# SECTION G — PHYSICS

### **G07 CHECKING-DEVICES**

G07B TICKET-ISSUING APPARATUS; TAXIMETERS; ARRANGEMENTS OR APPARATUS FOR COLLECTING FARES, TOLLS OR ENTRANCE FEES AT ONE OR MORE CONTROL POINTS; FRANKING APPARATUS

### **Subclass index**

MACHINES FOR PRINTING OR ISSUING TICKETS; DETAILS THEREOF	1/00, 3/00,	, 5/00
OTHER APPARATUS OR SYSTEMS CONCERNING TICKETS		
Holders; punches; validating; cancelling	7/00, 9/00,	, 11/00
TAXIMETERS	13/00	
ARRANGEMENTS OR APPARATUS FOR COLLECTING FARES, TOLLS OR ENTRANCE FEES AT		
ONE OR MORE CONTROL POINTS	15/00	
FRANKING APPARATUS	17/00	

Machines for printing and issuing tickets
<ul> <li>employing selectable printing plates</li> </ul>
<ul> <li>wherein the plates are inserted</li> </ul>
<ul> <li>without selectable printing plates</li> </ul>
<ul> <li>portable</li> </ul>
Machines for issuing preprinted tickets
<ul> <li>from stock in wound strip form</li> </ul>
from a stack
Details of an amilian desires for tishet issuing
Details of, or auxiliary devices for, ticket-issuing
machines (for validating inserted tickets G07B 11/02)
<ul> <li>for cutting-off or separating tickets</li> </ul>
<ul> <li>for recording or registering tickets issued</li> </ul>
<ul> <li>for preventing fraudulent operation</li> </ul>
<ul> <li>for avoiding incorrect action of the machine</li> </ul>
<ul> <li>indicating when ticket supply is exhausted</li> </ul>
allowing manual writing on the tickets
Holders providing direct manual access to the tickets

# e.g. in road pricing or congestion charging, are also classified in G06Q 20/00.

15/02

13/10

15/00

classified in G06Q 20/00.
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

Data processing aspects of payment systems or protocols relating to toll, entrance fee or fare collection,

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,

· · · automatically actuated

G07F 17/00) [1, 2011.01]

Note(s) [2011.01]

G07F 17/24) **[1, 2011.01]**15/04 • comprising devices to f

 comprising devices to free a barrier, turnstile, or the like (turnstiles with registering means G07C 9/02)

15/06 • Arrangements for road pricing or congestion charging of vehicles or vehicle users, e.g. automatic toll systems [2011.01]

# Apparatus for validating or cancelling issued tickets [2]

11/02 • for validating inserted tickets

· Toy ticket-punches

11/03 • • by printing **[2]** 

11/05 • • by perforating **[2]** 

B26F 1/36)

11/07 • • by separating part of ticket [2]

11/09 • • • combined with receptacle for separated part of ticket [2]

**Ticket punches** (punching or perforating pliers

11/11 • for cancelling tickets [2]

# 13/00 Taximeters

9/00

9/02

11/00

13/02 • Details; Accessories

13/04 • • for indicating fare or state of hire

13/06 • • Driving arrangements

13/08 • • Tariff-changing arrangements

## Note(s) [2011.01]

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.

#### 17/00 Franking apparatus

• with means for computing or counting

17/04 • with means for avoiding misuse

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TIME OR ATTENDANCE REGISTERS; REGISTERING OR INDICATING THE WORKING OF MACHINES; GENERATING RANDOM NUMBERS; VOTING OR LOTTERY APPARATUS; ARRANGEMENTS, SYSTEMS, OR APPARATUS FOR CHECKING NOT PROVIDED FOR ELSEWHERE (identification of persons, e.g. finger-printing, footprinting, A61B 5/117; indicating or recording apparatus for measuring in general, analogous apparatus but in which the input is not a variable to be measured, e.g. a hand operation, G01D; clocks, clock mechanisms G04B, G04C; time-interval measuring G04F; counting mechanisms per se G06M)

#### Subclass index

REGISTERING TIME OF EVENTS OR ELAPSED TIME	1/00
REGISTERING THE WORKING OF MACHINES; OF VEHICLES; DETAILS THEREOF	3/00, 5/00, 7/00
INDIVIDUAL ENTRY OR EXIT REGISTERS	9/00
CHECKING APPARATUS NOT PROVIDED FOR ELSEWHERE	11/00
VOTING APPARATUS; GENERATING RANDOM NUMBERS, LOTTERY APPARATUS	13/00, 15/00

1/00 Registering, indicating, or recording the time of events or elapsed time, e.g. time-recorders for work people (registering or indicating the working of machines or vehicles G07C 3/00, G07C 5/00)

#### Note(s)

Groups G07C 1/20-G07C 1/32 take precedence over groups G07C 1/02-G07C 1/10.

