

CLASSES WITHIN THE U.S. CLASSIFICATION SYSTEM

Arranged by Related Subjects

Main Groups

- GROUP I. CHEMICAL AND RELATED ARTS
  
- GROUP II. COMMUNICATIONS, RADIANT ENERGY, WEAPONS,  
ELECTRICAL, AND COMPUTER ARTS
  
- GROUP III. BODY TREATMENT AND CARE, HEATING AND COOLING,  
MATERIAL HANDLING AND TREATMENT, MECHANICAL  
MANUFACTURING, MECHANICAL POWER, STATIC, AND  
RELATED ARTS
  
- GROUP IV. INDUSTRIAL DESIGNS

**Note: In the following lists, classes preceded by an asterisk (e.g., \*430) appear more than once. Subject titles used may differ from official class titles.**

**Note: Subclass ranges in this listing of related classes reflect inclusive ranges as determined by their arrangement in the Manual of Classification; these ranges are not always in increasing sequential numerical order.**

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
<b>SUPERCONDUCTIVITY; LIFE AND AGRICULTURAL SCIENCES AND TESTING METHODS</b>		430*	RADIATION IMAGERY CHEMISTRY: PROCESS, COMPOSITION, OR PRODUCT THEREOF
Note: Specific lines or relationships between classes and subclasses as set out in the definitions and notes of the classes and subclasses involved are to be followed in the event of conflict with this list.		210*	LIQUID PURIFICATION OR SEPARATION /500.1-510.1, Filter material (compositions or materials for filtering).
505	SUPERCONDUCTOR TECHNOLOGY: APPARATUS, MATERIAL, PROCESS	55*	GAS SEPARATION /522-528, Specific media material.
800	MULTICELLULAR LIVING ORGANISMS AND UNMODIFIED PARTS THEREOF AND RELATED PROCESSES	51*	ABRASIVE TOOL MAKING PROCESS, MATERIAL, OR COMPOSITION
504	PLANT PROTECTING AND REGULATING COMPOSITIONS	429*	CHEMISTRY: ELECTRICAL CURRENT PRODUCING APPARATUS, PRODUCT, AND PROCESS
424 & 514	DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS	136	BATTERIES: THERMOELECTRIC AND PHOTOELECTRIC
71	CHEMISTRY: FERTILIZERS	428*/	STOCK MATERIALS OR 1.1-223 MISCELLANEOUS ARTICLES
435	CHEMISTRY: MOLECULAR BIOLOGY AND MICROBIOLOGY	442	FABRIC (WOVEN, KNITTED, OR NONWOVEN TEXTILE OR CLOTH, ETC.)
436	CHEMISTRY: ANALYTICAL AND IMMUNOLOGICAL TESTING	428*	STOCK MATERIALS OR MISCELLANEOUS ARTICLES /292.1-543
426	FOODS OR EDIBLE MATERIAL: PROCESSES, COMPOSITIONS, AND PRODUCTS	<b>COMPOSITIONS AND SYNTHETIC RESINS; CHEMICAL COMPOUNDS</b>	
<b>STOCK MATERIALS; ARTICLES (E.G., LAYERED PRODUCTS, FILTERS, BATTERIES)</b>		508	SOLID ANTI-FRICTION DEVICES, MATERIALS THEREFOR, LUBRICANT OR SEPARANT COMPOSITIONS FOR MOVING SOLID SURFACES, AND MISCELLANEOUS MINERAL OIL COMPOSITIONS
503	RECORD RECEIVER HAVING PLURAL, INTERACTIVE LEAVES OR A COLORLESS COLOR FORMER, METHOD OF USE, OR DEVELOPER THEREFOR	44	FUEL AND RELATED COMPOSITIONS
148*	METAL TREATMENT /33-33.6, Barrier layer stock material, P-N type. /400-442 (Stock materials of diverse types; see subclass definition.)	148*	METAL TREATMENT /22-30, Compositions (employed in the treatment of solid metal, e.g., fluxes, protective paint on localized areas during carburizing or nitriding treatments).

