources:**  
This subclass is indented under subclass 239. Subject matter wherein the indicating means is arranged in a ring or rings.
- 241 With solid body light emitter (e.g., LED):**  
This subclass is indented under subclass 239. Subject matter wherein the indicating means is comprised of solid material which emits visible radiation upon application of an electrical current.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
83, for chronological timepieces with solid body light emitters.
- SEE OR SEARCH CLASS:  
257, Active Solid-State Devices (e.g., Transistors, Solid-State Diodes), subclasses 13, 79-103 and 918 for incoherent light emitting injection luminescent devices, and subclasses 80-85 for semiconductor light emitting sources combined with semiconductor light responsive devices.
- 313, Electric Lamp and Discharge Devices, subclasses 483+ for solid material which produces radiant energy upon electrical excitation.
- 345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 39, 44+, and 82+ for solid body light-emitting display devices with selective electrical control.
- 242 With liquid crystal display (i.e., LCD):**  
This subclass is indented under subclass 239. Subject matter wherein the indicating means is comprised of liquid crystal material which reflects or transmits visible radiation upon application of an electrical voltage.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
30, for timepieces with calendar information LCD display.  
84, for chronological timepieces with LCD display.
- SEE OR SEARCH CLASS:  
40, Card, Picture, or Sign Exhibiting, subclass 448 for liquid crystal changing exhibitors.  
252, Compositions, subclasses 299.01+ for liquid crystal compositions, per se.  
345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 38, 50+, and 87+ for liquid crystal display devices with selective electrical control.  
349, Liquid Crystal Cells, Elements and Systems, appropriate subclasses and especially subclass 142 for optical systems and elements utilizing liquid crystal materials.
- 243 SIGNALLING MEANS:**  
This subclass is indented under the class definition. Subject matter including means for calling attention to the system or device either periodically (e.g., hourly striking clock) or when a nonperiodic preset time is indicated by the system or device.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
223+, for timepiece displays or display device details.
- SEE OR SEARCH CLASS:  
116, Signals and Indicators, subclass 206 for chemically-activated time indicators; and subclasses 22+ for automatic and periodic actuation of signals other than time.
- 244 Time condition responsive (i.e., alarm):**  
This subclass is indented under subclass 243. Subject matter comprising signalling means, capable of being set to be actuated by a timepiece for any predetermined time or times.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 12, for timepieces combined with external alarms.
- 43, for timepieces with memorandum holder-controlled alarm.
- 72, for timepieces with plural, simultaneous, time indicators, one of which is of an alarm type.
- 94, for time interval, gravity actuated-alarm means.
- 98+, for time interval predetermined mechanical-timing alarm means.
- 109, for time interval predetermined electrical-timing alarm means.
- SEE OR SEARCH CLASS:
- 340, Communications: Electrical, subclasses 500+ for timepiece control of alarms.
- 245 With variable loudness or tone:**  
This subclass is indented under subclass 244. Subject matter having variations in the sounds produced by an acoustic- signalling means.
- 246 With same day plural time selection:**  
This subclass is indented under subclass 244. Subject matter wherein means is provided to enable the setting of several different predetermined time-of-day times for the actuation of the alarm.
- 247 For more than one day (e.g., eight-day clock):**  
This subclass is indented under subclass 244. Subject matter wherein the alarm means is associated with a timepiece which will operate for a time period longer than a day with the alarm means actuated each day at the time for which it has been set.
- 248 With automatic repetition over short interval:**  
This subclass is indented under subclass 244. Subject matter including means to automatically actuate the alarm means several time with short intervals between actuations.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 263, for alarm means having shut-off means which reactivate the alarm after a short period of time.
- 249 With signal condition indicator:**  
This subclass is indented under subclass 244. Subject matter including means to display alarm status information such as 'on-off', 'A.M. - P.M.' etc.
- 250 Electrical:**  
This subclass is indented under subclass 244. Subject matter wherein the alarm means is operated electrically.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 109, for predetermined electrical-timing alarm means.
- 251 With electronic memory storage:**  
This subclass is indented under subclass 250. Subject matter including means to electronically store information relating to the actuation of the alarm means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 111, for mechanically-actuated stop time, time interval timers with electronic memory storage.
- SEE OR SEARCH CLASS:
- 365, Static Information Storage and Retrieval, for electronic storage and retrieval of information, per se; subclasses 185.01+ for floating gate memory storage (e.g., flash memory).
- 252 With contact on a circle:**  
This subclass is indented under subclass 250. Subject matter wherein the circuit to be connected to the alarm is in the form of a circle with connection means for completing the circuit located at any point of the circumference.
