

CPC COOPERATIVE PATENT CLASSIFICATION

G PHYSICS (NOTES omitted)

INSTRUMENTS

G09 EDUCATION; CRYPTOGRAPHY; DISPLAY; ADVERTISING; SEALS

G09B EDUCATIONAL OR DEMONSTRATION APPLIANCES; APPLIANCES FOR TEACHING, OR COMMUNICATING WITH, THE BLIND, DEAF OR MUTE; MODELS; PLANETARIA; GLOBES; MAPS; DIAGRAMS (devices for psychotechnics or for testing reaction times [A61B 5/16](#); games, sports, amusements [A63](#); projectors, projector screens [G03B](#))

NOTES

1. This subclass covers:
 - simulators regarded as teaching or training devices, which is the case if they give perceptible sensations having a likeness to the sensations a student would experience in reality in response to actions taken by him;
 - models of buildings, installations, or the like.
2. This subclass does not cover:
 - simulators which demonstrate, by means involving computing, the function of apparatus or of a system, which are covered by class [G06](#), if no provision exists elsewhere
 - components of simulators, if identical with real devices or machines, which are covered by the relevant subclasses for these devices or machines (and not by class [G09](#)).

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 | Manually or mechanically operated educational appliances using elements forming, or bearing, symbols, signs, pictures, or the like which are arranged or adapted to be arranged in one or more particular ways (puzzle-games A63F 9/00 ; advertising or displaying in general G09F) | 1/26 | . . . the elements being arranged in fan form |
| | | 1/28 | . . . the elements being slidable |
| | | 1/30 | . . wherein the elements are adapted to be arranged in co-operation with the support to form symbols (without special support G09B 1/40) |
| 1/02 | . and having a support carrying or adapted to carry the elements | 1/32 | . comprising elements to be used without a special support |
| 1/04 | . . the elements each bearing a single symbol or a single combination of symbols | 1/325 | . . {the elements comprising interacting electronic components} |
| 1/06 | . . . and being attachable to, or mounted on, the support | 1/34 | . . the elements to be placed loosely in adjacent relationship |
| 1/08 | by means of magnets | 1/36 | . . the elements being connectible by corresponding projections and recesses |
| 1/10 | by means of pins and holes | 1/38 | . . the elements being connectible magnetically |
| 1/12 | by means of ring-like securing elements (sheets temporarily attached together by rings or coils B42F 3/00 , G09B 5/00) | 1/40 | . . to form symbols or signs by appropriate arrangement |
| 1/14 | the elements being slidably mounted on the support | 3/00 | Manually or mechanically operated teaching appliances working with questions and answers (electrically-operated G09B 7/00 ; {e.g. G09B 7/063 } advertising or displaying in general G09F) |
| 1/16 | . . the elements each bearing a plurality of different symbols, signs, or combinations of symbols and signs, only one symbol, sign, or combination thereof, of each element to be used at a time | 3/02 | . of the type wherein the student is expected to construct an answer to the question which is presented or wherein the machine gives an answer to the question presented by a student |
| 1/18 | . . . the elements being rotatable | 3/04 | . . of chart form (masks G09B 17/02) |
| 1/20 | and bearing the symbols on a surface parallel to the axis of rotation | 3/045 | . . . {with invisibly printed correct answer; the answer being rendered visible by special optical means, e.g. filters; mirrors} |
| 1/22 | and bearing the symbols on a surface perpendicular to the axis of rotation | | |
| 1/24 | . . . the elements being in flexible strip form, e.g. endless bands | | |