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
252*	COMPOSITIONS /2-8.05, Fire-Extinguishing /601-611, Fire Retarding	106*	COMPOSITIONS: COATING OR PLASTIC /600-316 (Alkali metal silicate containing (e.g., Portland cement, water glass); all the rest of the class subject matter.)
507	EARTH BORING, WELL TREATING, AND OIL FIELD CHEMISTRY	75*	SPECIALIZED METALLURGICAL PROCESSES, COMPOSITIONS FOR USE THEREIN, CONSOLIDATED METAL POWDER COMPOSITIONS, AND LOOSE METAL PARTICULATE MIXTURES /300-254, Compositions
252*	COMPOSITIONS /8.57-88.2 (Compositions of various specified special uses or functions.)	420*	ALLOYS OR METALLIC COMPOSITIONS
510	CLEANING COMPOSITIONS FOR SOLID SURFACES, AUXILIARY COMPOSITIONS THEREFOR, OR PROCESSES OF PREPARING THE COMPOSITIONS	518*	CHEMISTRY: FISCHER-TROPSCH PROCESSES; OR PURIFICATION OR RECOVERY OF PRODUCTS THEREOF
252*/	COMPOSITIONS /175-194 (Compositions of various specified special uses or functions.)	<b>520-528* Series of Classes: SYNTHETIC RESINS AND NATURAL RUBBERS</b>	
502	CATALYST, SOLID SORBENT, OR SUPPORT THEREFOR: PRODUCT OR PROCESS OF MAKING	521	Ion-Exchange Polymers, Cellular Products, Waste Polymer Recovery
252*	COMPOSITIONS /478-193, 380-407 (Compositions of various specified special uses or functions.) (See schedule for details.)	522	. Compositions to be polymerized or modified by wave energy wherein said composition contains a rate-affecting material; or processes of preparing or treating a solid polymer utilizing wave energy.
252*	COMPOSITIONS /408.1-183.16 (Compositions of various specified special uses or functions.)	523 & 524	Processes of preparing a desired or intentional composition of at least one nonreactant material and at least one solid polymer or specified intermediate condensation product, or product thereof.
8*	BLEACHING AND DYEING; FLUID TREATMENT AND CHEMICAL MODIFICATION OF TEXTILES AND FIBERS	525	Various preformed reaction products mixed with ethylenically unsaturated reactant; mixing plural solid polymers or chemically treating solid polymer, or product thereof.
106*	COMPOSITIONS: COATING OR PLASTIC /1.05-38.9 (Metal depositing; coating repellent; polishes; saturating or indurating; frost or ice preventive; corrosion inhibiting coating composition; hectographic or copying; containing fireproofing or biocidal agent; marking (e.g., inks); erasable surface; leak stopping; stains; dental; tractive or friction surface; sound recording; shoe filling; molds and mold coating compositions.)	526	Reaction zone features, and polymers from only ethylenic monomers or processes of polymerizing, polymerizable compositions containing only ethylene monomers as reactants or processes of preparing.
501	COMPOSITIONS: CERAMIC	527	Solid polymers from specialized reactants (e.g., various cellular materials, protein, carbohydrate, tannin, lignin, coal, bituminous, natural resins), processes of preparing.
		528	Solid polymers from various specified starting materials, or processes of preparing, and

Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.

Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
	treating polymer containing material or treating a solid polymer or a resinifiable intermediate condensation product.	530	CHEMISTRY: NATURAL RESINS OR DERIVATIVES; PEPTIDES OR PROTEINS; LIGNINS OR REACTION PRODUCTS THEREOF
520	SYNTHETIC RUBBERS OR NATURAL RUBBERS /1 (miscellaneous subclass, i.e., synthetic resins or natural rubbers not elsewhere provided for anywhere in the USPCS.)	930	PEPTIDE OR PROTEIN SEQUENCE (Note: This is a Cross-Reference Art Collection and does not accept applications.)
208*	MINERAL OILS: PROCESSES AND PRODUCTS /1-2, 14-23 (Mineral oil compositions.)	<b>532-570, Series of Classes: ORGANIC COMPOUNDS.</b>	
512	PERFUME COMPOSITIONS	534	. Radioactive or Rare Earth Metal Compounds; Azo and Diazo Compounds.
516	COLLOID SYSTEMS AND WETTING AGENTS; SUBCOMBINATIONS THEREOF; PROCESSES OF MAKING, STABILIZING, BREAKING, OR INHIBITING	536	. Carbohydrates or derivatives (e.g., pectin, glycosides, RNA, DNA, cellulose, starch, polysaccharides, etc.).
252*	COMPOSITIONS /363.5, 367.1, 372+, 378 (All of the various compositions of non-special uses or functions in Class 252. (See schedule for details.)	540+	. Heterocyclic carbon compounds; steroidal hetero compounds; four-membered lactams, azaporphyrins, nitrogen hetero rings of more than six members.
423*	CHEMISTRY OF INORGANIC COMPOUNDS /265-275 (Compositions perfecting inorganic compounds.)	544	. Hetero ring is six-membered having two or more ring hetero atoms of which at least one is nitrogen (e.g., selenazines, etc.).
127*	SUGAR, STARCH, AND CARBOHYDRATES /29-33	546	. Six-membered ring with one hetero nitrogen and five carbons.
585*	CHEMISTRY OF HYDROCARBON COMPOUNDS /1-14, 240-242, Hydrocarbon mixtures	548	. Five-, four-, or three-membered nitrogen hetero ring compounds.
252*	COMPOSITIONS /1, Miscellaneous (i.e., compositions not elsewhere provided for anywhere in the USPCS.)	549	. Compounds containing sulfur or oxygen hetero ring compounds.
423*	CHEMISTRY OF INORGANIC COMPOUNDS (except subclasses 265-275)	552	. Azides. Triphenylmethanes, quinones, hydroquinones, steroids.
		554	. Fatty compounds having an acid moiety which contains the carboxyl of a carboxylic acid, salt, ester, or amide group bonded directly to one end of an acyclic chain of at least seven (7) uninterrupted carbons.
		556	. Heavy metal, aluminum, or silicon organic compounds.
		558	. Esters
		560	. Esters
		562	. Organic acids (e.g., carboxylic, sulphonic), acid halides, acid anhydrides, Selenium or Tellurium compounds.)
		564	. Amino nitrogen containing compounds (e.g., urea, sulfonamides, nitrosamines, oxyamines, etc., and salts thereof).
		568	. Boron, Phosphorus, Sulfur, or Oxygen compounds

Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.

Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
570	ORGANIC COMPOUNDS -- PART OF THE CLASS 532-570 SERIES . Halogen containing organic compounds	419	POWDER METALLURGY PROCESSES
260*	CHEMISTRY OF CARBON COMPOUNDS /665 . C-metal (light metal bonded directly to carbon) (e.g.; Grignard type, Beryllium containing, 1, 4-disodium naphthalene, phenyl magnesium chloride).	148*	METAL TREATMENT / 95-714, Processes of modifying or maintaining the internal physical structure (i.e., microstructure) or chemical properties of metal, processes of reactive coating of metal and processes of chemical-heat removing (e.g., flame-cutting) or burning of metal. (However, if metal casting, fusing bonding, machining, or working is involved, there is a requirement of significant heat treatment as described in Section III, A, of the Class 148 definition.)
585*	CHEMISTRY OF HYDROCARBON COMPOUNDS	75*	SPECIALIZED METALLURGICAL PROCESSES, COMPOSITIONS FOR USE THEREIN, CONSOLIDATED METAL POWDER COMPOSITIONS AND LOOSE METAL PARTICULATE MIXTURES /330-end
987	ORGANIC COMPOUNDS CONTAINING A BI, SB, AS, or P ATOM OR CONTAINING A METAL ATOM OF THE 6 <sup>TH</sup> OR 8 <sup>TH</sup> GROUP OF THE PERIODIC SYSTEM (Note: This is a Cross-Reference Art Collection and does not accept applications.)	205*	ELECTROLYSIS: PROCESSES, COMPOSITIONS USED THEREIN, AND METHODS OF PREPARING THE COMPOSITIONS
260*	CHEMISTRY OF CARBON COMPOUNDS /1, MISCELLANEOUS (i.e., carbon compounds not elsewhere provided for anywhere in the USPCS).	204*	CHEMISTRY: ELECTRICAL AND WAVE ENERGY
<b>CHEMICAL PROCESSING TECHNOLOGIES: PROCESSES AND APPARATUS (E.G., WAVE ENERGY, METALLURGY, SEPARATORY CONTACTING)</b>		266	METALLURGICAL APPARATUS
438	SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS	65	GLASS MANUFACTURING
117	SINGLE-CRYSTAL, ORIENTED-CRYSTAL, AND EPITAXY GROWTH PROCESSES; NON-COATING APPARATUS THEREFOR	264	PLASTIC AND NONMETALLIC ARTICLE SHAPING OR TREATING: PROCESSES
216	ETCHING A SUBSTRATE: PROCESSES	162	PAPER MAKING AND FIBER LIBERATION
156	ADHESIVE BONDING AND MISCELLANEOUS CHEMICAL MANUFACTURE	48	GAS: HEATING AND ILLUMINATING
427	COATING PROCESSES (See also Group III, Class 101 for printing apparatus.)	208*	MINERAL OILS: PROCESSES AND PRODUCTS (Except subclasses 1-2, 14-23)
118	COATING APPARATUS	196	MINERAL OILS: APPARATUS

Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.

Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
127*	SUGAR, STARCH, AND CARBOHYDRATES /1-28, 34-71 (Apparatus and processes peculiar to the manufacture of carbohydrates; extraction, urification, and crystallization of sugars; extraction, purification, and treatment of starch; manufacture of sugars by hydrolysis of carbohydrates.)	201	DISTILLATION: PROCESSES, THERMOLYTIC
		202	DISTILLATION: APPARATUS
		203	DISTILLATION: PROCESSES, SEPARATORY
134*	CLEANING AND LIQUID CONTACT WITH SOLIDS /1-42 (Processes.) (See also Group III, Class 134 for apparatus.)	159	CONCENTRATING EVAPORATORS
		210*	LIQUID PURIFICATION OR SEPARATION (except subclasses 500.1-510.1) (See STOCK MATERIALS: ARTICLES for filter material.)
422	CHEMICAL APPARATUS AND PROCESS DISINFECTING, DEODORIZING, PRESERVING, OR STERILIZING	23	CHEMISTRY: PHYSICAL PROCESSES
95	GAS SEPARATION: PROCESSES	588	HAZARDOUS OR TOXIC WASTE DESTRUCTION OR CONTAINMENT
96	GAS SEPARATION: APPARATUS		
55*	GAS SEPARATION (except subclasses 522-528)		
261	GAS AND LIQUID CONTACT APPARATUS		

