

# CPC COOPERATIVE PATENT CLASSIFICATION

## G PHYSICS (NOTES omitted)

### INSTRUMENTS

## G04 HOROLOGY

## G04D APPARATUS OR TOOLS SPECIALLY DESIGNED FOR MAKING OR MAINTAINING CLOCKS OR WATCHES

### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

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|---------------|--|---------------|---|
| <b>1/00</b>   | <b>Gripping, holding, or supporting devices</b> {(stands in general <a href="#">F16M</a> ; for instruments <a href="#">G01D 11/30</a> , <a href="#">B01L</a> )}  | <b>1/026</b>  | . . {Clamps for holding bearing jewels (machines for setting bearing jewels <a href="#">G04D 3/0002</a> )}  |
| <b>1/0007</b> | . {for assembly entirely by hand}  | <b>1/027</b>  | . . {Hand tools for gripping or holding by magnetic means}  |
| <b>1/0014</b> | . . {Workbenches, supports; Workbenches provided with suction devices; for dust; Illumination}   | <b>1/028</b>  | . . {Hand tools for gripping or holding by pneumatic means}   |
| <b>1/0021</b> | . . {Supporting means facilitating assembly and mechanisation, e.g. magazines for components (machines for assembly <a href="#">G04D 1/0071</a> ; supports in general <a href="#">G04D 1/06</a> )}   | <b>1/04</b>   | . Tools for setting springs   |
| <b>1/0028</b> | . . {Screwdrivers (screwdrivers in general <a href="#">B25B 15/00</a> )}   | <b>1/041</b>  | . . {for springs of driving mechanisms (machines therefor <a href="#">G04D 3/0007</a> )}  |
| <b>1/0035</b> | . . . {with power source for driving the screwdriver}  | <b>1/042</b>  | . . {for coil springs in regulating mechanisms (machines therefor <a href="#">G04D 3/0041</a> )}  |
| <b>1/0042</b> | . . {tools for setting, riveting or pressing, e.g. nippers for this purpose (machines therefor <a href="#">G04D 3/042</a> , <a href="#">G04D 3/045</a> , <a href="#">G04D 3/047</a> )}   | <b>1/044</b>  | . . . {for working the ends (machines therefor <a href="#">G04D 3/0041</a> )}   |
| <b>1/005</b>  | . {for non-automatic assembly, with automatic transport between workbenches}   | <b>1/045</b>  | . . . {for fastening the ends (machines therefor <a href="#">G04D 3/0007</a> , <a href="#">G04D 3/0041</a> )}   |
| <b>1/0057</b> | . . {Conveyor belts or chains (in general <a href="#">B65G</a> )}  | <b>1/047</b>  | . . . . {on the coil roll}  |
| <b>1/0064</b> | . . {Turntables or plates (carousels) (in general <a href="#">B65G 47/00</a> )}  | <b>1/048</b>  | . . . . {on the coil bobbin}  |
| <b>1/0071</b> | . {for totally automated assembly}   | <b>1/06</b>   | . Supporting devices for clockworks or parts of time-pieces {(for automatic assembly <a href="#">G04D 1/0021</a> )}   |
| <b>1/0078</b> | . {Automated gripping means (hand-operated gripping means <a href="#">G04D 1/02</a> )}   | <b>1/063</b>  | . . {provided with a pick-up means, e.g. microphone (measuring and control means for comparison with a standard frequency <a href="#">G04D 7/12</a> )}                                    |
| <b>1/0085</b> | . . {with pneumatic holding means (hand tools with pneumatic means <a href="#">G04D 1/02</a> )}  | <b>1/066</b>  | . . {Packaging and boxes for transport (packaging for small items, packaging for special items <a href="#">B65D</a> )}  |
| <b>1/0092</b> | . {Devices for positioning and sorting of the components (sorting and positioning in general <a href="#">B23Q</a> )}   | <b>1/08</b>   | . Tools for setting or removing hands {(machines therefor <a href="#">G04D 3/0046</a> )}  |
| <b>1/02</b>   | . Tweezers; Vice clamps or other special hand tools for watchmakers {( <a href="#">G04D 1/04</a> , <a href="#">G04D 1/08</a> , <a href="#">G04D 1/10</a> take precedence; vices <a href="#">B25B</a> ; devices for setting bearing jewels and parts thereof <a href="#">G04D 3/04</a> ; devices for setting watch glasses <a href="#">G04D 3/06</a> )} | <b>1/10</b>   | . Devices for opening or closing watch bottoms or covers {(machines therefor <a href="#">G04D 3/00</a> )}   |
| <b>1/021</b>  | . . {Tweezers (tweezers for medical purposes <a href="#">A61B</a> ; setting tools <a href="#">B41B 1/00</a> )}   | <b>3/00</b>   | <b>Watchmakers' or watch-repairers' machines or tools for working materials</b> {(metal working in general class <a href="#">B23</a> )}   |
| <b>1/022</b>  | . . {Universal nippers (nippers for setting watch glasses <a href="#">G04D 3/067</a> )}  | <b>3/0002</b> | . {for mechanical working other than with a lathe (lathes for watchmakers <a href="#">G04D 3/02</a> )}  |
| <b>1/023</b>  | . . {Revolving-head nippers (jaw plates for latches <a href="#">G04D 3/0218</a> )}   | <b>3/0005</b> | . . {for parts of driving means}  |
| <b>1/025</b>  | . . {Hand screws}  | <b>3/0007</b> | . . . {for springs (springs in general <a href="#">B21F</a> ; mainspring construction <a href="#">G04B 1/14</a> ; springs for the regulating mechanism see <a href="#">G04D 3/0041</a> )} |
|               |  | <b>3/001</b>  | . . . {for spring barrels (construction of spring barrels <a href="#">G04B 1/16</a> , <a href="#">G04B 1/18</a> )}  |
|               |  | <b>3/0012</b> | . . {for parts of the winding-up mechanism, e.g. for winding axles, crowns (construction thereof <a href="#">G04B 3/00</a> , <a href="#">G04B 5/00</a> )}                                 |