- 3/06 . . of the multiple-choice answer type, i.e. where a given question is provided with a series of answers and a choice has to be made
- 3/08 . . . of chart form ([having one set of answers common to a plurality of questions G09B 3/12](#))
- 3/085 . . . {with invisibly printed correct answer; the answer being rendered visible by special optical means, e.g. filters; mirrors}
- 3/10 . . wherein one set of answers is common to a plurality of questions
- 3/12 . . . of chart form
- 5/00 Electrically-operated educational appliances**
(working with questions and answers [G09B 7/00](#); simulators [G09B 9/00](#); advertising or displaying in general [G09F](#))
- NOTE**
- Group [G09B 5/08](#) takes precedence over groups [G09B 5/02](#) - [G09B 5/06](#).
- 5/02 . . with visual presentation of the material to be studied, e.g. using film strip
- 5/04 . . with audible presentation of the material to be studied ([reading and recognising printed or written characters G06K 9/00](#); sound recording or reproducing [G11B](#))
- 5/06 . . with both visual and audible presentation of the material to be studied
- 5/062 . . {Combinations of audio and printed presentations, e.g. magnetically striped cards, talking books, magnetic tapes with printed texts thereon}
- 5/065 . . {Combinations of audio and video presentations, e.g. videotapes, videodiscs, television systems}
- 5/067 . . {Combinations of audio and projected visual presentation, e.g. film, slides}
- 5/08 . . providing for individual presentation of information to a plurality of student stations
- 5/10 . . all student stations being capable of presenting the same information simultaneously ([G09B 5/14](#) takes precedence)
- 5/12 . . different stations being capable of presenting different information simultaneously ([G09B 5/14](#) takes precedence)
- 5/125 . . . {the stations being mobile}
- 5/14 . . with provision for individual teacher-student communication
- 7/00 Electrically-operated teaching apparatus or devices working with questions and answers**
(mechanically operated [G09B 3/00](#); computing arrangements [G06F](#))
- 7/02 . . of the type wherein the student is expected to construct an answer to the question which is presented or wherein the machine gives an answer to the question presented by a student
- 7/04 . . characterised by modifying the teaching programme in response to a wrong answer, e.g. repeating the question, supplying a further explanation
- 7/06 . . of the multiple-choice answer-type, i.e. where a given question is provided with a series of answers and a choice has to be made from the answers
- 7/063 . . {with hand-placed probe or plug}
- 7/066 . . {with answer indicating cards, blocks}
- 7/07 . . providing for individual presentation of questions to a plurality of student stations
- 7/073 . . . all student stations being capable of presenting the same questions simultaneously
- 7/077 . . . different stations being capable of presenting different questions simultaneously
- 7/08 . . characterised by modifying the teaching programme in response to a wrong answer, e.g. repeating the question, supplying further information
- 7/10 . . wherein a set of answers is common to a plurality of questions
- 7/12 . . . characterised by modifying the teaching programme in response to a wrong answer, e.g. repeating the question, supplying further information
- 9/00 Simulators for teaching or training purposes**
(for the use of weapons [F41](#); computing aspects [G06](#); {protocols for networked simulations [H04L 29/06034](#)})
- 9/003 . . {for military purposes and tactics}
- 9/006 . . {for locating or ranging of objects}
- 9/02 . . for teaching control of vehicles or other craft
- 9/04 . . for teaching control of land vehicles
- 9/042 . . . providing simulation in a real vehicle ([G09B 9/052](#), [G09B 9/058](#) take precedence)
- 9/048 . . . a model being viewed and manoeuvred from a remote point ([G09B 9/052](#), [G09B 9/058](#) take precedence)
- 9/05 . . . the view from a vehicle being simulated ([G09B 9/052](#), [G09B 9/058](#) take precedence)
- 9/052 . . . characterised by provision for recording or measuring trainee's performance (devices for psychotechnics, e.g. for vehicle drivers [A61B 5/16](#), [A61B 5/18](#))
- 9/058 . . . for teaching control of cycles or motorcycles
- 9/06 . . for teaching control of ships, boats, or other waterborne vehicles
- 9/063 . . . {by using visual displays}
- 9/066 . . . {Sailing; Surfing}
- 9/08 . . for teaching control of aircraft, e.g. Link trainer
- 9/085 . . . {Special purpose teaching, e.g. lighting on water, aerial photography}
- 9/10 . . . with simulated flight- or engine-generated force being applied to aircraft occupant ([G09B 9/28](#) takes precedence)
- 9/12 . . . Motion systems for aircraft simulators
- 9/14 controlled by fluid actuated piston or cylinder ram
- 9/16 . . . Ambient or aircraft conditions simulated or indicated by instrument or alarm
- 9/165 {Condition of cabin, cockpit or pilot's accessories}
- 9/18 Condition of engine or fuel supply
- 9/20 Simulation or indication of aircraft attitude
- 9/203 {for taking-off or landing condition}
- 9/206 {for in-flight condition}
- 9/22 . . . including aircraft sound simulation
- 9/24 . . . including display or recording of simulated flight path
- 9/245 {Simulation of compasses, gyroscopes}
- 9/26 . . . Simulation of radio-navigation
- 9/28 . . . Simulation of stick forces or the like