- not involving the registering, indicating, or recording of other data
- 1/04 wherein the time is indicated in figures
- 1/06 • with apparatus adapted for use with individual
- 1/08 wherein the time is indicated by marking an element, e.g. a card or tape, in a position determined by the time
- together with the recording, indicating, or registering of other data, e.g. of signs of identity (together with the recording of a continuously-varying variable G01D or the appropriate other subclass of class G01, dependent on the variable)
- 1/12 • wherein the time is indicated in figures
- 1/14 • with apparatus adapted for use with individual cards
- wherein the time is indicated by marking an element, e.g. a card or tape, in a position determined by the time
- 1/18 • with apparatus adapted for use with individual cards
- 1/20 Checking timed patrols, e.g. of watchman
- 1/22 in connection with sports or games
- 1/24 Race time-recorders (race-finish cameras G03B 41/00)
- 1/26 • Pigeon-timing or like equipment
- 1/28 • Indicating playing time
- Parking meters (registering or indicating waiting time of vehicles by means driven by the vehicle
   G07C 5/02; coin-freed parking meters G07F 17/24)
- 1/32 Time-recording locks (locks giving indication of unauthorised unlocking E05B 39/00)
- 3/00 Registering or indicating the condition or the working of machines or other apparatus, other than vehicles (engine indicators G01L; testing apparatus incident to its manufacture G01M; signalling arrangements per se, indicating undesired or abnormal working conditions G08B)

- 3/02 Registering or indicating working or idle time only
- 3/04 using counting means or digital clocks
- 3/06 • in graphical form
- Registering or indicating the production of the machine either with or without registering working or idle time
- 3/10 using counting means
- 3/12 • in graphical form
- 3/14 Quality control systems
- 5/00 Registering or indicating the working of vehicles (for measuring distance travelled or combinations of speed and distance G01C; engine indicators G01L; devices for measuring speed or acceleration G01P; apparatus forming part of taximeters G07B)
- Registering or indicating driving, working, idle, or waiting time only
- 5/04 using counting means or digital clocks
- 5/06 • in graphical form
- Registering or indicating performance data other than driving, working, idle, or waiting time, with or without registering driving, working, idle, or waiting time
- 5/10 • using counting means or digital clocks
- 5/12 • in graphical form
- 7/00 Details or accessories common to the registering or indicating apparatus of groups G07C 3/00 and G07C 5/00
- 9/00 Individual entry or exit registers
- 9/02 Turnstiles with registering means (coin-freed aspects G07F)
- 11/00 Arrangements, systems, or apparatus for checking, e.g. the occurrence of a condition, not provided for elsewhere (for checking lottos or bingo games A63F 3/06; signalling or alarm arrangements G08B)
- 13/00 Voting apparatus
- 13/02 Ballot boxes
- 15/00 Generating random numbers; Lottery apparatus (digital computer arrangements for generating random or pseudo-random numbers G06F 7/58; generating electric pulses at random intervals H03K 3/84) [3]

# G07D HANDLING OF COINS OR OF PAPER CURRENCY OR SIMILAR VALUABLE PAPERS, e.g. TESTING, SORTING BY DENOMINATIONS, COUNTING, DISPENSING, CHANGING OR DEPOSITING [2]

### Note(s)

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.

