

CPC COOPERATIVE PATENT CLASSIFICATION

G PHYSICS (NOTES omitted)

INSTRUMENTS

G07 CHECKING-DEVICES

G07B TICKET-ISSUING APPARATUS; FARE-REGISTERING APPARATUS; FRANKING APPARATUS

1/00 Machines for printing and issuing tickets ([printing mechanisms per se B41](#); output mechanisms of digital computers [G06C 11/00](#))

- 1/02 . employing selectable printing plates
- 1/04 . . wherein the plates are inserted
- 1/06 . without selectable printing plates
- 1/08 . portable

3/00 Machines for issuing preprinted tickets

- 3/02 . from stock in wound strip form
- 3/04 . from a stack

5/00 Details of, or auxiliary devices for, ticket-issuing machines (for validating inserted tickets [G07B 11/02](#))

- 5/02 . for cutting-off or separating tickets
- 5/04 . for recording or registering tickets issued
- 5/06 . for preventing fraudulent operation
- 5/08 . for avoiding incorrect action of the machine
- 5/10 . . indicating when ticket supply is exhausted
- 5/12 . allowing manual writing on the tickets

7/00 Holders providing direct manual access to the tickets

9/00 Ticket punches ([perforating pliers B26F 1/36](#); marking record carriers in digital fashion by punching [G06K 1/02](#))

- 9/02 . Toy ticket-punches

11/00 Apparatus for validating or cancelling issued tickets

- 11/02 . for validating inserted tickets
- 11/03 . . by printing
- 11/05 . . by perforating
- 11/07 . . by separating part of ticket
- 11/09 . . . combined with receptacle for separated part of ticket ([refuse receptacles in general B65F 1/00](#))
- 11/11 . for cancelling tickets

13/00 Taximeters ([measuring distance travelled G01C](#); [measuring time G04](#))

- 13/005 . {operating mechanically}
- 13/02 . Details; Accessories
- 13/04 . . for indicating fare or state of hire
- 13/045 . . . {with indicating means on the outside of the vehicle}
- 13/06 . . Driving arrangements
- 13/08 . . Tariff-changing arrangements
- 13/10 . . . automatically actuated

15/00 Arrangements or apparatus for collecting fares, tolls or entrance fees at one or more control points (handling coins or paper currency [G07D](#); apparatus for vending or hiring articles or services activated by coins, credit cards, paper currency or the like [G07F 7/00](#), [G07F 17/00](#))

NOTES

1. Data processing aspects of payment systems or protocols relating to toll, entrance fee or fare collection, e.g. in road pricing or congestion charging, are also classified in [G06Q 20/00](#).
2. { This group covers also:
 - car rental systems;
 - systems for reserving and using access tickets, e.g. check-in systems }

15/02 . taking into account a variable factor such as distance or time, e.g. for passenger transport, parking systems or car rental systems ([G07B 15/06](#) takes precedence; taximeters [G07B 13/00](#); parking meters per se [G07F 17/24](#); {car rental systems per se [G07B 15/00](#)})

15/04 . . comprising devices to free a barrier, turnstile, or the like ({[turnstile with registering means G07C 9/02](#); coin-freed aspects [G07F 17/00](#)})

15/06 . Arrangements for road pricing or congestion charging of vehicles or vehicle users, e.g. automatic toll systems

NOTE

This group covers the identification or tracking of vehicles or vehicle users for the purpose of road pricing or congestion charging, which means that vehicles or vehicle users are not necessarily channelled through fixed control points, e.g. toll booths or overhead gantries, but may be detected at a number of places when they travel in normal fashion in a pre-defined locality, e.g. a defined area in a city centre or an expressway, and where the information so generated is then used to determine a charge to be paid

15/063 . . {using wireless information transmission between the vehicle and a fixed station ([identification of vehicles G08G](#))}

15/066 . . {being coin-operated}

17/00 Franking apparatus ([printing aspects B41](#))

