

1 R	MISCELLANEOUS	43	..Dial and hand
1 A	.Shutters	44	.Operating devices
1 B	.Game counters	45	..Electric
1 C	.Numeral wheels	46	..Punch
1 D	.Casings	47	.Resetting
1 E	.Toy cash registers	48	..Direction indicator
1 F	."Fugitive one" mechanism	49	.Hundreds indicator
2	CASH REGISTERS AND RECORDERS	51	VOTING MACHINES
3	.Check printing	50 R	.Recording
4	CASH RECORDERS	50 A	..Recording and registering
5	.Manual	50 B	..Voting machines, recording
7 R	CASH REGISTERS	52	.Assembly
6	.Departmental	53	.Check operated
8	.Key set	54 R	.Key set
9	..Crank operated	54 A	..Interlocks, voting machines
10	..Drawer operated	54 B	..Endorsed candidate lockout
11	..Motor operated	54 C	..Primary voting mechanism
12	.Key operated	54 D	..Cumulative interlocks for voting machines
13	..Detail adders	54 E	..Independent voting mechanism
14	..Differential mechanism	54 F	..Voting machines, electric
15	...Key coupled	55 R	.Key operated
16	...Lost-motion mechanism	55 A	..Interlocks; voting machine
17	.Checks	55 C	..Primary lockouts
18	..Balls	55 E	..Independent voting mechanism
19	.Dial	56	.Vote counters
20	..Independent indicator	57	REGISTERING BALLOT BOXES
21	..Lever operated	375	SYSTEMS CONTROLLED BY DATA
22	.Drawer-operating mechanism		BEARING RECORDS
23	.Indicator mechanism	376	.Operations analysis
24	..Shutters	377	.Time analysis
25	..Tablet droppers	378	..Price determination
26	.Key arresters	379	.Banking systems
27	.Key locks	380	.Credit or identification card systems
28	.Lid registers	381	..With vending
7 A	.Refund devices and coin change	382	..Permitting access
33	FARE REGISTERS	382.5	...Changeable authorization
29 R	.Multiple	383	.Mechanized store
29 A	..Fare register seal	384	.Transportation
30 R	.Cab-fare indicating	385	.Inventory
30 A	..Meter preparation	386	.Voting machine
31 R	.Ticket delivery	400	ORDNANCE OR WEAPON SYSTEMS
31 T	..Issue and print		COMPUTER
32	.Registering boxes	401	.Bombing
34	.Dial and cylinder	402	..Toss
35	.Belt	403	.Torpedo director
36	.Parallel axes	404	.Aiming
37	..Cylinder	405	..Mechanical computation
38	..Dial and hand	406	...With tabular chart, scale, or graph
39	..Disk	407	..Compensating for weapon movement (e.g., tilt)
40	.Single axis		
41	..Concentric disk		
42	..Cylinder		

408	.Projectile flight time - fuse setting	455	...Light level control
409	.Parallex compensation	456	...Multiple column code
410	.Coordinate conversion	457	...Holographic
411	.With target tracking means	458	...Perforated record
412	..Position or course prediction	459	....Stationary
413	..Calculating speed and direction	460	.....Matrix of cells
414	.Range finder	461	....One dimensional scan
415	..With range rate change	462.01	...Bar code
416	..Range prediction	462.02	....Bar code having a plurality of bars with different heights (e.g., Postnet)
417	.Ballistic factor determination	462.03	...Circular bar code (e.g., concentric circles or sunburst)
418	.Hand adjusted scale mechanism	462.04	....Bar code with bars of more than two colors (e.g., multicolored bar code, multilevel gray)
419	RECORD CONTROLLED CALCULATORS	462.05	....Means to read bar code on a transparent medium (e.g., film)
420	.Machine control	462.06	....Light level adaptation
421	.Multiplying	462.07	....Means to decode multiple types or formats of bar code symbols (e.g., UPC, JAN, EAN, etc.)
422	.Dividing	462.08	...Bar code location or selection
423	.Subtraction	462.09	....2-D bar code
424	.Item distribution	462.1	...Means to decode a 2-D bar code
425	.Sorting and accounting	462.11	....Including an imager (e.g., CCD or camera-type reader)
426	.Relay- or contact-type storing or accumulating	462.12	...Bar code stitching (e.g., forming a complete bar code from several partial scans)
427	.Differential mechanism, synchronous	462.13	...Combined with diverse art device (e.g., security tag deactivator)
428	.Differential mechanism, stop set	462.14	...Stationary bar code reader
429	.Translators	462.15	...Programming or computer interface feature
430	.Key operators	462.16	...Bar width determination
431	.With data comparing	462.17	....Using plural sensors
432	.With printing	462.18	....Using counter or timer
433	..With paper feeding	462.19	.....Including count or time to binary conversion (e.g., Wide=1, Narrow=0)
434	.With punching	462.2	...Aiming or positioning adjunct (e.g., viewfinder, pointer, or positioning aid)
435	CODED RECORD SENSORS	462.21	....Using spotter beam
436	.Readout control	462.22	...Extended reader working range (e.g., multiple focal planes)
437	.Error checking		
438	.Testing		
439	.Particular sensor structure		
440	..Multiple sensor		
441	..Electrical contact		
442	...Perforated		
443	....Static sensed		
444	..Electromechanical		
445	...Perforated record		
446	....Sensing element in continuous contact with record		
447	....Array		
448	...Raised or depressed portions on record		
449	..Magnetic		
450	...Strengthen or diminish field or flux		
451	..Capacitive		
452	..Pneumatic		
453	..Mechanical		
454	..Optical		