1/00	Coin dispensers		Note(s)
1/02	giving change		Groups G07D 7/16-G07D 7/20 take precedence over
1/04	<ul> <li>dispensing change equal to a sum deposited</li> </ul>		groups G07D 7/02-G07D 7/14
1/06	<ul> <li>dispensing the difference between a sum paid and a sum charged</li> </ul>	7/02	• using electric means (G07D 7/04, G07D 7/06 take precedence) [7]
1/08	hand actuated	7/04	<ul> <li>using magnetic means, e.g. detection of magnetic imprint [7]</li> </ul>
3/00	Sorting a mixed bulk of coins into	7/06	<ul> <li>using wave or particle radiation [7]</li> </ul>
	denominations [1, 7]	7/08	• • Acoustic waves [7]
3/02	<ul> <li>Sorting coins by means of graded apertures</li> </ul>	7/10	Microwaves [7]
3/04	<ul> <li>arranged on an inclined rail</li> </ul>	7/12	<ul> <li>Visible light, infra-red or ultra-violet radiation [7]</li> </ul>
3/06	<ul> <li>arranged along a circular path</li> </ul>	7/14	• using chemical means [7]
3/08	• • arranged on a helix	7/16	• Testing the dimensions [7]
3/10	<ul> <li>provided by sieves arranged in series</li> </ul>	7/18	• Testing the stiffness [7]
3/12	<ul> <li>Sorting coins by means of stepped deflectors</li> </ul>	7/20	• Testing patterns thereon [7]
3/14	<ul> <li>Apparatus driven under control of coin-sensing</li> </ul>	,,_0	resums patterns thereon [7]
	elements	9/00	Counting coins (in combination with coin-sorting
3/16	<ul> <li>in combination with coin-counting</li> </ul>		G07D 3/16); Handling of coins not provided for in
5/00	Testing specially adapted to determine the identity or		the other groups of this subclass
3/00	genuineness of coins, e.g. for segregating coins which	9/02	Change trays
	are unacceptable or alien to a currency [1, 7]	9/04	<ul> <li>Hand- or motor-driven devices for counting coins</li> </ul>
	•	9/06	• Devices for stacking or otherwise arranging coins on
	Note(s)		a support, e.g. apertured plate for use in counting coins
	In groups G07D 5/02-G07D 5/10, in the absence of an		COINS
	indication to the contrary, classification is made in the	11/00	Devices accepting coins or paper currency, e.g.
	last appropriate place.		<b>depositing machines</b> (apparatus freed or actuated by
5/02	• Testing the dimensions, e.g. thickness, diameter;		coins or the like G07F; apparatus freed or actuated by
E /0.4	Testing the deformation [3]		paper currency G07F 7/04; complete banking systems
5/04	Testing the weight [3]  The standard leading to the following the standard leading to the stand		G07F 19/00) <b>[5]</b>
5/06	Testing the hardness or elasticity [3]	13/00	Handling of coins or of paper currency or similar
5/08	Testing the magnetic or electric properties [3]  The sixth si	13/00	Handling of coins or of paper currency or similar valuable papers, characterised by a combination of
5/10	Testing the rim, e.g. the milling of the rim [3]		mechanisms not covered by a single one of groups
7/00	Testing specially adapted to determine the identity or		G07D 1/00-G07D 11/00 [5]
	genuineness of paper currency or similar valuable		
	papers, e.g. for segregating those which are		
	unacceptable or alien to a currency [2]		

## G07F COIN-FREED OR LIKE APPARATUS (coin sorting G07D 3/00; coin testing G07D 5/00) [1, 7]

# Note(s)

- 1. This subclass <u>does not cover</u> constructions or details of apparatus which includes, or is combined with, coin-actuated mechanisms but is not specially adapted or modified for use therewith. Such constructions or details are covered by the relevant subclass for the particular apparatus.
- 2. In this subclass, the following term is used with the meaning indicated:
  - "coins" covers also tokens or the like.

# **Subclass index**

ARRANGEMENTS OR MECHANISMS IN GENERAL	
Coin inlet; coin actuation; others	1/00, 5/00, 7/00
APPARATUS CHARACTERISED BY THE APPLICATION	
Dispensing; metering; hiring	11/00, 13/00, 15/00, 17/00
COMPLETE BANKING SYSTEMS	19/00