- 3/0015 . . {for components of the pawl construction, stop clicks, clutches (construction thereof [G04B 11/00](#))}
- 3/0017 . . {for components of gearworks (construction thereof [G04B 13/00](#))}
- 3/002 . . . {for gear wheels or gears}
- 3/0023 . . . {for axles, sleeves}
- 3/0025 . . . {for axletaps, e.g. for grinding or polishing thereof (on a lathe [G04D 3/02](#))}
- 3/0028 . . {for components of the escape mechanism (construction thereof [G04B 15/00](#))}
- 3/003 . . . {for levers}
- 3/0033 . . . {for lever wheels}
- 3/0035 . . {for components of the regulating mechanism}
- 3/0038 . . . {for balances (construction thereof [G04B 17/063](#))}
- 3/0041 . . . {for coil-springs (coil-springs in general [B21F](#); springs for the driving mechanism [G04D 3/0007](#))}
- 3/0043 . . {for components of the time-indicating mechanisms (construction thereof [G04B 19/00](#))}
- 3/0046 . . . {for hands (construction thereof [G04B 19/00](#))}
- 3/0048 . . . {for dials (construction thereof [G04B 19/10](#), [G04B 19/12](#))}
- 3/0051 . . . {for time markers}
- 3/0053 . . {for framework components (construction thereof [G04B 29/00](#))}
- 3/0056 . . {for bearing components (construction thereof [G04B 31/00](#))}
- 3/0058 . . . {for bearing jewels (machines for boring through stones [B28D](#); for diamonds [B24B](#); diamond polishing [B24B 9/16](#); manufacture of drawing stones [B23P 5/00](#); setting of industrial stones [B23P 15/24](#))}
- 3/0061 . . {for components for protecting the mechanism against external influences (construction thereof [G04B 37/00](#), [G04B 43/00](#))}
- 3/0064 . . . {for cases}
- 3/0066 . . . {for the fastening means of the case or bracelet (construction thereof [G04B 37/1486](#))}
- 3/0069 . {for working with non-mechanical means, e.g. chemical, electrochemical, metallising, vapourising; with electron beams, laser beams}
- 3/0071 . . {for bearing components}
- 3/0074 . {for treatment of the material, e.g. surface treatment}
- 3/0076 . . {for components of driving mechanisms, e.g. mainspring}
- 3/0079 . . {for gearwork components}
- 3/0082 . . . {for gear wheels or gears}
- 3/0084 . . . {for axles, sleeves}
- 3/0087 . . {for components of the escapement mechanism, e.g. lever escapement, escape wheel}
- 3/0089 . . {for components of the regulating mechanism, e.g. coil springs}
- 3/0092 . . {for components of the time-indicating mechanism, e.g. dials}
- 3/0094 . . {for bearing components}
- 3/0097 . . {for components of the means protecting the mechanism against external influences, e.g. cases}
- 3/02 . . Lathes, with one or more supports; Burnishing machines, with one or more supports {(metal lathes [B23B](#); automatic lathes [B23B](#); grinding and polishing in general class [B24](#))}
- 3/0209 . . {Components}
- 3/0218 . . . {Jaw-plates, revolving-head nippers}
- 3/0227 . . {for the manufacture of special components for clockworks}
- 3/0236 . . . {for gearwork components}
- 3/0245 . . . . {for gear wheels or gears}
- 3/0254 . . . . {for axles, sleeves}
- 3/0263 . . . . {for axle taps}
- 3/0272 . . . {for components of the time-indicating mechanism, e.g. dials}
- 3/0281 . . . {for bearing components}
- 3/029 . . . {for components of the means protecting the mechanism from external influences, e.g. cases}
- 3/04 . . Devices for placing bearing jewels, bearing sleeves, or the like in position {(fixing jewels [A44C 17/04](#); tools for assembling and taking apart gear wheels and bearing components [B25B](#); machines for the manufacture of bearing jewels and components [G04D 3/0002](#))}
- 3/042 . . {for bearing jewels (pressing nippers and hand tools [G04D 1/0042](#))}
- 3/045 . . {for lever, Impulse-pin (adjustment of the escapement [G04D 7/06](#))}
- 3/047 . . {for the coil rolls or bobbins}
- 3/06 . . Devices for shaping or setting watch glasses {(cutting watch glasses [C03B 33/04](#); grinding or working of spectacle lenses and lenses [B24B](#); working plastic materials in general [B29](#))}
- 3/062 . . {Shaping without chipping away, e.g. by hot pressing or by punching out the whole piece from a plate}
- 3/065 . . {Shaping by removing material, e.g. cutting out from a plate, milling the edges}
- 3/067 . . {Setting or taking apart, whereby a temporary deformation of the glass may take place}
- 3/08 . . Machines or apparatus for cleaning
- 3/083 . . {whereby the components to be cleaned are placed in a container}
- 3/086 . . . {whereby the container rotates in a cleaning fluid}
- 5/00 Oiling devices; Special lubricant containers for watchmakers** {(bearings constructed with regard to oiling of the clockwork [G04B 31/08](#); oilcans for lubricating in general [F16N 3/04](#))}
- 5/005 . {Oilcans and other hand tools for lubricating special parts of the clockwork mechanism}
- 7/00 Measuring, counting, calibrating, testing or regulating apparatus** {(measuring devices and calibers in general [G01B](#); counters in general [H03K](#))}
- 7/001 . {Purely mechanical measuring and testing apparatus}
- 7/002 . {Electrical measuring and testing apparatus}
- 7/003 . . {for electric or electronic clocks}
- 7/004 . {Optical measuring and testing apparatus}
- 7/005 . {Counters for small components, e.g. bearing jewels}