462.23	.....Auto-focusing	474	.Synchronization
462.24	.....Using an imager (e.g., CCD or camera-type reader)	475	.Feed mechanisms
462.25	....Reader processing circuitry	476	..Control circuits
462.26	.....Amplitude control (e.g., automatic gain control)	477	...Direction
462.27	.....Analog to square wave converter (e.g., digitizer, binarizer, slicer)	478	..Pneumatic feed
462.28	.....Clock generating or sampling circuit	479	..Carriage
462.29	.....Noise reduction circuit (e.g., electrical filters)	480	..Direction reverse
462.3	....Scanner power on/off	481	..Intermittent feed
462.31	.....Including object detection	482	.Hand feed
462.32	....Specific scanning detail (e.g., scanner with a specific scanning field of view)	483	.Guides
462.33	.....Moving a spot of light (e.g., flying spot scanner)	484	..Adjustable
462.34	.....Hologram	485	..Aligning records
462.35	.....Having a transmissive optical element (e.g., lens, prism, or aperture)	486	.Holding devices
462.36	.....Using a moving mirror	487	RECORDS
462.37	.....Pattern mirror detail for nonrotating mirror	488	.Laminated
462.38	.....Rotating	489	.Perforated
462.39	.....Polygon	490	.Projections
462.4	.....Pattern mirror detail for rotating mirror	491	.Fluorescent, phosphorescent, radiation emitting
462.41	....Using an imager (e.g., CCD)	492	.Conductive
462.42	....Illumination detail (e.g., LED array)	493	.Magnetic
462.43	....Specified housing or mounting detail	494	.Particular code pattern
462.44	....Body attached	495	.Templates and guides
462.45	....Hand-held (e.g., portable)	61 R	CALCULATORS
462.46	.....Wireless link (e.g., RF, IR, etc.)	58 R	.Recording
462.47	.....Interchangeable scanning head or detachable handle	59 R	..Key operated
462.48	.....Trigger detail	59 A	...Miscellaneous key operated recording
462.49	.....Wand-type reader (e.g., manual scan)	59 BC	...Multiplying unitary base
468	...Invisible	59 BD	...Wahl type
469	...Color coded	59 BE	...Flat bed
470	...With scanning of record	59 BF	...Attachment for typewriters
471	....Cathode-ray tube	59 CP	...Clear sign printing
472.01	...Hand-held (e.g., portable)	59 BG	...Power operated
472.02	...Wireless link (e.g., RF, IR, etc.)	59 TP	...Total printing
472.03	...Wand-type reader (e.g., manual scan)	59 T	...Typewriter
473	...Light pipes	59 BH	...Addendoraphs
		60 R	..Key set
		60.11	...By means other than printing or punching
		60.12	...Combined with typewriter
		60.13	...Multiple recording means
		60.19	...Distinctive color
		60.15	...Non-numerical data
		60.16	....Alphabetical
		60.17	....Clearance symbol
		60.18	....Function indicating character or symbol
		60.2	...True negative total recording
		60.22	....Electric readout
		60.23	...With split printing
		60.24	...With extended totals
		60.25	...Non-recording controls
		60.26	...Non-add controls