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1/00	Coin inlet arrangements; Coins specially adapted to operate coin-freed mechanisms	11/04	in which magazines the articles are stored one vertically above the other
1/02	Coin slots	11/06	• • supported individually on pivotally-mounted
1/04	Coin chutes		flaps or shelves
1/06	<ul> <li>Coins specially adapted to operate coin-freed mechanisms</li> </ul>	11/08	<ul> <li>• arranged in two columns in staggered relationship</li> </ul>
5/00	Coin-actuated mechanisms; Interlocks	11/10	<ul> <li>two or more magazines having a common delivery chute</li> </ul>
5/02	<ul> <li>actuated mechanically by coins, e.g. by a single coin</li> </ul>	11/12	• • • with means for automatically changing to
5/04	<ul> <li>wherein two or more coins of the same</li> </ul>		reserve stacks
5/06	denomination are required for each transaction  • wherein two or more coins of different	11/14	<ul> <li>• with means for raising the stack of articles to permit delivery of the topmost</li> </ul>
	denominations are required for each transaction	11/16	• • • Delivery means
5/08	<ul> <li>wherein the use of two or more coins or an</li> </ul>	11/18	Recessed drawers
	equivalent single coin is optional for each	11/20	<ul> <li>• • • Pushers actuated directly by hand</li> </ul>
	transaction; wherein the use of two or more coins or an alternative equivalent combination of coins is optional for each transaction	11/22	• • • • Pushers actuated indirectly by hand, e.g. through cranks or levers
5/10	actuated electrically by the coin, e.g. by a single coin	11/24	<ul> <li>• • • Rotary or oscillatory members</li> </ul>
5/10	wherein two or more coins of the same	11/26	• • • Endless bands
3/12	denomination are required for each transaction	11/28	<ul> <li>in which the magazines are inclined</li> </ul>
5/14	wherein two or more coins of different denominations are required for each transaction	11/30	<ul> <li>• • two or more magazines having independent delivery</li> </ul>
5/16	wherein the use of two or more coins or an equivalent single coin is optional for each	11/32	<ul> <li>• • two or more magazines having a common delivery chute</li> </ul>
	transaction; wherein the use of two or more coins	11/34	<ul> <li>in which the magazines are of zig-zag form</li> </ul>
	or an alternative equivalent combination of coins is optional for each transaction	11/36	• • in which the magazines are of helical or spiral form
5/18	specially adapted for controlling several coin-freed	11/38	<ul> <li>in which the magazines are horizontal</li> </ul>
	apparatus from one place	11/40	• • the articles being delivered by hand-operated
5/20	<ul> <li>specially adapted for registering coins as credit, e.g.</li> </ul>	11/40	means
- /	mechanically actuated	11/42	• • • the articles being delivered by motor-driven
5/22	electrically actuated	11/44	<ul><li>means</li><li>in which magazines the articles are stored in bulk</li></ul>
5/24	with change-giving	11/44	<ul> <li>from movable storage containers or supports</li> </ul>
5/26	<ul> <li>Interlocks, e.g. for locking the doors of compartments other than that to be used</li> </ul>	11/48	the storage containers or supports, e.g. magazine, being pivotally mounted
7/00	Mechanisms actuated by objects other than coins to free or to actuate vending, hiring, coin or paper	11/50	<ul> <li>the storage containers or supports being rotatably</li> </ul>
	currency dispensing or refunding apparatus [2]	11/50	mounted  • • • about horizontal axes
7/02	<ul> <li>by keys or other credit registering devices [2]</li> </ul>	11/52	
7/04	by paper currency	11/54 11/56	<ul><li> about vertical axes</li><li> the storage containers or supports both</li></ul>
7/06	<ul> <li>by returnable containers, e.g. bottles</li> </ul>	11/30	rotating and moving axially
7/08	<ul> <li>by coded identity card or credit card [2]</li> </ul>	11/58	<ul> <li>the articles being supported on or by endless belts</li> </ul>
7/10	• • together with a coded signal [2]	11/50	or like conveyors
7/12	Card verification [5]	11/60	the storage containers or supports being rectilinearly movable
9/00	Details other than those peculiar to special kinds or	11/62	• in which the articles are stored in compartments in
	types of apparatus (coin inlet arrangements G07F 1/00;		fixed receptacles
	coin-actuated mechanisms, interlocks G07F 5/00)	11/64	• in which the articles are individually suspended from
9/02	Devices for alarm or indication, e.g. when empty;  Advertising arrangements in sain feed apparatus		stationary supports
	Advertising arrangements in coin-freed apparatus (alarms or warning devices indicating the interruption	11/66	• in which the articles are dispensed by cutting from a
	of flow to be metered G07F 15/10)	4	mass
9/04	Means for returning surplus or unused coins	11/68	<ul> <li>in which the articles are torn or severed from strips or</li> </ul>
9/06	• Coin boxes	11/70	sheets  • in which the articles are formed in the apparatus from
9/08	Counting total of coins inserted	11/70	<ul> <li>in which the articles are formed in the apparatus from components, blanks, or material constituents</li> </ul>
9/10	Casings, e.g. with means for heating or cooling	11/72	<ul> <li>Auxiliary equipments, e.g. for lighting cigars,</li> </ul>
11/00	Coin-freed apparatus for dispensing, or the like,		opening bottles
	discrete articles	13/00	Coin-freed apparatus for controlling dispensing of
11/02	<ul> <li>from non-movable magazines</li> </ul>		fluids, semiliquids or granular material from

