CPC COOPERATIVE PATENT CLASSIFICATION

G PHYSICS
(NOTES omitted)

INSTRUMENTS

G07 CHECKING-DEVICES

G07D HANDLING OF COINS OR VALUABLE PAPERS, e.g. TESTING, SORTING BY DENOMINATIONS, COUNTING, DISPENSING, CHANGING OR DEPOSITING

NOTE

In this subclass, the following terms or expressions are used with the meaning indicated:
- "coins" also covers tokens of similar nature;
- "valuable papers" covers paper currency, banknotes, bills, cheques, vouchers, securities, bonds or similar valuable papers, irrespective of the material used for these, which represent monetary value that can be measured or verified.

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.

1/00 **Coin dispensers** (devices delivering paper currency G07D 11/00)
1/02 . giving change {(coin-actuated mechanisms in general G07F)}
1/04 . . dispensing change equal to a sum deposited
1/06 . . dispensing the difference between a sum paid and a sum charged
1/08 . . hand actuated

3/00 **Sorting a mixed bulk of coins into denominations**
3/02 . Sorting coins by means of graded apertures
3/04 . . arranged on an inclined rail
3/06 . . arranged along a circular path
3/08 . . arranged on a helix
3/10 . . provided by sieves arranged in series
3/12 . Sorting coins by means of stepped deflectors
3/121 . . {arranged on inclined paths}
3/123 . . . {the coins being deflected off rails}
3/125 . . . . {by moving deflectors}
3/126 . . . {the coins being diverted by ramps in channels}
3/128 . . {Rotary devices}
3/14 . Apparatus driven under control of coin-sensing elements
3/16 . in combination with coin-counting

5/00 **Testing specially adapted to determine the identity or genuineness of coins, e.g. for segregating coins which are unacceptable or alien to a currency**

NOTE

In groups G07D 5/005 - G07D 5/10, the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.

5/005 . {Testing the surface pattern, e.g. relief}
5/02 . Testing the dimensions, e.g. thickness, diameter; Testing the deformation
5/04 . Testing the weight
5/06 . Testing the hardness or elasticity
5/08 . Testing the magnetic or electric properties
5/10 . Testing the rim, e.g. the milling of the rim

7/00 **Testing specially adapted to determine the identity or genuineness of valuable papers or for segregating those which are unacceptable, e.g. banknotes that are alien to a currency**

NOTE

In this group, groups G07D 7/16 - G07D 7/20 take precedence over groups G07D 7/02 - G07D 7/14.

7/003 . {using security elements (using digital security elements G07D 7/004)}
7/0032 . . {using holograms}
7/0034 . . {using watermarks}
7/004 . using digital security elements, e.g. information coded on a magnetic thread or strip
7/0043 . . using barcodes
7/0047 . . using checkcodes, e.g. coded numbers derived from serial number and denomination
7/005 . Testing security markings invisible to the naked eye, e.g. verifying thickened lines or unobtrusive markings or alterations
7/0051 . . {involving markings removed from an original pattern}
7/0053 . . {involving markings added to a pattern, e.g. interstitial points}
7/0054 . . {involving markings the properties of which are altered from original properties}
7/0055 . . . {involving markings displaced slightly from original positions within a pattern}
7/0056 . . . {involving markings of altered colours}
7/0057 . . . {involving markings which are altered in dimension, e.g. thickened lines}

