

CPC COOPERATIVE PATENT CLASSIFICATION

G PHYSICS (NOTES omitted)

INSTRUMENTS

G05 CONTROLLING; REGULATING (NOTES omitted)

G05G CONTROL DEVICES OR SYSTEMS INsofar AS CHARACTERISED BY MECHANICAL FEATURES ONLY ("Bowden" or like mechanisms [F16C 1/10](#); gearings or mechanisms not peculiar to this purpose [F16H](#); speed changing or reversing mechanisms for gearings conveying rotary motion [F16H 59/00](#) - [F16H 63/00](#))

NOTES

1. This subclass covers:
 - members of general applicability for mechanical control;
 - mechanical systems for moving members to one or more definite settings.
2. Systems peculiar to the control of particular machines or apparatus provided for in a single other class are classified in the relevant class for such machines or apparatus.

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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| 1/00 | Controlling members, e.g. knobs or handles; Assemblies or arrangements thereof; Indicating position of controlling members ({means for preventing, limiting or returning the movements of parts of a control mechanism G05G 5/00 ; providing feel, e.g. means to create a counterforce G05G 5/03 ; specially adapted for programme control G05G 21/00 ; vibration damping G05G 25/02 ;} joysticks G05G 9/04 ; steering wheels for motor vehicles B62D) | 1/08 | • Controlling members for hand actuation by rotary movement, e.g. hand wheels |
| | | 1/082 | • • {having safety devices, e.g. means for disengaging the control member from the actuated member} |
| | | 1/085 | • • {Crank handles (G05G 1/082 takes precedence)} |
| | | 1/087 | • • {retractable; Flush control knobs} |
| | | 1/10 | • • Details, e.g. of discs, knobs, wheels or handles {(G05G 1/085 takes precedence)} |
| | | 1/105 | • • • {comprising arrangements for illumination} |
| | | 1/12 | • • • Means for securing the members on rotatable spindles or the like |
| | | 1/30 | • Controlling members actuated by foot |
| | | 1/305 | • • {Compound pedal co-operating with two or more controlled members} |
| | | 1/32 | • • with means to prevent injury |
| 1/01 | • Arrangements of two or more controlling members with respect to one another (double foot control, e.g. for instruction vehicles G05G 1/34 ; mounting units comprising an assembly with two or more pedals G05G 1/36) | 1/323 | • • • means disconnecting the connection between pedal and controlled member, e.g. by breaking or bending the connecting rod |
| | | 1/327 | • • • means disconnecting the pedal from its hinge or support, e.g. by breaking or bending the support |
| 1/015 | • Arrangements for indicating the position of a controlling member (means for continuously detecting pedal position G05G 1/38 ; means for detecting position through tactile feedback G05G 5/03) | 1/34 | • • Double foot controls, e.g. for instruction vehicles |
| | | 1/36 | • • Mounting units comprising an assembly of two or more pedals, e.g. for facilitating mounting |
| 1/02 | • Controlling members for hand actuation by linear movement, e.g. push buttons | 1/38 | • • comprising means to continuously detect pedal position |
| 1/025 | • • {actuated by sliding movement} | 1/40 | • • adjustable |
| 1/04 | • Controlling members for hand actuation by pivoting movement, e.g. levers | 1/405 | • • • infinitely adjustable |
| | | 1/42 | • • non-pivoting, e.g. sliding |
| 1/06 | • • Details of their grip parts {(G05G 1/10 takes precedence)} | 1/44 | • • pivoting |
| | | 1/445 | • • • about a central fulcrum |

