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

Machines for issuing preprinted tickets
3/02 . from stock in wound strip form
3/04 . from a stack

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

Holders providing direct manual access to the tickets
7/00

Ticket punches (perforating pliers B26F 1/36; marking record carriers in digital fashion by punching G06K 1/02)
9/02 . Toy ticket-punches

Apparatus for validating or cancelling issued tickets
11/00

. 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

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

. [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

Arrangements or apparatus for collecting fares, tolls or entrance fees at one or more control points (handling coins or paper currency G07F; 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
}

. 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 15000})

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

. 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

. {using wireless information transmission between the vehicle and a fixed station (identification of vehicles G08G) }

. {being coin-operated}

Franking apparatus (printing aspects B41)
[Software architecture]

[Client-server]

[Virtual meter, online stamp; PSD]

[Open franking system, i.e. the printer is not dedicated to franking only, e.g. PC (Personal Computer)]

[Portable franking apparatus, i.e. the whole franking apparatus, not parts alone]

[Vending machine or POS (Point Of Sale) apparatus]

[Housing, e.g. lock or hardened casing]

[Modular design]

[Storage, e.g. ribbon]

[Electronic hardware aspects, e.g. type of circuits used]

[Man-machine interface on the apparatus]

[Mechanical, e.g. keyboard]

[Touch screen]

[Soft buttons; buttons that can change function]

[Visual, e.g. screens and their layouts]
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 3/04)
- multiple service credit cards with protecting memory zones (G07E 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 19/075)
- error detection and error correction (G06F 11/00)
- coding, decoding or code conversion, for error detection or error correction (H03M 13/00)

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]

2017/00735 . . . [Asymmetric, public-key algorithms, e.g. RSA, Elgamal]
2017/00766 . . . [Digital signature, e.g. RSA, DSS, ECDSA, ESGIN]
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]
17/04 . . . [with means for avoiding misuse]