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
505*	SUPERCONDUCTOR TECHNOLOGY: APPARATUS, MATERIAL, PROCESS (Involving Material Superconducting above 30k)	375	. Pulse or Digital Communications
		455	. Telecommunications
376	INDUCED NUCLEAR REACTIONS: PROCESSES, SYSTEMS, AND ELEMENTS	341	. Coded Data Generation or Conversion
976	NUCLEAR TECHNOLOGY (Note: This is a Cross-Reference Art Collection and does not accept applications)	367	. Communications, Electrical: Acoustic Wave Systems and Devices
		334	. Tuners
380	CRYPTOGRAPHY		
		332	. Modulators
340	COMMUNICATIONS: ELECTRICAL		
	. Television	329	. Demodulators
725	. Interactive video distribution systems	116	SIGNALS AND INDICATORS
386	. Television Signal Processing for Dynamic Recording or Reproducing		<b>CALCULATORS, COMPUTERS, OR DATA PROCESSING SYSTEMS</b>
		714	ERROR DETECTION/CORRECTION AND FAULT DETECTION/RECOVERY
358	. Facsimile and Static Presentation Processing		
		708*	ELECTRICAL COMPUTERS: ARITHMETIC PROCESSING AND CALCULATING /530-534 (arithmetical error detection or correction)
382	. Image Analysis		
		235*	REGISTERS /375-386 (Systems Controlled by Data Bearing Records)
345	. Computer Graphics Processing, Operator Interface Processing, and Selective Visual Display Systems		
		235*	REGISTERS /400-418 (Ordnance or Weapon System Computers) (See Section II for ammunition and weapons in general.)
342	. Communications: Directive Radio Wave Systems and Devices (e.g., Radar, Radio Navigation)		
		235*	REGISTERS /419-434
343	. Communications: Radio Wave Antennas		
		701	DATA PROCESSING: VEHICLES, NAVIGATION, AND RELATIVE LOCATION
370	. Multiplex Communications		
		702	DATA PROCESSING: MEASURING, CALIBRATING, OR TESTING
381	. Electrical Audio Signal Processing Systems and Devices		
379	. Telephonic Communications		
178	. Telegraphy		

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
717	DATA PROCESSING: SOFTWARE DEVELOPMENT, INSTALLATION, AND MANAGEMENT	377	ELECTRICAL PULSE COUNTERS, PULSE DIVIDERS, OR SHIFT REGISTERS: CIRCUITS AND SYSTEMS
704	DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS, LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION	902	ELECTRONIC FUNDS TRANSFER
		235*	REGISTERS /61-(Mechanical Calculators)
705	DATA PROCESSING: FINANCIAL, BUSINESS PRACTICE, MANAGEMENT, OR COST/PRICE DETERMINATION	<b>INFORMATION STORAGE</b>	
		369	DYNAMIC INFORMATION STORAGE OR RETRIEVAL
706	DATA PROCESSING: ARTIFICIAL INTELLIGENCE	360	DYNAMIC MAGNETIC INFORMATION STORAGE OR RETRIEVAL
707	DATA PROCESSING: DATABASE AND FILE MANAGEMENT, DATA STRUCTURES, OR DOCUMENT PROCESSING	365	STATIC INFORMATION STORAGE AND RETRIEVAL
		235*	REGISTERS
715	DATA PROCESSING: PRESENTATION PROCESSING OF DOCUMENT, APPROPRIATE SUBCLASSES FOR DOCUMENT PRESENTATION PROCESSING	347	INCREMENTAL PRINTING OF SYMBOLIC INFORMATION
716	DATA PROCESSING: DESIGN AND ANALYSIS OF CIRCUIT OR SEMICONDUCTOR MASK	346	RECORDERS
708	ELECTRICAL COMPUTERS: ARITHMETIC PROCESSING AND CALCULATING	<b>MEASURING, TESTING, PRECISION INSTRUMENTS</b>	
709	ELECTRICAL COMPUTERS AND DIGITAL PROCESSING SYSTEMS: MULTIPLE COMPUTER OR PROCESS COORDINATING	(See also Group I, Class 436, Chemistry: Analytical and Immunological Testing.)	
		73	MEASURING AND TESTING
710	ELECTRICAL COMPUTERS AND DIGITAL DATA PROCESSING SYSTEMS: INPUT/OUTPUT	324	. Electricity: Measuring and Testing
711	ELECTRICAL COMPUTERS AND DIGITAL PROCESSING SYSTEMS: MEMORY	250*	Radiant Energy (Radio and Microwave /250 Absorption Wavemeters)
712	ELECTRICAL COMPUTERS AND DIGITAL PROCESSING SYSTEMS: PROCESSING ARCHITECTURES AND INSTRUCTION PROCESSING (E.G., PROCESSORS)	356	. Optics: Measuring and Testing
		368	. Horology: Time Measuring Systems or Devices
713	ELECTRICAL COMPUTERS AND DIGITAL PROCESSING SYSTEMS: SUPPORT	968	. Horology (Cross-Reference Art Collection)
		(Note: This is a Cross-Reference Art Collection and does not accept applications)	