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| 1/46 | • • Means, e.g. links, for connecting the pedal to the controlled unit | 5/16 | • • • by friction |
| 1/48 | • • Non-slip pedal treads; Pedal extensions or attachments characterised by mechanical features only | 5/18 | • • • by positive interengagement, e.g. by a pawl |
| 1/483 | • • • Non-slip treads; Pedal extensions or attachments characterised by mechanical features only | 5/20 | • • by locking a quadrant, rod, or the like carried by the member |
| 1/487 | • • • Pedal extensions | 5/22 | • • • by friction |
| 1/50 | • • Manufacturing of pedals; Pedals characterised by the material used | 5/24 | • • • by positive interengagement, e.g. by a pawl |
| 1/503 | • • • {Controlling members for hand-actuation} | 5/26 | • • by other means than a quadrant, rod, or the like |
| 1/506 | • • • {Controlling members for foot-actuation} | 5/28 | • for preventing unauthorised access to the controlling member or its movement to a command position |
| 1/52 | • Controlling members specially adapted for actuation by other parts of the human body than hand or foot | 7/00 | Manually-actuated control mechanisms provided with one single controlling member co-operating with one single controlled member; Details thereof (controlling members G05G 1/00) |
| 1/54 | • Controlling members specially adapted for actuation by auxiliary operating members or extensions; Operating members or extensions therefor (pedal extensions) | 7/02 | • characterised by special provisions for conveying or converting motion, or for acting at a distance |
| 1/56 | • • Controlling members specially adapted for actuation by keys, screwdrivers or like tools | 7/04 | • • altering the ratio of motion or force between controlling member and controlled member as a function of the position of the controlling member |
| 1/58 | • Rests or guides for relevant parts of the operator's body | 7/06 | • • in which repeated movement of the controlling member produces increments of movement of the controlled member (G05G 7/08 takes precedence) |
| 1/60 | • • Foot rests or foot guides | 7/08 | • • in which repeated movement of the controlling member moves the controlling member through a cycle of distinct positions |
| 1/62 | • • Arm rests | 7/10 | • • specially adapted for remote control (G05G 7/04 - G05G 7/08 take precedence) |
| 3/00 | Controlled members; Assemblies or arrangements thereof (interlocking of controlled members G05G 5/08) | 7/12 | • specially adapted for actuating a member on a system in motion with respect to the controlling member, e.g. on a rotating shaft |
| 5/00 | Means for preventing, limiting or returning the movements of parts of a control mechanism, e.g. locking controlling member (G05G 17/00 takes precedence) | 7/14 | • characterised by means for delaying initiation of, or making more gradual throughout, the movement of the controlled member in response to a given input from the controlling member, e.g. by providing lost motion in the command train |
| 5/005 | • {for preventing unintentional use of a control mechanism (G05G 5/28 takes precedence)} | 7/16 | • Special provisions for reducing the effect of slight relative movement between supports of the mechanism, e.g. resulting from resilient mounting of a controlled mechanism |
| 5/02 | • Means preventing undesired movements of a controlling member which can be moved in two or more separate steps or ways, e.g. restricting to a stepwise movement or to a particular sequence of movements (G05G 5/28 takes precedence) | 9/00 | Manually-actuated control mechanisms provided with one single controlling member co-operating with two or more controlled members, e.g. selectively, simultaneously |
| 5/03 | • Means for enhancing the operator's awareness of arrival of the controlling member at a command or datum position; Providing feel, e.g. means for creating a counterforce (arrangements for indicating the position of the controlling member G05G 1/015) | 9/02 | • the controlling member being movable in different independent ways, movement in each individual way actuating one controlled member only |
| 5/04 | • Stops for limiting movement of members, e.g. adjustable stop (G05G 5/03, G05G 5/05, G05G 5/28 take precedence) | 9/04 | • • in which movement in two or more ways can occur simultaneously |
| 5/05 | • Means for returning or tending to return controlling members to an inoperative or neutral position, e.g. by providing return springs or resilient end-stops (G05G 5/28 takes precedence) | 9/047 | • • • the controlling member being movable by hand about orthogonal axes, e.g. joysticks {(for switches H01H 25/04)} |
| 5/06 | • for holding members in one or a limited number of definite positions only ({ G05G 5/005}, G05G 5/03, G05G 5/05, G05G 5/28 take precedence) | 2009/04703 | • • • • {Mounting of controlling member} |
| 5/065 | • • {using a spring-loaded ball} | 2009/04707 | • • • • {with ball joint} |
| 5/08 | • • Interlocking of members, e.g. locking member in a particular position before or during the movement of another member | 2009/04711 | • • • • {with substantially hemispherical bearing part forced into engagement, e.g. by a spring} |
| 5/12 | • for holding members in an indefinite number of positions, e.g. by a toothed quadrant (G05G 5/28 takes precedence) | 2009/04714 | • • • • {with orthogonal axes} |
| 5/14 | • • by locking a member with respect to a fixed quadrant, rod, or the like | 2009/04718 | • • • • {with cardan or gimbal type joint} |
| | | 2009/04722 | • • • • {elastic, e.g. flexible shaft} |
| | | 2009/04725 | • • • • {with coil spring} |
| | | 2009/04729 | • • • • {melastomeric} |
| | | 2009/04733 | • • • • {with a joint having a nutating disc, e.g. forced by a spring} |
| | | 9/04737 | • • • • {with six degrees of freedom} |