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| 9/30 | . . . Simulation of view from aircraft | 13/04 | . Devices used in association with a real typewriter, teleprinter, or the like |
| | NOTE | 15/00 | Teaching music (metronomes G04F 5/02) |
| | When classifying in groups G09B 9/301 , G09B 9/302 , G09B 9/304 , G09B 9/305 , classification is also made in other appropriate groups G09B 9/307 , G09B 9/308 , G09B 9/32 , G09B 9/323 , G09B 9/326 , G09B 9/34 , G09B 9/36 , G09B 9/38 if of interest | 15/001 | . {Boards or like means for providing an indication of chords} |
| 9/301 | {by computer-processed or -generated image} | 15/002 | . . {Electrically operated systems} |
| 9/302 | {the image being transformed by computer processing, e.g. updating the image to correspond to the changing point of view} | 15/003 | . . . {with indication of the keys or strings to be played on instruments} |
| 9/304 | {by using a film} | 15/004 | . . {Non-electrically operated systems} |
| 9/305 | {by viewing with a camera a small-scale model of the terrain} | 15/005 | . . . {of the slide type} |
| 9/307 | {by helmet-mounted projector or display (G09B 9/36 takes precedence; optical parts of head-up displays G02B 27/01)} | 15/006 | {with indication of the keys or strings to be played on instruments} |
| 9/308 | {by LCD, gas plasma display or electroluminescent display} | 15/007 | . . . {using disc-shaped boards} |
| 9/32 | by projected image ({ G09B 9/307 , } G09B 9/36 take precedence) | 15/008 | {with indication of the keys or strings to be played on instruments} |
| 9/323 | {the projection screen being made of LCD panels (G09B 9/307 takes precedence)} | 15/009 | . {Transposing devices} |
| 9/326 | {the image being transformed by optical means} | 15/02 | . Boards or like means for providing an indication of notes |
| 9/34 | by cathode-ray screen display ({ G09B 9/307 , } G09B 9/36 take precedence) | 15/023 | . . {Electrically operated} |
| 9/36 | Simulation of night or reduced visibility flight | 15/026 | . . {Non-electrically operated} |
| 9/38 | Simulation of runway outlining or approach lights | 15/04 | . . with sound emitters |
| 9/40 | . . . Simulation of airborne radar | 15/06 | . Devices for exercising or strengthening fingers or arms; Devices for holding fingers or arms in a proper position for playing (for teaching typing G09B 13/00 ; exercising apparatus for developing or strengthening the muscles for physical training A63B 21/00 , A63B 23/00) |
| 9/42 | . . . Aircraft, aircraft simulator or means connected thereto, travelling on the ground or water during simulated flight training | 15/08 | . Practice keyboards (for teaching typing G09B 13/02) |
| 9/44 | . . . providing simulation in a real aircraft flying through the atmosphere without restriction of its path | 17/00 | Teaching reading (teaching lip-reading G09B 21/00) |
| 9/46 | . . . the aircraft being a helicopter | 17/003 | . {electrically operated apparatus or devices} |
| 9/48 | . . . a model being viewed and manoeuvred from a remote point | 17/006 | . . {with audible presentation of the material to be studied (audio and audio-visual teaching apparatus in general G09B 5/04 , G09B 5/06)} |
| 9/50 | . . . Automatically directing the course of the aircraft | 17/02 | . Line indicators or other guides or masks |
| 9/52 | . . for teaching control of an outer space vehicle | 17/04 | . for increasing the rate of reading; Reading rate control |
| 9/54 | . Simulation of radar (G09B 9/40 takes precedence) | 19/00 | Teaching not covered by other main groups of this subclass (teaching or practice apparatus for gun-aiming or gun-laying F41G 3/26) |
| 9/56 | . Simulation of sonar | 19/0007 | . {Signalling} |
| 11/00 | Teaching hand-writing, shorthand, drawing, or painting | 19/0015 | . {Dancing} |
| 11/02 | . Finger, hand or arm supporting devices | 19/0023 | . {Colour matching, recognition, analysis, mixture or the like} |
| 11/04 | . Guide sheets or plates; Tracing charts (templates for drawing purposes B43L 13/20) | 19/003 | . {Repetitive work cycles; Sequence of movements} |
| 11/06 | . Devices involving the use of transparent or translucent tracing material, e.g. copy books | 19/0038 | . . {Sports} |
| 11/08 | . Teaching shorthand | 19/0046 | . {History} |
| 11/10 | . Teaching painting | 19/0053 | . {Computers, e.g. programming} |
| 13/00 | Teaching typing | 19/0061 | . {Geography} |
| 13/02 | . Dummy practice keyboard apparatus (for teaching music G09B 15/08) | 19/0069 | . {Engineering, e.g. mechanical, electrical design (computer engineering G09B 19/0053)} |
| | | 19/0076 | . {Body hygiene; Dressing; Knot tying} |
| | | 19/0084 | . . {Dental hygiene} |
| | | 19/0092 | . {Nutrition} |
| | | 19/02 | . Counting; Calculating (abacus G06C 1/00) |
| | | 19/025 | . . {with electrically operated apparatus or devices} |
| | | 19/04 | . Speaking (with audible presentation of the material to be studied G09B 5/04) |
| | | 19/06 | . Foreign languages (with audible presentation of material to be studied G09B 5/04) |
| | | 19/08 | . . Printed or written appliances, e.g. text books, bilingual letter assemblies, charts |

