

CPC**COOPERATIVE PATENT CLASSIFICATION****G07B****TICKET-ISSUING APPARATUS ; FARE-REGISTERING APPARATUS ; FRANKING APPARATUS****G07B 1/00****Machines for printing and issuing tickets** (printing mechanisms per se [B41](#) ; output mechanisms of digital computers [G06C 11/00](#))

G07B 1/02

. employing selectable printing plates

G07B 1/04

. . wherein the plates are inserted

G07B 1/06

. without selectable printing plates

G07B 1/08

. portable

G07B 3/00**Machines for issuing preprinted tickets**

G07B 3/02

. from stock in wound strip form

G07B 3/04

. from a stack

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

G07B 5/02

. for cutting-off or separating tickets

G07B 5/04

. for recording or registering tickets issued

G07B 5/06

. for preventing fraudulent operation

G07B 5/08

. for avoiding incorrect action of the machine

G07B 5/10

. . indicating when ticket supply is exhausted

G07B 5/12

. allowing manual writing on the tickets

G07B 7/00**Holders providing direct manual access to the tickets****G07B 9/00****Ticket punches** (perforating pliers [B26F 1/36](#) ; marking record carriers in digital fashion by punching [G06K 1/02](#))

G07B 9/02

. Toy ticket-punches

G07B 11/00**Apparatus for validating or cancelling issued tickets**

G07B 11/02

. for validating inserted tickets

- G07B 11/03 . . by printing
- G07B 11/05 . . by perforating
- G07B 11/07 . . by separating part of ticket
- G07B 11/09 . . . combined with receptacle for separated part of ticket ([refuse receptacles in general B65F 1/00](#))
- G07B 11/11 . for cancelling tickets

G07B 13/00 **Taximeters** ([measuring distance travelled G01C](#) ; [measuring time G04](#))

- G07B 13/005 . { [operating mechanically](#) }
- G07B 13/02 . Details ; Accessories
- G07B 13/04 . . for indicating fare or state of hire
- G07B 13/045 . . . { [with indicating means on the outside of the vehicle](#) }
- G07B 13/06 . . Driving arrangements
- G07B 13/08 . . Tariff-changing arrangements
- G07B 13/10 . . . automatically actuated

G07B 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](#))

NOTE

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](#) .

{ Notes

This group covers also:

- car rental systems;
- systems for reserving and using access tickets, e.g. check-in systems }

- G07B 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](#) })
- G07B 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](#)) }
- G07B 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

- G07B 15/063 .. { using wireless information transmission between the vehicle and a fixed station (identification of vehicles [G08G](#)) }
- G07B 15/066 .. { being coin-operated }

G07B 17/00 Franking apparatus (printing aspects [B41](#))

- G07B 17/00008 . { operated by portable carriers, e.g. for inputting credit or information }
- G07B 17/00016 . { Relations between apparatus, e.g. franking machine at customer or apparatus at post office, in a franking system }
- G07B 17/00024 .. { Physical or organizational aspects of franking systems }
- G07B 17/0008 .. { Communication details outside or between apparatus (coin-freed apparatus for franking per se [G07F 17/26](#) ; 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 19/00F](#)) }
- G07B 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](#)) }
- G07B 17/00193 .. { Constructional details of apparatus in a franking system }
- G07B 17/00314 .. { Communication within apparatus, personal computer (PC) system, or server, e.g. between printhead and central unit in a franking machine }
- G07B 17/00362 .. { Calculation or computing within apparatus, e.g. calculation of postage value }
- G07B 17/00435 .. { Details specific to central, non-customer apparatus, e.g. servers at post office or vendor }
- G07B 17/00459 . { Details relating to mailpieces in a franking system }
- G07B 17/00467 .. { Transporting mailpieces (postal sorting [B07C](#)) }
- G07B 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](#)) }
- G07B 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](#)) }
- G07B 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 7/10F6](#)

- 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 7/10D10M](#)
- 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](#)]

- [G07B 17/00975](#) . { using mechanical accounting means }
- [G07B 17/00983](#) . { with means for resetting the monetary value of the accounting means }
- [G07B 17/00991](#) .. { from a central point, e.g. post office }
- [G07B 17/02](#) . with means for computing or counting { ([G07B 17/00975](#) takes precedence) }
- [G07B 17/04](#) . with means for avoiding misuse