60.27	...Gang recording	200 R	.Including means utilizing fluid, e.g., fluid amplifiers
60.28	....With zero recording controls	201 R	..Digital pulse
60.29	....By punching	201 ME	...Moving elements
60.3	....With total taking	201 FS	...Fluid sensor
60.31	.....By zeroizing result elements	201 PF	...Pure fluid
60.32	.....With blank cycle elimination	200 PF	..Analog pure fluid
60.33	.....By sensing result elements	200 WB	..Weigh beam
60.34	.....Combined with zeroizing	62 R	.Motor actuated
60.35	.....By differential timing	62 A	..Key set
60.37	.....By direct impression from result elements	62 B	..Key operated
60.38	...Digit by digit recording	62 C	..Wright - Degene (underwood) type
60.39	...With total taking	62 D	..Calculators, motor actuated
60.4	....Electrical	62 E	..Calculators, motor actuated, Elliot Fischer type
60.41	...With traveling paper carriage	62 F	..Motor circuit and clutch control (mult. and div. control)
60.42	....Control of carriage feed	63 R	.Traveling carriage
60.44	.....Shuttle type operation	63 A	..Manually operated
60.45	.....Power operation	63 B	..Machines with ten keys or less
60.46	.....Columnar	63 C	..With master wheels
60.47	....Control of function by carriage	63 D	..Power operated
60.48	....Totalizer selection	63 E	..Auto-control incident to multiplying and dividing
60.49	....Locking devices	63 F	..Auto-control incident to dividing
60.5	....Carriage bore function control structures	63 G	..Divided - divisor aligning mechanism
60.51	....Control of platen or paper feed	63 H	..Automatic multiplication
60.52	....Control of functions from platen or paper feed	63 J	..Both factors preset in full
60 D	...Dalton	63 K	..One factor only preset in full
60 E	...Ellis	63 L	..Miscellaneous
60 G	...Gardner	63 KP	..Key operated
60 HP	...Hopkin	63 KS	..Key set
60 MT	...Multiple totalizers	63 DE	..Decimal elimination
60 M	...Multiplying	64	.Adding pencils
60 PY	...Pay roll	64.3	.Decimal point locators
60 S	...Split	64.7	.Photographic
60 SS	...Sundstrand	65	.Bar and disk
60 TK	...Ten key	66	.Cylinder and disk
60 C	...Item counting	67	.Spiral
60 TN	...True negative	68	.Ball
60 HN	...Hanson	69	.Bar
60 P	...Print	70 R	..Slide rules
60 AP	...Automatic total print	70 A	...Special use slide rule
60 TW	...Typewriter	70 B	...Runners, cursors
60 B	...Burroughs	70 C	...Scales
60 CK	...Crank	70 D	...Slide rule pencils
58 M	...Miscellaneous	71 R	.Belt
58 CW	..Check writers and markers	71 A	..Slide rule tape
58 CF	..Paper and carriage feed	72	.Parallel axes
58 PS	..Price scales	73	..Cylinder
58 P	..Print		

74	..Disk	61 GM	.Geometrical
75 R	...Key operated	61 J	.Miles per gallon
75 T	....Thomas-type machines	61 K	.Partial product wherein result is obtained in (one) summation
76	..Gear	61 P	.Polynomial
77	.Single axis	61 L	.Variators - change speed gear devices
78 R	..Concentric disk	61 M	.Volume and price computers
78 A	...Adders	61 NV	.Navigational
78 F	...Financial	61 PS	.Computing scales
78 G	...Games	61 PA	.Mechanical input-output
78 M	...Mathematics	61 PB	.Input-output with storage
78 N	...Navigation	61 PC	.Input-output from racks to computer
78 RC	...Rhythm calculators	61 PD	.Input-output from register to computer
79	..Cylinder	61 PE	.Input-output from keyboard to computer
79.5	...Slide rules	61 PF	.Input-output from typewriter to computer
80	...Keyless	61 PG	.Electrical from computer to adding machine
81 R	....Lever operated	61 PH	.Input-output electrical from calculator to typewriter
81 A	.....Odner type	61 PJ	.Input-output electrical from computer to card or tape
82 R	...Key operated	61 PK	.Input-output calculator to indicator, printer, etc.
82 C	....Comptometer	61 PL	.Storage medium conversion
82 FK	....Five key	61 PM	.Interconnection, sequencing and programming
82 TK	....Ten key	61 S	.Transportation
82 MK	....More than ten keys	61 T	.Transportation balance computers
82 SK	....Single key operated multiplying	61 V	.Transportation time-distance schedules
82 K	....Key set	90	PEG TALLY BOARDS
83	..Disk; dial and hand	102	TYPEWRITER WORD COUNTERS
84	...Slide rules	94 R	LIQUID REGISTERS
85 R	..Tabular	94 A	.Volume and price
86	..Belt	98 R	PACKAGE OPERATED
87 R	..Cylinder	98 A	.Reactive package
87 A	..Computing and weighing scales	98 B	.Package operated switch
88 R	..Disk	98 C	.Interrupted radiant energy ray
88 F	...Financial	100	REGISTERING BOXES
88 G	...Games	99 R	PLATFORM OPERATED
88 M	...Mathematics	99 A	.Platform actuated traffic counters
88 N	...Navigation	101	STAMP
88 RC	...Rhythm calculators	93	GATE AND TURNSTILE OPERATED
89 R	..Sheet	95 R	ODOMETERS
89 A	...Computing and weighing scales	96	.Details
85 FC	..Rhythm cycle (fertility)	97	.Trip and total
61 A	.Miscellaneous	95 A	.Excess speed
61 B	..Tabular	95 B	.Hub
61 C	..Integrating		
61 D	..Chart integrators		
61 DP	..Decimal point indicators		
61 E	..Mean or average computers		
61 F	..Multiplying machine - miscellaneous		
61 FA	..Precomputed products		
61 FB	..Variator with counter		
61 FC	..Variator with accumulator		
61 FD	..Partial products		
61 FE	..Successive addition		
61 G	..Odds computers		