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
374 .	Thermal Measuring and Testing	984 .	MUSICAL INSTRUMENTS (Note: This is a Cross-Reference Art Collection and does not accept applications)
177 .	Weighing Scales	181	ACOUSTICS
33 .	Geometrical Instruments	361*	ELECTRICITY: ELECTRICAL SYSTEMS AND DEVICES (Nonelectrical device with electrical operation or control is classified with nonelectrical device.)
250*	RADIANT ENERGY (See also Group I, Class 204, Chemistry: Electrical and Wave Energy.)		
378 .	X-ray or Gamma Ray Systems or Devices		
372	COHERENT LIGHT GENERATORS		<b>ELECTRICITY, HEATING</b>
385	OPTICAL WAVEGUIDES	219 .	Electric Heating (See also Heating and Cooling, in Group III, for nonelectric heating)
349	LIQUID CRYSTAL CELLS, ELEMENTS AND SYSTEMS	392 .	Electric Resistance Heating Devices
359	OPTICS: SYSTEMS (INCLUDING COMMUNICATION) AND ELEMENTS	373 .	Industrial Electric Heating Furnaces
398	OPTICAL COMMUNICATION		<b>ELECTRO-MECHANICAL SYSTEMS</b>
351	OPTICS: EYE EXAMINING, VISION TESTING AND CORRECTING	290 .	Prime-Mover Dynamo Plants (See also Group III, Motors, Engines, Pumps.)
352	OPTICS: MOTION PICTURES	318 .	Electricity: Motive Power Systems
396	PHOTOGRAPHY (See Class 430, Radiation Imagery Chemistry: Process, Composition, or Product Thereof, in Group I.)	388 .	Electricity: Motor Control Systems
355	PHOTOCOPYING	187 .	Elevator, Industrial Lift Truck, or Stationary Lift /247, 248, 277 -299, 316, 317, 380-399, For Vehicle (electric control) (See also Group III, Class 187.)
399 .	Electrophotography		
353	OPTICS: IMAGE PROJECTORS		
362	ILLUMINATION		
84	MUSIC (See also Class 116, Signals and Indicators, subclasses 137 through 172; Class 340, Communications: Electrical, subclasses 384.1+.)		

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*



<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
42	. Firearms		
102	. Ammunition and Explosives		
149	. Explosive and Thermic Compositions or Charges		
86	. Ammunition and Explosive-Charge Making		

---

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

Class

Subject

Class

Subject

(This page was intentionally left blank.)

---

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
505*	SUPERCONDUCTOR TECHNOLOGY: APPARATUS, MATERIAL, PROCESS	112	. Sewing
<b>BODY TREATMENT CARE, ADORNMENT</b> (See also Group I, Class 424, Drug, Bio-Affecting and Body Treating Compositions.)		<b>PLANT AND ANIMAL HUSBANDRY</b> (See also Class 100, Presses, for balers; Class 289, Knots and Knot Tying; Class 460, Crop Threshing or Separating.)	
433	. Dentistry	449	. Bee Culture
623	. Prosthesis (i.e., Artificial Body Members), Parts Thereof, or Aids and Accessories Therefor	452	. Butchering
128	. Surgery	43	. Fishing, Trapping, and Vermin Destroying
600	. Surgery	47	. Plant Husbandry
601	. Surgery: Kinesitherapy	119	. Animal Husbandry
602	. Surgery: Splint, Brace, or Bandage	54	. . Harness
604	. Surgery	168	. . Farriery
606	. Surgery	231	. . Whips and Whip Apparatus
607	. Surgery: Light, Thermal, and Electrical Application	<b>TEACHING</b>	
132	. Toilet	434	. Education and Demonstration
63	. Jewelry	40	. Card, Picture, and Sign Exhibiting
27	. Undertaking	472	AMUSEMENT DEVICES
<b>APPAREL AND RELATED ARTS</b>		463	. Amusement Devices: Games
2	. Apparel	473	. . Games Using Tangible Projectile
223	. . Apparel Apparatus	273	. . Amusement Devices: Games
450	. . Foundation Garments	446	. Amusement Devices: Toys
36	. Boots, Shoes, and Leggings	124	. Mechanical Guns and Projectors
12	. . Boot and Shoe Making	482	. Exercise Devices
69	. Leather Manufactures	99*	FOODS AND BEVERAGES: APPARATUS /275-450 (See also Group I, Class 426, for food compositions and processes.)