- 17/00008 . . . {operated by portable carriers, e.g. for inputting credit or information}
- 17/00016 . . . {Relations between apparatus, e.g. franking machine at customer or apparatus at post office, in a franking system}
- 17/00024 . . . {Physical or organizational aspects of franking systems}
- 2017/00032 . . . {Determining the location of apparatus}
- 2017/0004 . . . {Determining the location of mailpieces outside apparatus}
- 2017/00048 . . . {Software architecture}
- 2017/00056 {Client-server}
- 2017/00064 {Virtual meter, online stamp; PSD functions or indicia creation not at user's location}
- 2017/00072 . . . {Hybrid mail, i.e. mail delivered using different physical means along the mail delivery path, e.g. email and envelope}
- 17/0008 . . . {Communication details outside or between apparatus ([coin-freed apparatus for franking per se G07F 17/26](#))}
- 2017/00088 {via landlines}
- 2017/00096 {via phone lines}
- 2017/00104 {via TV cable}
- 2017/00112 {Wireless}
- 2017/0012 {in a mobile phone system}
- 2017/00129 {Satellite communication}
- 2017/00137 {In a LAN}
- 2017/00145 {via the Internet}
- 2017/00153 {for sending information}
- 2017/00161 {from a central, non-user location, e.g. for updating rates or software, or for refilling funds}
- 2017/00169 {from a franking apparatus, e.g. for verifying accounting}
- 2017/00177 {from a portable device, e.g. a card or a PCMCIA}
- 17/00185 . . . {Details internally of apparatus in a franking system, e.g. franking machine at customer or apparatus at post office ([digital data processing G06F](#); [coin-freed apparatus for franking per se G07F 17/26](#))}
- 17/00193 . . . {Constructional details of apparatus in a franking system}
- 2017/00201 {Open franking system, i.e. the printer is not dedicated to franking only, e.g. PC (Personal Computer)}
- 2017/00209 {Mailbox, i.e. container for outgoing mail}
- 2017/00217 {Portable franking apparatus, i.e. the whole franking apparatus, not parts alone}
- 2017/00225 {Vending machine or POS (Point Of Sale) apparatus}
- 2017/00233 {Housing, e.g. lock or hardened casing}
- 2017/00241 {Modular design}
- 2017/0025 {Storage of, e.g. ribbon}
- 2017/00258 {Electronic hardware aspects, e.g. type of circuits used}
- 2017/00266 {Man-machine interface on the apparatus}
- 2017/00274 {Mechanical, e.g. keyboard}
- 2017/00282 {Touch screen}
- 2017/0029 {Soft buttons; buttons that can change function}
- 2017/00298 {Visual, e.g. screens and their layouts}
- 2017/00306 {Acoustic, e.g. voice control or speech prompting}
- 17/00314 . . . {Communication within apparatus, personal computer [PC] system, or server, e.g. between printhead and central unit in a franking machine}
- 2017/00322 {Communication between components/modules/parts, e.g. printer, printhead, keyboard, conveyor or central unit}
- 2017/0033 {Communication with software component, e.g. dll or object}
- 2017/00338 {Error detection or handling}
- 2017/00346 {Power handling, e.g. power-down routine}
- 2017/00354 {Setting of date}
- 17/00362 . . . {Calculation or computing within apparatus, e.g. calculation of postage value}
- 2017/0037 {Calculation of postage value}
- 2017/00379 {Calculation of different sending options for a mail piece}
- 2017/00387 {Currency calculation, e.g. from DEM to EUR}
- 2017/00395 {Memory organization}
- 2017/00403 {Memory zones protected from unauthorized reading or writing}
- 2017/00411 {Redundant storage, e.g. back-up of registers}
- 2017/00419 {Software organization, e.g. separation into objects}
- 2017/00427 {Special accounting procedures, e.g. storing special information}
- 17/00435 . . . {Details specific to central, non-customer apparatus, e.g. servers at post office or vendor}
- 2017/00443 {Verification of mailpieces, e.g. by checking databases}
- 2017/00451 {Address hygiene, i.e. checking and correcting addresses to be printed on mail pieces using address databases}
- 17/00459 . . . {Details relating to mailpieces in a franking system}
- 17/00467 . . . {Transporting mailpieces ([postal sorting B07C](#))}
- 2017/00475 {Sorting mailpieces}
- 2017/00483 {Batch processing of mailpieces}
- 2017/00491 {Mail/envelope/insert handling system}
- 2017/005 {Measures for preventing or handling mailpieces stoppages}
- 17/00508 . . . {Printing or attaching on mailpieces ([printing mechanisms B41J](#); [security printing B41M 3/14](#); [marking methods B41M 5/00](#); [inks C09D 11/00](#); [record carriers with at least a part designed to carry digital markings G06K 19/00](#))}
- 2017/00516 {Details of printing apparatus}
- 2017/00524 {Printheads}
- 2017/00532 {Inkjet}
- 2017/0054 {Thermal printhead}
- 2017/00548 {Mechanical printhead}
- 2017/00556 {Ensuring quality of print}
- 2017/00564 {Ensuring correct position of print on mailpiece}
- 2017/00572 {Details of printed item}
- 2017/0058 {Printing of code}
- 2017/00588 {Barcode}
- 2017/00596 {Printing of address}
- 2017/00604 {Printing of advert or logo}
- 2017/00612 {Attaching item on mailpiece}
- 2017/0062 {Label}
- 2017/00629 {Circuit, e.g. transponder}