95 C	.Odometers, pendulum type	132 R	WITH CONTROL MEANS OPERABLE ON PREDETERMINED REGISTER READING
103	ROTATION COUNTERS	132 A	.Predetermined count, self- resetting
103.5 R	.Comparing	132 E	.Electrical
103.5 E	..Extensometers	133 R	TRANSFER MECHANISM
104	.Timing devices	134	.Cam and lever
105	PEDOMETERS	135	.Deep notch
123	BALL BUTTON OR PUSH BUTTON INDICATOR	136	.Differential gears
124	BAR AND SCALE	137	.Independent actuator
125	BELT	138	..Successive
127	PIVOTED INDICATOR	139 R	.Intermediate pinion
106	ANGLED AXES	139 A	..Internal pinion
107	SPIRAL	140	.Side tooth
108	PARALLEL AXES	141	..Lock
109	.Gear	142	.Traveling pawl
110	.Cylinder	143	..Side action
111	.Dial and disk	133 A	.Electrical
112	.Dial and hand	144 R	ZERO-SETTING DEVICES
113	.Disk	144 DM	.Disconnected member
114	..Hand operated	144 M	.Miscellaneous
115	SINGLE AXIS	144 PN	.Pawl and notch
116	.Concentric disk	144 ME	.Magnetic, electromagnetic, and electric motor reset
117 R	.Cylinder	144 C	.Complement
118	..Single cylinder	144 HC	.Heart cam
117 A	..Manually operated	144 D	.Dispensing
119	.Differential gears	144 S	.Shaft set, miscellaneous
	.Dial and hand	144 SS	.Separate shaft
120	..Multiple hand	144 SM	.Shaft movable
121	..Single hand	144 SP	.Spring
122	.Disk	144 MG	.Mutilated gear
91 R	OPERATING DEVICES	144 TP	.Traveling pawl
91 PR	.Plural registers	144 ET	.Elapsed time registering
91 A	.Double acting pawl escapement with double arm pawl	144 MA	.Maximum demand
91 B	.Billiards and pool	144 B	.Rake reset
91 C	.Photograph	144 EA	.External mechanism only with or without drive disconnect
91 D	.Time interval totals	144 E	.Electrical
91 E	.Telephone	144 TB	.Total printing
91 F	.Pressure and vacuum	145 R	KEYBOARDS
91 G	.Summation	146	.Auxiliary
91 H	.Inertia, speed and distance indicator	145 A	.With total transfer to keyboard or the like
91 J	.Register key		
91 K	.Register ball actuated		
91 L	.Mechanical store		
91 M	.Magnetic		
128	ALARM MECHANISM		
130 R	LOCKING MECHANISM		
130 KD	.Incomplete key depression		
130 TC	.Typewriter computing		
131 R	OVERTHROW PREVENTERS	<u>CROSS-REFERENCE ART COLLECTIONS</u>	
131 FD	.Frictional detent	900	MEANS TO AFFIX BAR CODE (E.G., ATTACHING, ETCHING, COATING, PRINTING, ETC.)
131 M	.Miscellaneous		
131 JA	.Jamming action		

901 **BAR CODE READER SPECIALIZED TO
 READ CODE ON A HIGHLY
 REFLECTIVE SURFACE**

FOREIGN ART COLLECTIONS

FOR 000 CLASS-RELATED FOREIGN DOCUMENTS

Any foreign patents or non-patent literature from subclasses that have been reclassified have been transferred directly to FOR Collections listed below. These Collections contain ONLY foreign patents or non-patent literature. The parenthetical references in the Collection titles refer to the abolished subclasses from which these Collections were derived.

CODED RECORD SENSORS (235/435)

.Particular sensor structure
 (235/439)
..Optical (235/454)
FOR 100 ...Bar code (235/462)
FOR 101 ...Bar with detection (235/463)
FOR 102 ...Radially configured (235/464)
FOR 103 ...Color (235/465)
FOR 104 ...Timing (235/466)
FOR 105 ...Rotating prisms or mirrors
 (235/467)

CODED RECORD SENSORS (235/435)

.Particular sensor structure
 (235/439)
..Optical (235/454)
FOR 106 ...Hand held (235/472)