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
<b>HEATING, COOLING</b>		229	. Envelopes, Wrappers, and Paperboard Boxes
(See also Group II, Class 219, for electric heating.)		150	. Purses, Wallets, and Protective Covers
62	. Refrigeration	383	. Flexible Bags
237	. Heating Systems	217	. Wooden Receptacles
236	. Automatic Temperature and Humidity Regulation	248	SUPPORTS
432	. Heating	5	. . Beds
122	. Liquid Heaters and Vaporizers	297	. . Chairs and Seats
126	. Stoves and Furnaces	211	. . Supports: Racks
431	. Combustion	108	. . Horizontally Supported Planar Surfaces
110*	. . Furnaces (Solid or Combined Fuels)	<b>CLOSURES, PARTITIONS, PANEL</b>	
165	. Heat Exchange	(Building and receptacle classes for other closures, partitions, and panels)	
<b>BUILDINGS</b>		267*	. Spring Devices (Support Type) / 80-112
135	. Tent, Canopy, Umbrella, or Cane	Note. See also:	
109	. Safes, Bank Protection, or a Related Device	(1) 267/2-68 and 140.11-141.7	
52	. Static Structures (e.g., Buildings)	(2) 267/1.5, 69-140, and 142-182	
14	. . Bridges	49	. Movable or Removable Closures
404	. . Road Structure, Process, or Apparatus	160	. Flexible or Portable Closure, Partition, or Panel
182	. . Fire Escape, Ladder, or Scaffold	256	. Fences
220	RECEPTACLES	<b>TEXTILES</b>	
312	. Supports: Cabinet Structure	8*	. Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers /147-159 (See also Group I for processes and compositions.)
190	. Trunks and Hand-Carried Luggage	289	. Knots and Knot Tying
206	. Special Receptacle or Package		
215	. Bottles and Jars		

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
28	. Textiles: Manufacturing	141	. Fluent Material Handling, with Receiver or Receiver Coacting Means
26	. . Textiles: Cloth Finishing	169	. Fire Extinguishers
66	. . Textiles: Knitting	291	. Track Sanders
87	. . Textiles: Braiding, Netting, and Lace Making	239	. Fluid Sprinkling, Spraying, and Diffusing
139	. . Textiles: Weaving	222	. Dispensing
57	. . Textiles: Spinning, Twisting, and Twining	221	. . Article Dispensing
19	. . Textiles: Fiber Preparation	232	. Deposit and Collection Receptacles
<b>EARTH WORKING AND AGRICULTURAL MACHINERY</b>		414	MATERIAL OR ARTICLE HANDLING
405	. Hydraulic and Earth Engineering	258	. Railway Mail Delivery
299	. Mining or In Situ Disintegration of Hard Material	186	. Merchandising
166	. Wells	406	. Conveyors: Fluid Current
175	. Boring or Penetrating the Earth	212	. Traversing Hoists
111	. Planting	198	. Conveyors: Power-Driven
171	. Unearthing Plants or Buried Objects	187*	. Elevators, Industrial Lift Truck or Stationary Lift for Vehicle /200-246, 249-298, 300-315, 318-379, 400-414 (schedule sequence) (See also Group II, Electric control.)
37	. Excavating	193	. Conveyors, Chutes, Skids, Guides, and Ways
56	. Harvesters	224	. Package and Article Carriers
172	. Earth Working	294	. Handling: Hand and Hoist-Line Implements
194	CHECK-ACTUATED CONTROL MECHANISMS	901	. Robots (Note: This is a Cross-Reference Art Collection and does not accept applications.)
<b>DISPENSING</b>		137	FLUID HANDLING
(For the distribution of this art, see notes to definitions of Class 222, Dispensing, and Class 220, Receptacles.)			
453	. Coin Handling		

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
454	. Ventilation	295	. . Railway Wheels and Axles
4	. Baths, Closets, Sinks, and Spittoons	152	. Resilient Tires and Wheels
138	. Pipes and Tubular Conduits	305	. Wheel Substitutes for Land Vehicles
251	. Valves and Valve Actuation	213	. Railway Draft Appliances
<b>VEHICLES</b>		278	. . Land Vehicles: Animal Draft Appliances
244	. Aeronautics /1-13, 15-153A (schedule sequence) (See also Group II, Class 244/14, for aerial torpedoes.)	293	. Vehicle Fenders
114	. Ships /255-19 and 26-382 (schedule sequence) (See also Group II, Class 114/20.1-25, for ship launched torpedoes.)	267*	. Spring /2-68, 140.11-141.7 (schedule sequence)  Note. See also: (1) 267/80-112 (2) 267/1.5, 69-140 and 142-182
441.	. Buoys, Rafts, and Aquatic Devices	410	FREIGHT ACCOMMODATION ON FREIGHT CARRIER
440	. . Marine Propulsion	<b>MOTORS, ENGINES, PUMPS</b> (See also Group II, Electricity, for electric motors.)	
191	. Electricity: Transmission to Vehicles	60	. Power Plants /200.1-204, 221-721 (schedule sequence) (See also Group II for chemical reaction motors, subclasses 205-220.)
104	. Railways	123	. Internal-Combustion Engines
246	. . Railway Switches and Signals	417	. Pumps
105	. . Railway Rolling Stock	91	. Motors: Expansible Chamber Type
238	. . Railways: Surface Track	415	. Rotary Kinetic Fluid Motors or Pumps
280	. Land Vehicles (e.g., chassis and running gear)	416	. Fluid Reaction Surfaces (i.e., Impellers)
298	. . Land Vehicles: Dumping	185	. Motors: Spring, Weight, or Animal Powered
180	. . Motor Vehicles	418	. Rotary Expansible Chamber Devices
296	. Land Vehicles: Bodies and Tops (See Class 74, in this group, for machine element or mechanism.)	92	. Expansible Chamber Devices
301	. Land Vehicles: Wheels and Axles		