## G04D

- 7/006 . {Testing apparatus for complete clockworks with regard to external influences or general good working}
- 7/007 . . {with regard to the sealing of the case}
- 7/008 . . {with regard to the reaction to shocks}
- 7/009 . . {with regard to the functioning of the automatic winding-up device}
- 7/02 . for mainsprings
- 7/04 . for gearwork, {(e.g. optical control of gear wheels; optical control in general [G01B](#), [G01B 9/08](#))}
- 7/06 . for escapements
- 7/08 . for balance wheels
- 7/081 . . {for adjusting the fellow or the shafts (adjustment of the gear wheels [G04D 7/04](#))}
- 7/082 . . {for balancing}
- 7/084 . . . {by setting adjustable elements, e.g. balance wheel screws}
- 7/085 . . . {by removing material from the balance wheel itself}
- 7/087 . . . . {Automatic devices therefor (balancing and loading or removing carried out automatically)}
- 7/088 . . . {by loading the balance wheel itself with material}
- 7/10 . for hairsprings {of balances}
- 7/12 . Timing devices for clocks or watches for comparing the rate of the oscillating member with a standard {(supporting devices for clocks with built-in recording apparatus [G04D 1/063](#); measuring short time intervals [G04F 10/00](#); frequency measuring in general [H04B](#), [G01R](#))}
- 7/1207 . . {only for measuring}
- 7/1214 . . . {for complete clockworks}
- 7/1221 . . . . {with recording, e.g. vibrograph}
- 7/1228 . . . . . {Devices for facilitating the reading or the interpretation of the recording}
- 7/1235 . . . {for the control mechanism only (found from outside the clockwork)}
- 7/1242 . . . . {for measuring amplitude}
- 7/125 . . . . {for measuring frequency}
- 7/1257 . . {wherein further adjustment devices are present}
- 7/1264 . . . {for complete clockworks}
- 7/1271 . . . {for the control mechanism only (from outside the clockwork)}
- 7/1278 . . . . {whereby the adjustment device works on the compass}
- 7/1285 . . . . {whereby the adjustment device works on the mainspring}
- 7/1292 . . . . {whereby the adjustment device works on the balance wheel}
- 9/00 Demagnetising devices**
- 99/00 Subject matter not provided for in other groups of this subclass**