

# CPC COOPERATIVE PATENT CLASSIFICATION

## G PHYSICS (NOTES omitted)

### INSTRUMENTS

#### G07 CHECKING-DEVICES

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

##### NOTES

- In this subclass, the following terms or expressions are used with the meaning indicated:
  - "coins" also covers tokens of similar nature;
  - "paper currency or similar valuable papers" covers banknotes, bills, cheques, vouchers, securities, bonds or the like.
- This subclass covers handling of "coins" or "paper currency" insofar as they carry distinctive value features representative of money or the like.

##### Informative references:

- sorting in general [B07C](#)
- handling paper sheets in general [B65H](#)
- counting by weighing [G01G](#)
- counting of objects in general, i.e. without discriminating of denominations, [G06M](#)

##### WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[G07D 13/00](#) covered by [G07D 11/00](#) and subgroup.

<b>1/00</b>	<b>Coin dispensers (devices delivering paper currency <a href="#">G07D 11/00</a>)</b>	<b>5/00</b>	<b>Testing specially adapted to determine the identity or genuineness of coins, e.g. for segregating coins which are unacceptable or alien to a currency {(in combination with apparatus freed or actuated by coins or the like <a href="#">G07F 3/00</a>)}</b>
1/02	• giving change {(coin-actuated mechanisms in general <a href="#">G07F</a> )}		
1/04	• . dispensing change equal to a sum deposited		
1/06	• . dispensing the difference between a sum paid and a sum charged	5/005	• {Testing the surface pattern, e.g. relief}
1/08	• . hand actuated	5/02	• Testing the dimensions, e.g. thickness, diameter; Testing the deformation
<b>3/00</b>	<b>Sorting a mixed bulk of coins into denominations {(sorting paper currency <a href="#">G07D 11/0084</a>; sorting by coin weight <a href="#">G01G</a>)}</b>	5/04	• Testing the weight
3/02	• Sorting coins by means of graded apertures	5/06	• Testing the hardness or elasticity
3/04	• . arranged on an inclined rail	5/08	• Testing the magnetic or electric properties
3/06	• . arranged along a circular path	5/10	• Testing the rim, e.g. the milling of the rim
3/08	• . arranged on a helix		
3/10	• . provided by sieves arranged in series	<b>7/00</b>	<b>Testing specially adapted to determine the identity or genuineness of paper currency or similar valuable papers or for segregating those which are alien to a currency or otherwise unacceptable</b>
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		
		7/003	• {using security elements (using digital security elements <a href="#">G07D 7/004</a> )}
		7/0032	• . {using holograms}

##### NOTE

In this group, groups [G07D 7/16](#) - [G07D 7/20](#) take precedence over groups [G07D 7/02](#) - [G07D 7/14](#).

##### WARNING

Group [G07D 7/00](#) is impacted by reclassification into group [G07D 7/15](#).

Groups [G07D 7/00](#) and [G07D 7/15](#) should be considered in order to perform a complete search.