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
<b>COATING, PRINTING, AND PRINTED MATERIAL; STATIONERY, BOOKS</b>		53	. Package Making
118	. Coating Apparatus (See also Group I, Class 427, Coating Processes.)	59	. Chain, Staple, and Horseshoe Making
184	. Lubrication	76	. Metal Tools and Implements, Making
101	. Printing	79	. Button Making
400	. . Typewriting Machines	493	. Manufacturing Container or Tube from Paper; or Other Manufacturing from a Sheet or Web
199	. . Type Casting	131	. Tobacco
276	. . Typesetting	147	. Coopering
401	. Coating Implements with Material Supply	157	. Wheelwright Machines
281	. Books, Strips and Leaves	163	. Needle and Pin Making
462	. Books, Strips, and Leaves for Manifolding	227	. Elongated-Member-Driving Apparatus
283	. Printed Matter	270	. Sheet-Material Associating
<b>MANUFACTURING, ASSEMBLING, INCLUDING SOME CORRELATIVE MISCELLANEOUS PRODUCTS</b>		300	. Brush, Broom, and Mop Making
164	. Metal Founding	445	. Electric Lamp or Space Discharge Component or Device Manufacturing
266	. Metallurgical Apparatus	29*	. Metal Working (Methods) /592-559
29*	. Metal Working (General Manufacturing) /1.1-25.42, 81.01-91.8, 560, 560.1, 284		Note. See also:
	Note. See also:		(1) 29/1.1-25.42, 81.01-91.8, 560, 560.1, 284
	(1) 29/592-559		(2) 29/700-824
	(2) 29/700-824		(3) 29/650
	(3) 29/650		(4) 29/76.1-77, 33R-33T
	(4) 29/76.1-77, 33R-33T		(5) 29/213.1-283
	(5) 29/213.1-283		(schedule sequence)
	(schedule sequence)	29*	. Metal Working (Assembling Apparatus) /700-824
412	. Bookbinding: Process and Apparatus		

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
	Note. See also:	(3) 29/700-824	
	(1) 29/1.1-25.42, 81.01-91.8, 560, 560.1, 284	(4) 29/650	
	(2) 29/592-559	(5) 29/213.1-283	
	(3) 29/650	(schedule sequence)	
	(4) 29/76.1-77, 33R-33T	407 . Cutters, for Shaping	
	(5) 29/213.1-283	30 . Cutlery	
29*	. Metal Working (Plural Diverse /650 Manufacturing Apparatus)	451 . Abrading	
	Note. See also:	408 . Cutting by Use of Rotating Axially Moving Tool	
	(1) 29/1.1-25.42, 81.01-91.8, 560, 560.1, 284	82 . Turning	
	(2) 29/592-559	83 . Cutting	
	(3) 29/700-824	409 . Gear Cutting, Milling, or Planing	
	(4) 29/76.1-77, 33R-33T	125 . Stone Working	
	(5) 29/213.1-283	144 . Woodworking	
<b>CUTTING, COMMUNING, AND MACHINING</b>			
483	. Tool Changing	142 . . Wood Turning	
234	. Selective Cutting (e.g., Punching)	225 . Severing by Tearing or Breaking	
460	. Crop Threshing or Separating	72 . Metal Deforming	
241	. Solid Material Comminution or Disintegration	425 . Plastic Article or Earthenware Shaping or Treating: Apparatus (See also Group I, Class 264, Plastic and Nonmetallic Article Shaping or Treating: Processes.)	
470	. Threaded, Headed Fastener, or Washer Making: Process and Apparatus	100 . Presses	
29*	. Metal Working (Miscellaneous Machining) /76.1-77, 33R-33T	413 . Sheet Metal Container Making	
	Note. See also:	140 . Wireworking	
	(1) 29/1.1-25.42, 81.01-91.8, 560, 560.1, 284	228 . Metal Fusion Bonding	
	(2) 29/592-559	249 . Static Molds	