- 19/10 . Modelling
- 19/12 . Clock-reading
- 19/14 . Traffic procedures, e.g. traffic regulations
- 19/16 . Control of vehicles or other craft ([simulators G09B 9/02](#))
- 19/162 . . {Control of ships, boats, or other waterborne vehicles}
- 19/165 . . {Control of aircraft}
- 19/167 . . {Control of land vehicles}
- 19/18 . Book-keeping or economics
- 19/20 . Needlework
- 19/22 . Games, e.g. card games
- 19/24 . Use of tools
- 19/26 . Dot-and dash telegraphic codes
- 21/00 Teaching, or communicating with, the blind, deaf or mute** (audible presentation of material to be studied [G09B 5/04](#); devices or methods for replacing direct visual or auditory perception by another kind of perception [A61F 9/08](#), [A61F 11/04](#); audible indication of meter readings or of colour [G01D 7/12](#); watches for blind persons [G04B 25/02](#); methods or arrangements for reading or recognising printed or written characters [G06K 9/00](#); speech analysis, speech recognition [G10L](#); sound-recording or reproducing, per se [G11B](#))
 - 21/001 . {Teaching or communicating with blind persons ([G09B 21/02](#) - [G09B 21/06](#) take precedence)}
 - 21/002 . . {Writing aids for blind persons (devices for Braille writing [G09B 21/02](#))}
 - 21/003 . . {using tactile presentation of the information, e.g. Braille displays}
 - 21/004 . . . {Details of particular tactile cells, e.g. electro-mechanical or mechanical layout}
 - 21/005 . . . {Details of specially-adapted software to access information, e.g. to browse through hyperlinked information}
 - 21/006 . . {using audible presentation of the information}
 - 21/007 . . {using both tactile and audible presentation of the information}
 - 21/008 . . {using visual presentation of the information for the partially sighted}
 - 21/009 . {Teaching or communicating with deaf persons ([G09B 21/04](#) takes precedence; deaf and dumb persons [G09B 21/00](#))}
 - 21/02 . Devices for Braille writing (typewriters for Braille [B41J 3/32](#))
 - 21/025 . . {wherein one tactile input is associated to a single finger}
 - 21/04 . Devices for conversing with the deaf-blind
 - 21/06 . Devices for teaching lip-reading
- 23/00 Models for scientific, medical, or mathematical purposes, e.g. full-sized devices for demonstration purposes** (in the nature of toys [A63H](#))
 - 23/02 . for mathematics (for statics or dynamics [G09B 23/08](#))
 - 23/04 . . for geometry, trigonometry, projection or perspective (for surveying [G09B 25/06](#))
 - 23/06 . for physics
 - 23/08 . . for statics or dynamics
 - 23/10 . . . of solid bodies
 - 23/12 . . . of liquids or gases
 - 23/14 . . for acoustics
 - 23/16 . . for science of heat
 - 23/18 . . for electricity or magnetism
 - 23/181 . . . {for electric and magnetic fields; for voltages; for currents}
 - 23/182 . . . {for components}
 - 23/183 . . . {for circuits}
 - 23/185 {for building block systems}
 - 23/186 {for digital electronics; for computers, e.g. microprocessors}
 - 23/187 . . . {for measuring instruments}
 - 23/188 . . . {for motors; for generators; for power supplies; for power distribution}
 - 23/20 . . for atomic physics or nucleonics