7/01 . Testing electronic circuits therein
7/02 . Testing electrical properties of the materials thereof (G07D 7/01 takes precedence)
7/023 . . Measuring conductivity by direct contact
7/026 . . using capacitive sensors
7/04 . Testing magnetic properties of the materials thereof, e.g. by detection of magnetic imprint (G07D 7/01 takes precedence)
7/06 . using wave or particle radiation
7/08 . . Acoustic waves
7/10 . . Microwaves
7/12 . . Visible light, infrared or ultraviolet radiation
7/1205 . . . Testing spectral properties
7/121 . . . Apparatus characterised by sensor details
7/128 . . . Viewing devices
7/14 . using chemical means
7/15 . using heating means
7/16 . Testing the dimensions
7/162 . . Length or width
7/164 . . Thickness
7/17 . Apparatus characterised by positioning means or by means responsive to positioning
7/181 . Testing mechanical properties or condition, e.g. wear or tear (G07D 7/16 takes precedence)
7/182 . . Testing stiffness
7/183 . . Detecting folds or doubles
7/185 . . Detecting holes or pores
7/187 . . Detecting defacement or contamination, e.g. dirt
7/189 . . Detecting attached objects, e.g. tapes or clips (G07D 7/187 takes precedence)
7/20 . Testing patterns thereon (G07D 7/004, G07D 7/005 take precedence)
7/2008 . . {using pre-processing, e.g. de-blurring, averaging, normalisation or rotation}
7/2016 . . {using feature extraction, e.g. segmentation, edge detection or Hough-transformation}
7/202 . . using pattern matching
7/2033 . . . Matching unique patterns, i.e. patterns that are unique to each individual paper
7/2041 . . . {Matching statistical distributions, e.g. of particle sizes orientations}
7/205 . . . {Matching spectral properties}
7/206 . . . Matching template patterns
7/207 . . . Matching patterns that are created by the interaction of two or more layers, e.g. moiré patterns
7/2075 . . {Setting acceptance levels or parameters}
7/2083 . . . {Learning}
7/2091 . . . {Setting a plurality of levels}

9/00 **Counting coins** (in combination with coin-sorting G07D 3/16)**; Handling of coins not provided for in the other groups of this subclass**
9/002 . {Coin holding devices}
9/004 . . {Coin packages}
9/006 . . . {Coin wrappers}
9/008 . {Feeding coins from bulk}
9/02 . Change trays
9/04 . Hand- or motor-driven devices for counting coins {(counting mechanisms in general G06M)}
9/06 . Devices for stacking or otherwise arranging coins on a support, e.g. apertured plate for use in counting coins
9/065 . . {Devices for wrapping coins}

11/00 **Devices accepting coins; Devices accepting, dispensing, sorting or counting valuable papers**
11/0087 . {Banknote changing devices}
11/009 . {Depositing devices}
11/0093 . . {Drop boxes}
11/0096 . . {Accepting paper currency or other valuables in containers, e.g. in code-marked envelopes}
11/10 . Mechanical details
11/12 . . Containers for valuable papers
11/125 . . . Secure containers
11/13 . . . with internal means for handling valuable papers
11/135 . . . {Remote note containers}
11/14 . . Inlet or outlet ports
11/16 . . Handling of valuable papers (within containers G07D 11/13)
11/165 . . . Picking
11/17 . . . Aligning
11/175 . . . Flattening, e.g. straightening out folds
11/18 . . . Diverting into different paths or containers
11/20 . Controlling or monitoring the operation of devices; Data handling
11/22 . . Means for sensing or detection
11/225 . . . for detecting or indicating tampering
11/23 . . . for sensing the quantity of valuable papers in containers
11/235 . . . for monitoring or indicating operating conditions; for detecting malfunctions
11/237 . . . . for detecting transport malfunctions, e.g. jams or misfeeds
11/24 . . Managing the stock of valuable papers
11/245 . . . Replenishment
11/25 . . . Relocation of valuable papers within devices
11/26 . . Servicing, repairing or coping with irregularities, e.g. power failure or vandalism
11/28 . . Setting of parameters; Software updates
11/30 . . Tracking or tracing valuable papers or cassettes
11/32 . . Record keeping (transaction aspects G07F 19/00)
11/34 . . . Monitoring the contents of devices, e.g. the number of stored valuable papers
11/36 . . . Auditing of activities
11/40 . Device architecture, e.g. modular construction
11/50 . Sorting or counting valuable papers
11/60 . User-interface arrangements

13/00 **Handling of coins or of valuable papers, characterised by a combination of mechanisms not covered by a single one of groups G07D 1/00 - G07D 11/00**

2201/00 **Coin dispensers**

2205/00 **Coin testing devices**
2205/001 . Reconfiguration of coin testing devices
2205/0011 . . by downloading test parameters, e.g. remotely
2205/0012 . . automatic adjustment, e.g. self-calibration

2207/00 **Paper-money testing devices**

2211/00 **Paper-money handling devices**