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
<b>MISCELLANEOUS TREATING</b> (See Group I for chemical treatment and physical separation.)		474	Endless Belt Power Transmission Systems or Component
494	. Imperforate Bowl: Centrifugal Separators	476	. Friction Gear Transmission Systems or Components
209	. Classifying, Separating, and Assorting Solids	477	. Interrelated Power Delivery Controls, Including Engine Control
366	. Agitating	492	. Roll or Roller
134*	. Cleaning and Liquid Contact with Solids /43-201 (See also Group I for cleaning processes.)	464	. Rotary Shafts, Gudgeons, Housings, and Flexible Couplings for Rotary Shafts
34	. . Drying and Gas or Vapor Contact with Solids	384	. Bearings
68	. Textiles: Fluid Treating Apparatus	173	. Tool Driving or Impacting
38	. Textiles: Ironing or Smoothing	188	. Brakes
15	. Brushing, Scrubbing, and General Cleaning	192	. Clutches and Power-Stop Control
<b>HANDLING OR STORING SHEETS, WEBS, STRANDS, AND CABLE</b>		254*	. Implements or Apparatus for Applying Pushing or Pulling Force (Force Multipliers) /1-134.7, 418-427
402	. Binder Device Releasably Engaging Aperture or Notch of Sheet	269	. Work Holders
226	. Advancing Material of Indeterminate Length	303	. Fluid-Pressure Brake and Analogous Systems
242	. Winding, Tensioning, or Guiding	16*	MISCELLANEOUS HARDWARE /2.1-220, 400-404 (See also 16/221-392)
254*	. Implements or Apparatus for Applying Pushing or Pulling Force (Cable Hauling or Strand Placing) /199-417	70	. Locks
271	. Sheet Feeding or Delivering	267*	. Spring Devices /1.5, 69-140, 142-182
74	MACHINE ELEMENT OR MECHANISM		Note. See also: (1) 267/80-112 (2) 267/2-68, 140.11, 141.7
475	. Planetary Gear Transmission Systems or Components		

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

Class      Subject

Class      Subject

**TOOLS**

7      . Compound Tools

29\*    . Metal Working (Assembling Devices)  
 /213.1-283

Note. See also:

(1) 29/1.1-25.42, 81.01-91.8, 560,  
 560.1, 284

(2) 29/592-559

(3) 29/650

(4) 29/700-824

(5) 29/76.1-77, 33R-33T

81      . Tools

403    JOINTS AND CONNECTIONS

439    . Electrical Connectors

285    . Pipe Joints or Couplings

16\*    . Miscellaneous Hardware (Hinges)

/221-392

(See also 16/2.1-220, 400-404)

279    . Chucks and Sockets

277    . Seal for a Joint or Juncture

**FASTENINGS**

292    . Closure Fasteners

24      . Buckles, Buttons, Clasps, etc.

411    . Expanded, Threaded, Driven, Headed, Tool-  
 Deformed, or Locked-Threaded Fastener

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
D1	EDIBLE PRODUCTS	D18	PRINTING AND OFFICE MACHINERY
D2	APPAREL AND HABERDASHERY	D19	OFFICE SUPPLIES; ARTISTS' AND TEACHERS' MATERIALS
D3	TRAVEL GOODS AND PERSONAL BELONGINGS AND STORAGE OR CARRYING ARTICLES	D20	SALES AND ADVERTISING EQUIPMENT
D4	BRUSHWARE	D21	GAMES, TOYS, AND SPORTS GOODS
D5	TEXTILE OR PAPER YARD GOODS; SHEET MATERIAL	D22	ARMS, PYROTECHNICS, HUNTING AND FISHING EQUIPMENT
D6	FURNISHINGS	D23	ENVIRONMENTAL HEATING AND COOLING: FLUID HANDLING AND SANITARY EQUIPMENT
D7	EQUIPMENT FOR PREPARING OR SERVING FOOD OR DRINK NOT ELSEWHERE SPECIFIED	D24	MEDICAL AND LABORATORY EQUIPMENT
D8	TOOLS AND HARDWARE	D25	BUILDING UNITS AND CONSTRUCTION ELEMENTS
D9	PACKAGES AND CONTAINERS FOR GOODS	D26	LIGHTING
D10	MEASURING, TESTING, OR SIGNALLING INSTRUMENTS	D27	TOBACCO AND SMOKERS' SUPPLIES
D11	JEWELRY, SYMBOLIC INSIGNIA, AND ORNAMENTS	D28	COSMETIC PRODUCTS AND TOILET ARTICLES
D12	TRANSPORTATION	D29	EQUIPMENT FOR SAFETY, PROTECTION, AND RESCUE
D13	EQUIPMENT FOR PRODUCTION, DISTRIBUTION, OR TRANSFORMATION OF ENERGY	D30	ANIMAL HUSBANDRY
D14	RECORDING, COMMUNICATION, OR INFORMATION RETRIEVAL EQUIPMENT	D32	WASHING, CLEANING, OR DRYING MACHINE
D15	MACHINES NOT ELSEWHERE SPECIFIED	D34	MATERIAL OR ARTICLE HANDLING EQUIPMENT
D16	PHOTOGRAPHY AND OPTICAL EQUIPMENT	D99	MISCELLANEOUS
D17	MUSICAL INSTRUMENTS		

*Note 1: Subclass ranges reflect the inclusive ranges shown in the Class Schedules. These ranges may not be in increasing, sequential numerical order.*

*Note 2: Class numbers followed by an asterisk (e.g., 250\*) indicate a class that appears more than once in this list.*

(This page was intentionally left blank.)