- 253 With contact on a hand:**  
This subclass is indented under subclass 250. Subject matter wherein the circuit to be connected to the alarm is established through con-

- nection means located on a time indicator hand.
- 254 With cam control:**  
This subclass is indented under subclass 250. Subject matter wherein activation of the alarm is regulated by a cam.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
269+, for timepiece cam-controlled-signalling means, per se.
- 255 With piezoelectric means:**  
This subclass is indented under subclass 250. Subject matter wherein the alarm means is at least partly comprised of material which when subjected to mechanical stress produces a voltage, or when subjected to a voltage undergoes mechanical stress.
- 256 With optical signal:**  
This subclass is indented under subclass 250. Subject matter wherein the alarm is a visible light signal.
- 257 With mechanical let-off:**  
This subclass is indented under subclass 250. Subject matter wherein the alarm circuit is closed by means set in operation by a mechanical trigger or the like.
- 258 Having alarm winding arbor:**  
This subclass is indented under subclass 257. Subject matter wherein the let-off is operated by movement of the winding arbor when an alarm train is activated.
- 259 With combined alarm and time motor:**  
This subclass is indented under subclass 250. Subject matter wherein the timepiece motive power supply is also the alarm motive power supply.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
260, for similar subject matter with mechanical motors.
- 260 With combined alarm and time motor:**  
This subclass is indented under subclass 244. Subject matter wherein the timepiece motive power supply is also the alarm motive power supply.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
259, for similar subject matter with electrical motors.
- 261 Plural:**  
This subclass is indented under subclass 244. Subject matter having more than one signalling means.
- 262 With shutoff:**  
This subclass is indented under subclass 244. Subject matter including means for stopping the alarm.
- 263 For short period:**  
This subclass is indented under subclass 262. Subject matter including means initiated by activation of the shutoff mechanism for reactivating the alarm after a short time interval.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
248, for automatic alarm actuation several times over short intervals.
- 264 Having spring wind release:**  
This subclass is indented under subclass 262. Subject matter including means to release the shutoff mechanism upon winding the time or alarm spring of the timepiece.
- 265 With let-off:**  
This subclass is indented under subclass 244. Subject matter wherein the alarm means is set in operation by a mechanical trigger or the like.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
257, for timepiece electrical alarm with mechanical let-off.
- 266 Setting:**  
This subclass is indented under subclass 265. Subject matter including means for priming the let-off mechanism.
- 267 Repeat:**  
This subclass is indented under subclass 243. Subject matter including means to reactivate the signalling means.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
248, for automatic repeating timepiece alarms.
- 268 Double snail:**  
This subclass is indented under subclass 267. Subject matter wherein the reactivation means include at least two spiral or volute shaped cams.
- 269 Cam controlled:**  
This subclass is indented under subclass 243. Subject matter wherein the signalling means is activated through an eccentric wheel or the like motion conversion element.
- 270 Snail:**  
This subclass is indented under subclass 269. Subject matter wherein the cam is spiral or volute shaped.
- 271 Pin:**  
This subclass is indented under subclass 269. Subject matter wherein a pin is attached to the cam.
- 272 Musical (e.g., 'cuckoo-clock'):**  
This subclass is indented under subclass 243. Subject matter wherein the signalling means is a musical instrument or device including 'cuckoo-clocks' and the like.
- 273 Chimes:**  
This subclass is indented under subclass 272. Subject matter wherein the musical device operates percussively to produce harmonious sound.
- 274 Recorded:**  
This subclass is indented under subclass 243. Subject matter wherein the signalling means is a recording playback device to reproduce pre-recorded audio or visual material.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
63, where the recorded material is in the form of human speech.
- 275 With deactivation during setting:**  
This subclass is indented under subclass 243. Subject matter including means to disengage the striking means from other time indicators, such as hands, while setting those indicators.
- 276 CASES:**  
This subclass is indented under the class definition. Subject matter which includes specific means for inclosing or containing the works of a timepiece.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
88, for chronological timepieces with significant casing structure.
- SEE OR SEARCH CLASS:  
206, Special Receptacle or Package, subclasses 301+ for timepiece shipping or storage cases.  
224, Package and Article Carriers, subclasses 152 and 164-180 for timepiece carriers, e.g., watch bracelet.  
248, Supports, subclasses 114+ for external supports for timepieces.
- 277 Adaptable:**  
This subclass is indented under subclass 276. Subject matter including means to increase the modes of utility of a timepiece.
- (1) Note. For example, a case with means allowing a timepiece to be used either as a wristwatch or a wall clock.
- 278 Combined with disparate device:**  
This subclass is indented under subclass 276. Subject matter including an additional device having a function other than that of keeping or measuring time.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
10, for timepieces combined with disparate devices.