G07B 2017/00 **Franking apparatus (printing aspects [B41](#))**

- [G07B 2017/00016](#) . { Relations between apparatus, e.g. franking machine at customer or apparatus at post office, in a franking system }
- [G07B 2017/00024](#) .. { Physical or organizational aspects of franking systems }
- [G07B 2017/00032](#) ... Determining the location of apparatus
- [G07B 2017/0004](#) ... Determining the location of mailpieces outside apparatus
- [G07B 2017/00048](#) ... Software architecture
- [G07B 2017/00056](#) Client-server
- [G07B 2017/00064](#) Virtual meter, online stamp ; PSD functions or indicia creation not at user's location
- [G07B 2017/00072](#) ... Hybrid mail, i.e. mail delivered using different physical means along the mail delivery path, e.g. email and envelope
- [G07B 2017/0008](#) .. { Communication details outside or between apparatus (coin-freed apparatus for franking per se [G07F 17/26](#) ; 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 19/00F](#)) }
- [G07B 2017/00088](#) ... via landlines
- [G07B 2017/00096](#) via phone lines
- [G07B 2017/00104](#) via TV cable

G07B 2017/00112	...	Wireless
G07B 2017/0012	....	in a mobile phone system
G07B 2017/00129	....	Satellite communication
G07B 2017/00137	...	In a LAN
G07B 2017/00145	...	via the Internet
G07B 2017/00153	...	for sending information
G07B 2017/00161	....	from a central, non-user location, e.g. for updating rates or software, or for refilling funds
G07B 2017/00169	....	from a franking apparatus, e.g. for verifying accounting
G07B 2017/00177	....	from a portable device, e.g. a card or a PCMCIA
G07B 2017/00185	.	{ 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) }
G07B 2017/00193	..	{ Constructional details of apparatus in a franking system }
G07B 2017/00201	...	Open franking system, i.e. the printer is not dedicated to franking only, e.g. PC (Personal Computer)
G07B 2017/00209	...	Mailbox, i.e. container for outgoing mail
G07B 2017/00217	...	Portable franking apparatus, i.e. the whole franking apparatus, not parts alone
G07B 2017/00225	...	Vending machine or POS (Point Of Sale) apparatus
G07B 2017/00233	...	Housing, e.g. lock or hardened casing
G07B 2017/00241	...	Modular design
G07B 2017/0025	...	Storage of e.g. ribbon
G07B 2017/00258	...	Electronic hardware aspects, e.g. type of circuits used
G07B 2017/00266	...	Man-machine interface on the apparatus
G07B 2017/00274	....	Mechanical, e.g. keyboard
G07B 2017/00282	.....	Touch screen
G07B 2017/0029	.....	Soft buttons ; buttons that can change function
G07B 2017/00298	....	Visual, e.g. screens and their layouts
G07B 2017/00306	....	Acoustic, e.g. voice control or speech prompting
G07B 2017/00314	..	{ Communication within apparatus, personal computer (PC) system, or server, e.g. between printhead and central unit in a franking machine }
G07B 2017/00322	...	Communication between components/modules/parts, e.g. printer, printhead, keyboard, conveyor or central unit
G07B 2017/0033	...	Communication with software component, e.g. dll or object
G07B 2017/00338	...	Error detection or handling
G07B 2017/00346	...	Power handling, e.g. power-down routine
G07B 2017/00354	...	Setting of date
G07B 2017/00362	..	{ Calculation or computing within apparatus, e.g. calculation of postage value }
G07B 2017/0037	...	Calculation of postage value
G07B 2017/00379	...	Calculation of different sending options for a mail piece
G07B 2017/00387	...	Currency calculation, e.g. from DEM to EUR
G07B 2017/00395	...	Memory organization
G07B 2017/00403	....	Memory zones protected from unauthorized reading or writing