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| 2009/0474 | {characterised by means converting mechanical movement into electric signals} | 15/02 | . due to alteration of the sense of movement of a member |
| 2009/04744 | {Switches} | 15/04 | . due to distance or angle travelled by a member |
| 2009/04748 | {Position sensor for rotary movement, e.g. potentiometer} | 15/06 | . due to the speed of rotation or of bodily movement of a member, e.g. passing an upper or lower limit thereof (speedometers G01P) |
| 2009/04751 | {Position sensor for linear movement} | 15/08 | . due to the load or torque on a member, e.g. if exceeding a predetermined value thereof |
| 2009/04755 | {Magnetic sensor, e.g. hall generator, pick-up coil} | 17/00 | Mechanical devices for moving a member after being released; Trip or release mechanisms characterised thereby |
| 2009/04759 | {Light-sensitive detector, e.g. photoelectric} | 19/00 | Servo-mechanisms with follow-up action, e.g. occurring in steps |
| 2009/04762 | {Force transducer, e.g. strain gauge} | 21/00 | Mechanical apparatus for control of a series of operations, i.e. programme control, e.g. involving a set of cams (G05G 5/02 takes precedence) |
| 2009/04766 | {providing feel, e.g. indexing means, means to create counterforce} | 23/00 | Means for ensuring the correct positioning of parts of control mechanisms, e.g. for taking-up play |
| 2009/0477 | {holding the member in a number of definite positions} | 23/02 | . self-adjusting |
| 2009/04774 | {with additional switches or sensors on the handle} | 25/00 | Other details or appurtenances of control mechanisms, e.g. supporting intermediate members elastically |
| 2009/04777 | {with additional push or pull action on the handle} | 25/02 | . Inhibiting the generation or transmission of noise {(suppression of noise or vibrations in selector apparatus for gears F16H 59/0208)} |
| 2009/04781 | {with additional rotation of the controlling member} | 25/04 | . Sealing against entry of dust, weather or the like {(in selector apparatus for gears, F16H 59/0213)} |
| NOTE | | 2505/00 | Means for preventing, limiting or returning the movements of parts of a control mechanism, e.g. locking controlling member |
| Provisional indexing codes related to scheme of trilateral project T021 | | 2700/00 | Control mechanisms or elements therefor applying a mechanical movement |
| 9/04785 | {the controlling member being the operating part of a switch arrangement} | 2700/02 | . Means for regulating or adjusting control mechanisms, e.g. devices for automatic adjustment |
| 9/04788 | {comprising additional control elements} | 2700/04 | . Control mechanisms limiting amplitude or adjusting datum position |
| 9/04792 | {for rotary control around the axis of the controlling member} | 2700/06 | . . Control mechanisms for holding members in a number of positions comprising a device to limit the control range |
| 9/04796 | {for rectilinear control along the axis of the controlling member} | 2700/08 | . . Control mechanisms for locking members in one or more positions |
| 9/053 | the controlling member comprising a ball {(graph-reading using a tracing ball or mouse G06F 3/033)} | 2700/10 | . . Control mechanisms for locking or at least for blocking a member in one position out of a number of several positions |
| 9/06 | . the controlled members being actuated successively by repeated movement of the controlling member | 2700/12 | . Control mechanisms with one controlling member and one controlled member |
| 9/08 | . the controlled members being actuated successively by progressive movement of the controlling member {(single lever throttle and clutch control for marine engines B63H 21/213)} | 2700/14 | . . with one elastic element as essential part, e.g. elastic components as a part of an actuating mechanism |
| 9/085 | . . {the controlling member acting on a set of cams or slot cams} | 2700/16 | . . Mechanisms for conveying motion or signals for or in relation with control mechanisms |
| 9/10 | . with preselection and subsequent movement of each controlled member by movement of the controlling member in two different ways, e.g. guided by a shift gate | 2700/18 | . . Systems wherein the control element may be placed in two or more positions |
| 11/00 | Manually-actuated control mechanisms provided with two or more controlling members co-operating with one single controlled member | 2700/20 | . Control mechanisms not otherwise provided for |
| 13/00 | Manually-actuated control mechanisms provided with two or more controlling members and also two or more controlled members (interlocking G05G 5/08) | 2700/22 | . Mechanisms linking plurality of controlling or controlled members |
| 13/02 | . with separate controlling members for preselection and shifting of controlled members | 2700/24 | . . Locking controlled members of selectively controlled mechanisms |
| 15/00 | Mechanical devices for initiating a movement automatically due to a specific cause | | |
| 15/002 | . {due to an abnormal functioning of the controlled apparatus (if speed is abnormal G05G 15/06)} | | |
| 15/005 | . {due to a dangerous situation for the operator} | | |
| 15/007 | . {due to an exerted pressure} | | |

G05G

- 2700/26 . . with a control member moving selectively or simultaneously the controlled members
- 2700/28 . . . with a control member that is moved for preselection in another direction than for final actuating
- 2700/30 . . . without preselection or differentiation between selection and actuating, e.g. control members with a fix control sequence, after a determined advance cycle, in which the control device comprises cams actuating separately the controlled members
- 2700/32 . . with plurality of control members, e.g. preselection and actuating members actuating several controlled members