- 7/0034 . . {using watermarks}
- 7/004 . . using digital security elements, e.g. information coded on a magnetic thread or strip
- WARNING**  
Groups [G07D 7/004](#) – [G07D 7/0043](#) are incomplete pending reclassification of documents from group [G07D 7/20](#).  
Groups [G07D 7/004](#), [G07D 7/0043](#) and [G07D 7/20](#) should be considered in order to perform a complete search.
- 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
- WARNING**  
Groups [G07D 7/005](#) – [G07D 7/0057](#) are incomplete pending reclassification of documents from group [G07D 7/20](#).  
Groups [G07D 7/005](#) – [G07D 7/0057](#) and [G07D 7/20](#) should be considered in order to perform a complete search.
- 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
- WARNING**  
Group [G07D 7/01](#) is incomplete pending reclassification of documents from group [G07D 7/02](#) and [G07D 7/04](#).  
Groups [G07D 7/01](#), [G07D 7/02](#) and [G07D 7/04](#) should be considered in order to perform a complete search.
- 7/02 . . Testing electrical properties of the materials thereof ([G07D 7/01](#) takes precedence)
- WARNING**  
Group [G07D 7/02](#) is impacted by reclassification into group [G07D 7/01](#).  
Groups [G07D 7/02](#) and [G07D 7/01](#) should be considered in order to perform a complete search.
- 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)
- WARNING**  
Group [G07D 7/04](#) is impacted by reclassification into group [G07D 7/01](#).  
Groups [G07D 7/04](#) and [G07D 7/01](#) should be considered in order to perform a complete search.
- 7/06 . . using wave or particle radiation
- 7/08 . . Acoustic waves
- 7/10 . . Microwaves
- 7/12 . . Visible light, infra-red or ultraviolet radiation
- WARNING**  
Group [G07D 7/12](#) is incomplete pending reclassification of documents from group [G07D 7/121](#).  
Groups [G07D 7/12](#) and [G07D 7/121](#) should be considered in order to perform a complete search.
- 7/1205 . . . Testing spectral properties
- 7/121 . . . Apparatus characterised by sensor details
- WARNING**  
Group [G07D 7/121](#) is impacted by reclassification into group [G07D 7/12](#).  
Groups [G07D 7/121](#) and [G07D 7/12](#) should be considered in order to perform a complete search.
- 7/128 . . . Viewing devices
- 7/14 . . using chemical means
- 7/15 . . using heating means
- WARNING**  
Group [G07D 7/15](#) is incomplete pending reclassification of documents from group [G07D 7/00](#).  
Groups [G07D 7/00](#) and [G07D 7/15](#) should be considered in order to perform a complete search.
- 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)
- WARNING**  
Group [G07D 7/181](#) is impacted by reclassification into group [G07D 7/189](#).  
Groups [G07D 7/181](#) and [G07D 7/189](#) should be considered in order to perform a complete search.
- 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)  
**WARNING**  
Group [G07D 7/189](#) is incomplete pending reclassification of documents from group [G07D 7/181](#).  
Groups [G07D 7/181](#) and [G07D 7/189](#) should be considered in order to perform a complete search.
- 7/20 . . Testing patterns thereon ([G07D 7/004](#), [G07D 7/005](#) take precedence)  
**WARNING**  
Group [G07D 7/20](#) is impacted by reclassification into groups [G07D 7/004](#) – [G07D 7/005](#).  
Groups [G07D 7/20](#) and [G07D 7/004](#) – [G07D 7/005](#) should be considered in order to perform a complete search.
- 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**  
**NOTE**  
Informative references  
– handling of paper currency [G07D 11/0021](#)  
– counting paper currency [G07D 11/0084](#)
- 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 or {accepting or dispensing} paper currency, e.g. depositing machines (apparatus freed or actuated by coins or the like [G07F](#); apparatus freed or actuated by paper currency [G07F 7/04](#); complete banking systems [G07F 19/00](#); arrangements actuated by a coded-card for receiving or dispensing monies or the like and posting such transactions to existing accounts, e.g. automatic teller machines [ATMs] [G07F 19/20](#))**  
**NOTES**  
1. This group covers constructional or functioning aspects of devices handling paper currency, including of so-called Automatic Teller Machines [ATMs]; other aspects of ATMs, e.g. posting transactions to existing accounts or aspects related to the interaction with users, are covered by group [G07F 19/20](#)  
2. Informative reference:  
3. - devices dispensing coins [G07D 1/00](#)
- 11/0003 . {Mechanical details}
- 11/0006 . . {Note containers}
- 11/0009 . . . {Secure note containers, e.g. for transport (coin boxes [G07F 9/06](#); locking means [E05B](#); safes [E05G](#); currency invalidating means [E05G 1/14](#))}
- 11/0012 . . . {incorporating note handling devices within the containers}
- 11/0015 . . . {Remote note containers}
- 11/0018 . . {Inlet or outlet ports}
- 11/0021 . . {Handling paper currency, e.g. banknotes (handling paper sheets in general [B65H](#))}
- NOTE**  
Informative reference- handling paper sheets in general [B65H](#)
- 11/0024 . . . {Note picking}
- 11/0027 . . . {Aligning (apparatus characterised by positioning means or by means responsive to positioning [G07D 7/17](#))}
- 11/003 . . . {Flattening, e.g. straightening out folds}
- 11/0033 . . . {Diverting}
- 11/0036 . {Electronic and sensing details}
- 11/0039 . . {for detection of transport malfunction, e.g. jams, misfeeds}
- 11/0042 . . {for tamper detection and indication}
- 11/0045 . . {for cassette fill-level sensing}
- 11/0048 . . {for checking and indicating machine condition, fault detection (registering or indicating the working of machines in general [G07C 3/00](#))}
- 11/0051 . {Means for managing operation, e.g. data handling with apparatus}
- 11/0054 . . {for managing stock of banknotes}
- 11/0057 . . . {Replenishment}
- 11/006 . . . {Relocation of banknotes within apparatus}
- 11/0063 . . {for servicing, repairing or coping with irregularities, e.g. power failure, vandalism}
- 11/0066 . . {for tracking or tracing banknotes or cassettes}
- 11/0069 . . {for record keeping (indicating machine condition [G07D 11/0048](#); transaction aspects [G07F 19/00](#))}
- 11/0072 . . . {Contents of apparatus, e.g. number of stored banknotes}
- 11/0075 . . . {Audit trail of performed activities}

## G07D

- 11/0078 . . {for transmitting data, e.g. software updates, parameter settings}
- 11/0081 . {Device architecture, e.g. modular construction}
- 11/0084 . {Sorting or counting paper currency ([sorting coins G07D 3/00](#) - [counting coins G07D 9/00](#))}
- 11/0087 . {Banknote changing devices}
- 11/009 . {Depositing devices ([safes E05G](#))}
- 11/0093 . . {Drop boxes}
- 11/0096 . . {Accepting paper currency or other valuables in containers, e.g. in code-marked envelopes}
  
- 13/00**     **Handling of coins or of paper currency or similar 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