- 279 Ring:**  
This subclass is indented under subclass 278. Subject matter wherein the device is an article of jewelry, generally worn on a finger.

- SEE OR SEARCH CLASS:  
63, Jewelry, subclasses 1.1+ for combinations of rings with timepieces.
- 280 Of particular material:**  
This subclass is indented under subclass 276. Subject matter wherein the case means is comprised of one or more significant substances.
- 281 Wrist worn:**  
This subclass is indented under subclass 276. Subject matter including means designed for carrying the case upon the wrist of a user.
- 282 With band or bracelet details:**  
This subclass is indented under subclass 281. Subject matter including significant details of the structure of the means for attaching the case to the wrist of the wearer.
- SEE OR SEARCH CLASS:  
63, Jewelry, subclasses 3+ and 21+ for bracelets, per se, and watch and chain attachments.
- 283 With a cover:**  
This subclass is indented under subclass 281. Subject matter including means to envelope or screen the front or dial opening portion of the case.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
309+, for timepiece case front or back details.
- 284 With tubular shape:**  
This subclass is indented under subclass 276. Subject matter wherein the case is cylindrical in form and usually greater in length than in diameter.
- 285 With ornamentation:**  
This subclass is indented under subclass 276. Subject matter including decorative attachments or details used to enhance the appearance of the case.
- 286 With protection means:**  
This subclass is indented under subclass 276. Subject matter including means associated with the case to prevent injury or damage to the timepiece.
- 287 Shock absorbing:**  
This subclass is indented under subclass 286. Subject matter including means to lessen the effects of a blow or an impact to the case.
- 288 For crown or stem:**  
This subclass is indented under subclass 286. Subject matter including protection means for winding or setting knob and shaft which protrudes from the case.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
306+, for pendant crown or stem details.  
308, for timepiece cases with crown or stem details.  
319+, for timepiece crown or stem details, per se.
- 289 By waterproofing:**  
This subclass is indented under subclass 288. Subject matter including means to render the crown or stem impervious to water.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
291+, for timepiece case waterproofing, per se.
- 290 Pushbutton stem type:**  
This subclass is indented under subclass 289. Subject matter wherein the crown or stem is a pushbutton.
- 291 Waterproofing:**  
This subclass is indented under subclass 286. Subject matter including means to render the case impervious to water.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
289+, for timepiece case crown or stem waterproofing.
- 292 Noncircular-type case:**  
This subclass is indented under subclass 291. Subject matter wherein the shape of the case is not round.
- 293 Antimagnetic shielding:**  
This subclass is indented under subclass 286. Subject matter including means to protect the case or its works from magnetic influence.

- 294 With bezel or crystal details:**  
This subclass is indented under subclass 276. Subject matter comprising characteristics of an internally grooved ring or rim for holding a rigid, transparent cover over the face of a timepiece or details of the rigid, transparent cover.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
314, for dial or sash securing means.
- SEE OR SEARCH CLASS:  
29, Metal Working, subclass 807 for means for mounting a crystal to a watch or clock.
- 295 Of bezel only:**  
This subclass is indented under subclass 294. Subject matter including only the characteristics of the internally grooved ring or rim for holding the crystal.
- 296 Of crystal only:**  
This subclass is indented under subclass 294. Subject matter including only the characteristics of the rigid, transparent cover which fits into the bezel.
- 297 With details of center:**  
This subclass is indented under subclass 276. Subject matter comprising characteristics of the central movement-holding ring.
- 298 Integral to front or back:**  
This subclass is indented under subclass 297. Subject matter wherein the central movement-holding ring is a part of the front or back of a timepiece.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
309+, for timepiece cases with front or back details.
- 299 With movement ring details:**  
This subclass is indented under subclass 276. Subject matter comprising characteristics of rings in the cases which are designed and designated to hold the movement of a timepiece.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
300, for means to secure a timepiece movement within a case.
- 300 With movement securing means:**  
This subclass is indented under subclass 276. Subject matter comprising means to fasten the movement to the case.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
299, for rings which hold a movement within a case.
- 301 With pendant details:**  
This subclass is indented under subclass 276. Subject matter relating to the post attached to the case center, which receives the stem and bow and any attachments (e.g., chain, clip, etc.) thereto.
- 302 Bow:**  
This subclass is indented under subclass 301. Subject matter wherein affixed to the pendant is a ring generally used to suspend the timepiece, for example, as by a chain inserted through the ring and worn about the neck of the timepiece user.
- 303 Fastener:**  
This subclass is indented under subclass 302. Subject matter including means to attach the bow to the pendant.
- 304 Pin or screw:**  
This subclass is indented under subclass 303. Subject matter wherein the fastening means employs a pin or screw.