- 2017/00637 . . . {Special printing techniques, e.g. interlacing}
- 2017/00645 {Separating print into fixed and variable parts}
- 2017/00653 . . . {Special inks, e.g. fluorescent}
- 17/00661 . . {Sensing or measuring mailpieces ([weighing G01G 19/00](#); [methods or arrangements for reading or recognising printed or written characters or for recognising patterns G06K 9/00](#))}
- 2017/00669 . . . {Sensing the position of mailpieces}
- 2017/00677 {Keeping track of mailpieces inside apparatus}
- 2017/00685 . . . {Measuring the dimensions of mailpieces}
- 2017/00693 . . . {Measuring the speed of mailpieces inside apparatus}
- 2017/00701 . . . {Measuring the weight of mailpieces}
- 2017/00709 . . . {Scanning mailpieces}
- 2017/00717 {Reading barcodes}
- 2017/00725 {Reading symbols, e.g. OCR}
- 17/00733 . {Cryptography or similar special procedures in a franking system}
- NOTE**
- References listed below indicate CPC places which could also be of interest when carrying out a search in respect of the subject matter covered by the preceding group:
- secret or secure communication [H04L 9/00](#)
 - mechanisms actuated by objects other than coins to free or to actuate vending, hiring, coin or paper currency dispensing or refunding apparatus for cashless transactions only [G07F 7/10](#)
 - access-control involving the use of a pass in combination with an identity-check of the pass-holder by means of personal physical data, e.g. characteristic facial curves, hand geometry, voice spectrum, fingerprints [G07C 9/00](#)
 - methods or arrangements for reading or recognising printed or written characters or for recognising patterns [G06K 9/00](#)
 - random or pseudo-random generators [G06F 7/58](#)
 - circuits generating pulses having a predetermined statistical distribution [H03K 3/84](#)
 - multiple service credit cards with protecting memory zones [G07F 7/10](#)
 - security arrangements for protecting computers or computer systems against unauthorised activity [G06F 21/00](#)
 - record carriers with conductive marks and special arrangements for circuits, e.g. for protecting identification code in memory [G06K 19/073](#)
 - error detection and error correction [G06F 11/00](#)
 - coding, decoding or code conversion, for error detection or error correction [H03M 13/00](#)
- 2017/00741 . . {using specific cryptographic algorithms or functions}
- 2017/0075 . . . {Symmetric, secret-key algorithms, e.g. DES, RC2, RC4, IDEA, Skipjack, CAST, AES}
- 2017/00758 {Asymmetric, public-key algorithms, e.g. RSA, Elgamal}
- 2017/00766 {Digital signature, e.g. DSA, DSS, ECDSA, ESIGN}
- 2017/00774 . . . {MAC (Message Authentication Code), e.g. DES-MAC}
- 2017/00782 . . . {Hash function, e.g. MD5, MD2, SHA}
- 2017/0079 . . {Time-dependency}
- 2017/00798 . . . {using timestamps, i.e. recording time in message}
- 2017/00806 . . . {Limited validity time}
- 2017/00814 . . . {Continuous communication, e.g. answer within a limited time period}
- 2017/00822 . . {including unique details}
- 2017/0083 . . . {Postal data, e.g. postage, address, sender, machine ID, vendor}
- 2017/00838 . . . {Personal data, i.e. biometrics}
- 2017/00846 . . {Key management}
- 2017/00854 . . . {Key generation}
- 2017/00862 . . . {Key storage, e.g. escrowing by trusted third party}
- 2017/0087 . . . {Key distribution}
- 2017/00879 {using session key}
- 2017/00887 {using look-up tables, also called master tables with pointers}
- 2017/00895 . . . {Key verification, e.g. by using trusted party}
- 2017/00903 . . . {Key destruction or retirement}
- 2017/00911 . . {Trusted party}
- 2017/00919 . . {Random number generator}
- 2017/00927 . . {Certificates, e.g. X.509}
- 2017/00935 . . {Passwords}
- 2017/00943 . . {Compression techniques}
- 2017/00951 . . {Error handling, e.g. EDC (Error Detection Codes)}
- 2017/00959 . . {Cryptographic modules, e.g. a PC encryption board}
- 2017/00967 . . . {PSD [Postal Security Device] as defined by the USPS [US Postal Service]}
- 17/00975 . {using mechanical accounting means}
- 17/00983 . {with means for resetting the monetary value of the accounting means}
- 17/00991 . . {from a central point, e.g. post office}
- 17/02 . with means for computing or counting [{\(G07B 17/00975 takes precedence\)}](#)
- 17/04 . with means for avoiding misuse