G07B 2017/00411	....	Redundant storage, e.g. back-up of registers
G07B 2017/00419	...	Software organization, e.g. separation into objects
G07B 2017/00427	...	Special accounting procedures, e.g. storing special information
G07B 2017/00435	..	{ Details specific to central, non-customer apparatus, e.g. servers at post office or vendor }
G07B 2017/00443	...	Verification of mailpieces, e.g. by checking databases
G07B 2017/00451	...	Address hygiene, i.e. checking and correcting addresses to be printed on mail pieces using address databases
G07B 2017/00459	.	{ Details relating to mailpieces in a franking system }
G07B 2017/00467	..	{ Transporting mailpieces (postal sorting B07C) }
G07B 2017/00475	...	Sorting mailpieces
G07B 2017/00483	...	Batch processing of mailpieces
G07B 2017/00491	...	Mail/envelope/insert handling system
G07B 2017/005	...	Measures for preventing or handling mailpieces stoppages
G07B 2017/00508	..	{ 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) }
G07B 2017/00516	...	Details of printing apparatus
G07B 2017/00524	....	Printheads
G07B 2017/00532	.....	Inkjet
G07B 2017/0054	.....	Thermal printhead
G07B 2017/00548	.....	Mechanical printhead
G07B 2017/00556	....	Ensuring quality of print
G07B 2017/00564	.....	Ensuring correct position of print on mailpiece
G07B 2017/00572	...	Details of printed item
G07B 2017/0058	....	Printing of code
G07B 2017/00588	.....	Barcode
G07B 2017/00596	....	Printing of address
G07B 2017/00604	....	Printing of advert or logo
G07B 2017/00612	...	Attaching item on mailpiece
G07B 2017/0062	....	Label
G07B 2017/00629	....	Circuit, e.g. transponder
G07B 2017/00637	...	Special printing techniques, e.g. interlacing
G07B 2017/00645	....	Separating print into fixed and variable parts
G07B 2017/00653	...	Special inks, e.g. fluorescent
G07B 2017/00661	..	{ 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) }
G07B 2017/00669	...	Sensing the position of mailpieces
G07B 2017/00677	....	Keeping track of mailpieces inside apparatus
G07B 2017/00685	...	Measuring the dimensions of mailpieces
G07B 2017/00693	...	Measuring the speed of mailpieces inside apparatus
G07B 2017/00701	...	Measuring the weight of mailpieces

- G07B 2017/00709 ... Scanning mailpieces
- G07B 2017/00717 Reading barcodes
- G07B 2017/00725 Reading symbols, e.g. OCR
- G07B 2017/00733 . { Cryptography or similar special procedures in a franking system }

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- G07B 2017/00741 .. using specific cryptographic algorithms or functions
- G07B 2017/0075 Symmetric, secret-key algorithms, e.g. DES, RC2, RC4, IDEA, Skipjack, CAST, AES
- G07B 2017/00758 Asymmetric, public-key algorithms, e.g. RSA, Elgamal
- G07B 2017/00766 Digital signature, e.g. DSA, DSS, ECDSA, ESIGN
- G07B 2017/00774 ... MAC ([Message Authentication Code](#)) , e.g. DES-MAC
- G07B 2017/00782 ... Hash function, e.g. MD5, MD2, SHA
- G07B 2017/0079 .. Time-dependency
- G07B 2017/00798 ... using timestamps, i.e. recording time in message
- G07B 2017/00806 ... Limited validity time
- G07B 2017/00814 ... Continuous communication, e.g. answer within a limited time period
- G07B 2017/00822 .. including unique details
- G07B 2017/0083 ... Postal data, e.g. postage, address, sender, machine ID, vendor
- G07B 2017/00838 ... Personal data, i.e. biometrics
- G07B 2017/00846 .. Key management
- G07B 2017/00854 ... Key generation

G07B 2017/00862	...	Key storage, e.g. escrowing by trusted third party
G07B 2017/0087	...	Key distribution
G07B 2017/00879	....	using session key
G07B 2017/00887	....	using look-up tables, also called master tables with pointers
G07B 2017/00895	...	Key verification, e.g. by using trusted party
G07B 2017/00903	...	Key destruction or retirement
G07B 2017/00911	..	Trusted party
G07B 2017/00919	..	Random number generator
G07B 2017/00927	..	Certificates, e.g. X.509
G07B 2017/00935	..	Passwords
G07B 2017/00943	..	Compression techniques
G07B 2017/00951	..	Error handling, e.g. EDC (Error Detection Codes)
G07B 2017/00959	..	Cryptographic modules, e.g. a PC encryption board
G07B 2017/00967	...	PSD (Postal Security Device) as defined by the USPS (US Postal Service)