- 305 Sleeve:**  
This subclass is indented under subclass 303. Subject matter wherein the fastening means employs a tubular element to fit over a rod or the like.
- 306 Crown or stem:**  
This subclass is indented under subclass 301. Subject matter including the winding or setting knob and shaft which protrudes from the pendant.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
288+, for timepiece cases with protection for their crowns or stems.  
308, for timepiece case crown or stem details.  
319+, for timepiece crown or stem details, per se.
- 307 Fastener:**  
This subclass is indented under subclass 306. Subject matter including means to attach the crown or stem to the pendant.
- 308 With crown or stem details:**  
This subclass is indented under subclass 276. Subject matter including the winding or setting knob and shaft which protrudes from the case.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
288+, for protection means for timepiece crowns or stems.  
306+, for timepiece pendant crown or stem details.  
319+, for timepiece crown or stem details, per se.
- 309 With front or back details:**  
This subclass is indented under subclass 276. Subject matter comprising characteristics of the front or rear portions of a timepiece case.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
294+, for timepiece case bezel or crystal details.
- 310 Of screw-threading to case center:**  
This subclass is indented under subclass 309. Subject matter comprising front or back means for screwing the front or back to the central movement-holding ring.
- 311 Of opening spring:**  
This subclass is indented under subclass 309. Subject matter relating to spring means by which the front or back of the case is opened.
- 312 Cover connection:**  
This subclass is indented under subclass 311. Subject matter including means which join in the opening spring to the cover.
- 313 Of hinge connection:**  
This subclass is indented under subclass 309. Subject matter relating to the movable joint whereby the front or back of the case is united to the center.
- 314 With dial or sash securing means:**  
This subclass is indented under subclass 276. Subject matter including means for attaching the dial or dial holding ring to the case.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
228+, for timepiece dial details, per se.  
294+, for timepiece cases with bezel or crystal details.
- 315 With alarm or striking attachment:**  
This subclass is indented under subclass 276. Subject matter wherein audio or visual signaling means is fastened to the case.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
243+, for timepiece signalling means, per se.
- 316 With support details:**  
This subclass is indented under subclass 276. Subject matter comprising details of the means to hold up or bear the weight of the case and its contents.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
88, for chronological timepieces with significant case support structure.
- 317 Base:**  
This subclass is indented under subclass 316. Subject matter wherein the support means are connected to or a part of the bottom of the case.
- 318 PLATE DETAILS:**  
This subclass is indented under the class definition. Subject matter relating to the frame or bridge to which the movement or works are secured.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
88, for significant chronological timepiece mounting support structure.

- 299, and 300, for movement securing means with timepiece casing means.
- 319 CROWN OR STEM DETAILS:**  
This subclass is indented under the class definition. Subject matter including particular details of the winding or setting knob and/or shaft which protrudes from the timepiece.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
146, for mainspring stem winding and setting; and see search notes thereunder.
- 320 Switch or detent:**  
This subclass is indented under subclass 319. Subject matter including means to hold or lock the crown or stem into more than one position.
- 321 Electrical:**  
This subclass is indented under subclass 320. Subject matter wherein each position of the crown or stem causes an electrical circuit to be completed.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
187+, for timepiece regulation by setting with an electrical switch.
- 322 ARBOR AND PINION DETAILS:**  
This subclass is indented under the class definition. Subject matter comprising particular details of timepiece shaft and cogwheel arrangements.
- SEE OR SEARCH CLASS:  
29, Metal Working, subclasses 231+ for assembling or disassembling of timepiece arbors and pinions.
- 323 CANNON PINION DETAILS:**  
This subclass is indented under the class definition. Subject matter comprising particular details of a pinion frictionally placed on the center arbor by which time and dial trains are connected and having a long boss or pipe to which the minute-hand is attached.
- 324 STAFF AND BEARING DETAILS:**  
This subclass is indented under the class definition. Subject matter comprising arbors, wheel spindles, or axles, and bearings therefor.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
143, for mainspring with a mainwheel on an arbor.
- 325 Balance:**  
This subclass is indented under subclass 324. Subject matter wherein the staff is a balance wheel staff.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
130+, for balance shafts carrying impulse receiving means.
- 326 For protection (e.g., shock absorbing):**  
This subclass is indented under subclass 325. Subject matter comprising means for cushioning, or otherwise safeguarding parts of the timepiece associated with the balance staff and bearing.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
141, for timepiece mainsprings with protection means.  
286+, for timepiece cases with protection means.
- SEE OR SEARCH CLASS:  
206, Special Receptacle or Package, subclasses 301+ for protective packaging of timepieces for shipment or storage.
- 327 MISCELLANEOUS:**  
This subclass is indented under the class definition. Subject matter not elsewhere classifiable.
- END