 - 23/22 . . for optics
 - 23/24 . for chemistry
 - 23/26 . for molecular structures; for crystallography
 - 23/28 . for medicine
 - 23/281 . . {for pregnancy, birth or obstetrics ([G09B 23/286](#) takes precedence)}
 - 23/283 . . {for dentistry or oral hygiene ([G09B 23/286](#) takes precedence)}
 - 23/285 . . {for injections, endoscopy, bronchoscopy, sigmoidoscopy, insertion of contraceptive devices or enemas}
 - 23/286 . . {for scanning or photography techniques, e.g. X-rays, ultrasonics}
 - 23/288 . . {for artificial respiration or heart massage}
 - 23/30 . Anatomical models
 - ([G09B 23/281](#) - [G09B 23/288](#) take precedence)
 - 23/303 . . . {specially adapted to simulate circulation of bodily fluids}
 - . . . {comprising real biological tissue}
 - . . . with moving parts
 - . . . with removable parts
 - 23/306 . . . with moving parts
 - 23/32 . . . with removable parts
 - 23/34 . for zoology
 - 23/36 . for botany
 - 23/38 . for geology
 - 23/40 . for geology
- 25/00 Models for purposes not provided for in [G09B 23/00](#), e.g. full-sized devices for demonstration purposes** (model vehicles, tracks therefor, models in the nature of toys [A63H](#))
 - 25/02 . of industrial processes; of machinery
 - 25/025 . . {hydraulic; pneumatic}
 - 25/04 . of buildings
 - 25/06 . for surveying; for geography, e.g. relief models (globes [G09B 27/00](#); maps [G09B 29/00](#))
 - 25/08 . of scenic effects, e.g. trees, rocks, water surfaces (for stage purposes [A63J 1/00](#))
- 27/00 Planetaria; Globes**
 - 27/02 . Tellurions; Orreries
 - 27/04 . Star maps
 - 27/06 . Celestial globes
 - 27/08 . Globes (celestial globes [G09B 27/06](#))
- 29/00 Maps; Plans; Charts; Diagrams, e.g. route diagram** (star maps [G09B 27/04](#); devices for holding or supporting maps [A47B 97/02](#); for computing purposes [G06G 1/14](#), [G09B 1/16](#); display boards [G09F](#))
 - 29/001 . {Planning boards}
 - 29/002 . . {using magnetic elements}
 - 29/003 . {Maps}

G09B

- 29/004 . . {Map manufacture or repair; Tear or ink or water resistant maps; Long-life maps ([printing processes for maps B41M 3/02](#); by permanently attaching map sections to sheets [B42B 7/00](#))}
- 29/005 . . {Map projections or methods associated specifically therewith}
- 29/006 . . {Representation of non-cartographic information on maps, e.g. population distribution, wind direction, radiation levels, air and sea routes}
- 29/007 . . . {using computer methods}
- 29/008 . . . {Touring maps or guides to public transport networks}
- 29/02 . sectional
- 29/04 . . the sections being arranged in the form of a foldable sheet or sheets
- 29/06 . of belt form, e.g. endless belt
- 29/08 . Hanging maps or the like
- 29/10 . Map spot or coordinate position indicators; Map reading aids ([optical projection apparatus per se G03B](#))
- 29/102 . . {using electrical means}
- 29/104 . . . {involving the optical projection of slides, microfilm or the like}
- 29/106 . . {using electronic means}
- 29/108 . . . {involving the optical projection of slides, microfilm or the like}
- 29/12 . Relief maps ([relief models G09B 25/06](#))
- 29/14 . Local time charts