 ${\bf reservoirs}$ 

13/02	• by volume	17/12	<ul> <li>comprising lockable containers, e.g. for accepting clothes to be cleaned</li> </ul>
13/04	• by weight	17/14	for fastenings for doors (of containers for safe-
13/06	<ul> <li>with selective dispensing of different fluids or materials or mixtures thereof</li> </ul>	1//14	keeping G07F 17/12); for turnstiles
13/08	in the form of a spray	17/16	<ul> <li>for devices exhibiting advertisements,</li> </ul>
13/10	<ul> <li>with associated dispensing of containers, e.g. cups or</li> </ul>		announcements, pictures, or the like
	other articles	17/18	<ul> <li>for washing or drying persons</li> </ul>
		17/20	<ul> <li>for washing or drying articles, e.g. clothes, motor</li> </ul>
<b>15/00</b>	Coin-freed apparatus with meter-controlled		cars
15 (00	dispensing of liquid, gas, or electricity	17/22	<ul> <li>for cleaning and polishing boots or shoes</li> </ul>
15/02	<ul> <li>in which the quantity mechanism is set forward by hand after insertion of a coin</li> </ul>	17/24	<ul> <li>for parking meters</li> </ul>
15/04		17/26	<ul> <li>for printing, stamping, franking, typing, or</li> </ul>
15/04	<ul> <li>in which the quantity mechanism is set forward automatically by the insertion of a coin</li> </ul>		teleprinting apparatus (ticket printing or like apparatus G07F 17/42)
15/06	<ul> <li>with means for prepaying basic charges, e.g. rent for</li> </ul>	17/28	<ul> <li>for radio apparatus</li> </ul>
	meters	17/30	<ul> <li>for musical instruments</li> </ul>
15/08	with means for varying the tariff or changing the	17/32	<ul> <li>for games, toys, sports, or amusements</li> </ul>
15/10	<ul><li>price</li><li>with alarm or warning devices, e.g. indicating the</li></ul>	17/34	• • depending on the stopping of moving members, e.g. "fruit" machines
	interrupting of the supply	17/36	<ul> <li>Age, character, or fortune telling apparatus</li> </ul>
15/12	<ul> <li>in which metering is on a time basis</li> </ul>	17/38	<ul> <li>Ball games; Shooting apparatus</li> </ul>
17/00	Coin-freed apparatus for hiring articles; Coin-freed facilities or services	17/40	for devices for accepting orders, advertisements, or the like
17/02	for optical devices, e.g. telescopes	17/42	<ul> <li>for ticket printing or like apparatus</li> </ul>
17/02	<ul> <li>for optical devices, e.g. telescopes</li> <li>for anthropometrical measurements such as weight,</li> </ul>		
1//04	height, strength	19/00	Complete banking systems; Coded card-freed
17/06	• for inflating-pumps		arrangements adapted for dispensing or receiving
17/08	for seats or footstools		monies or the like and posting such transactions to
17/10	for means for safe-keeping of property, left		existing accounts, e.g. automatic teller machines (dat processing equipment for bank accounting
17/10	temporarily, e.g. by fastening the property		G06Q 40/02) [5]
G07G	REGISTERING THE RECEIPT OF CASH, VALUABLE	ES, OR TOK	ENS (digital computing in general G06C, G06F) [4]
1/00	Cash registers (alarm indicators G07G 3/00)	1/14	Systems including one or more distant stations co
1/01	<ul> <li>Details for indicating (displaying information in general G09F, G09G) [4]</li> </ul>		operating with a central processing unit (data transmission in general H04L; telemetry systems
1/06	<ul> <li>with provision for the noting of the money to be paid [4]</li> </ul>		for selectively calling a substation from a main station H04Q 9/00) [4]
1/08	• • with rotating drums which display the money entered [4]	3/00	Alarm indicators, e.g. bells
1/10	<ul> <li>mechanically operated [4]</li> </ul>	5/00	Receipt-giving machines (cash registers giving receipt
1/12	<ul> <li>electronically operated (digital data processing aspects G06Q 20/00) [4]</li> </ul>		G07G 1/00)

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