

## CLASSES WITHIN THE U.S. CLASSIFICATION SYSTEM

Arranged by Related Subject Matter

### 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 followed by an asterisk (e.g., 250\*) 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.

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.

<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
505*	<b>SUPERCONDUCTOR TECHNOLOGY: APPARATUS, MATERIAL, PROCESS</b> (Involving Material Superconducting above 30k)	51	.Abrasive Tool Making Process, Material, or Composition
		429	.Chemistry: Electrical Current Producing Apparatus, Product, and Process
		136	.Batteries: Thermoelectric and Photoelectric
977*	<b>NANOTECHNOLOGY</b> (Note: Does not accept applications)	428*	.Stock Material or Miscellaneous Articles /1.1-223
	<b>LIFE AND AGRICULTURAL SCIENCES AND TESTING METHODS</b>	442	.Fabric (Woven, Knitted, or Nonwoven Textile or Cloth, Etc.)
800	.Multicellular Living Organisms and Unmodified Parts Thereof and Related Processes	428*	.Stock Material or Miscellaneous Articles /292.1-543
504	.Plant Protecting and Regulating Compositions		<b>COMPOSITIONS AND SYNTHETIC RESINS; CHEMICAL COMPOUNDS</b>
424	.Drug, Bio-Affecting and Body Treating Compositions	508	.Solid Anti-Friction Devices, Materials Therefor, Lubricant or Separant Compositions for Moving Solid Surfaces, and Miscellaneous Mineral Oil Compositions
514	.Drug, Bio-Affecting and Body Treating Compositions		
71	.Chemistry: Fertilizers	44	.Fuel and Related Compositions
506	.Combinatorial Chemistry Technology: Method, Library, Apparatus	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.)
435	.Chemistry: Molecular Biology and Microbiology		
436	.Chemistry: Analytical and Immunological Testing	252*	.Compositions /2-8.05, Fire-Extinguishing /601-611, Fire Retarding
426	.Food or Edible Material: Processes, Compositions, and Products	507	.Earth Boring, Well Treating, and Oil Field Chemistry
PLT	.Plants	252*	.Compositions /8.57-88.2 (Compositions of various specified special uses or functions.)
	<b>STOCK MATERIALS; ARTICLES (E.G., LAYERED PRODUCTS, FILTERS, BATTERIES)</b>	510	.Cleaning Compositions for Solid Surfaces, Auxiliary Compositions Therefor, or Processes of Preparing the Compositions
503	.Record Receiver Having Plural Interactive Leaves or a Colorless Color Former, Method of Use, or Developer Therefor	252*	.Compositions /175-194 (Compositions of various specified special uses or functions.)
148*	.Metal Treatment /33-33.6, Barrier layer stock material, P-N type. /400-442 (Stock materials of diverse types; see subclass definition.)	502	.Catalyst, Solid Sorbent, or Support Therefor: Product or Process of Making
430	.Radiation Imagery Chemistry: Process, Composition, or Product Thereof	252*	.Compositions /478-193, 380-407 (Compositions of various specified special uses
210*	.Liquid Purification or Separation /500.1-510.1, Filter material (compositions or materials for filtering)		
55*	.Gas Separation /522-528, Specific media material.		

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<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
	or functions.) (See schedule for details.)		preparing or treating a solid polymer utilizing wave energy.
252*	.Compositions /408.1-183.16 (Compositions of various specified special uses or functions.)	523	.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	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.
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)	525	.Various preformed reaction products mixed with ethylenically unsaturated reactant; mixing plural solid polymers or chemically treating solid polymer, or product thereof.
501	.Compositions: Ceramic	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.
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.)	527	.Solid polymers from specialized reactants (e.g., various cellular materials, protein, carbohydrate, tannin, lignin, coal, bituminous, natural resins), processes of preparing.
75*	.Specialized Metallurgical Processes, Compositions for Use Therein, Consolidated Metal Powder Compositions, and Loose Metal Particulate Mixtures /300-254, Compositions	528	.Solid polymers from various specified starting materials, or processes of preparing, and treating polymer containing material or treating a solid polymer or a resinifiable intermediate condensation product.
420	.Alloys or Metallic Compositions	208*	.Mineral Oils: Processes and Products /1-2, 14-23 (Mineral oil compositions.)
518	.Chemistry: Fischer-Tropsch Processes; or Purification or Recovery of Products Thereof	512	.Perfume Compositions
<b>520-528</b>	<b>Series of Classes. Synthetic Resins or Natural Rubbers</b>	516	.Colloid Systems and Wetting Agents; Subcombinations Thereof; Processes of Making, Stabilizing, Breaking, or Inhibiting
<b>520</b>	<b>SYNTHETIC RESINS OR</b>		
	<b>NATURAL RUBBERS</b> /1 (miscellaneous subclass, i.e., synthetic resins or natural rubbers not elsewhere provided for anywhere in the USPC.)	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.)
521	.Ion-Exchange Polymers, Cellular Products, Waste Polymer Recovery.		
522	.Compositions to be polymerized or modified by wave energy wherein said composition contains a rate-affecting material; or processes of		

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423*	.Chemistry of Inorganic Compounds /265-275 (Compositions perfecting inorganic compounds.)		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.
127*	.Sugar, Starch, and Carbohydrates /29-33	556	.Heavy metal, aluminum, or silicon organic compounds
585*	.Chemistry of Hydrocarbon Compounds /1-14, 240-242, Hydrocarbon mixtures	558	.Esters
252*	.Compositions /1, Miscellaneous (i.e., compositions not elsewhere provided for anywhere in the USPCS.)	560	.Esters
423*	.Chemistry of Inorganic Compounds (except subclasses 265-275)	562	.Organic acids (e.g., carboxylic, sulphonic), acid halides, acid anhydrides, Selenium or Tellurium compounds.)
530	.Chemistry: Natural Resins or Derivatives; Peptides or Proteins; Lignins or Reaction Products Thereof	564	.Amino nitrogen containing compounds (e.g., urea, sulfonamides, nitrosamines, oxyamines, etc., and salts thereof).
930	.Peptide or Protein Sequence (Note: Does not accept applications.)	568	.Boron, Phosphorus, Sulfur, or Oxygen compounds
<b>532-570</b>	<b>Series of Classes. Organic Compounds</b>	260*	.Chemistry of Carbon Compounds /665 C-metal (light metal bonded directly to carbon)
<b>532</b>	<b>ORGANIC COMPOUNDS</b> /1 (miscellaneous subclass, i.e., organic compounds not elsewhere provided for anywhere in the USPC)		(e.g.; Grignard type, Beryllium containing, 1, 4-disodium naphthalene, phenyl magnesium chloride compounds)
534	.Radioactive or Rare Earth Metal Compounds; Azo and Diazo Compounds.	570	.Halogen containing organic compounds
536	.Carbohydrates or derivatives (e.g., pectin, glycosides, RNA, DNA, cellulose, starch, polysaccharides, etc.).	585*	.Chemistry of Hydrocarbon Compounds /15-27, 250-899
540	.Heterocyclic carbon compounds; steroidal hetero compounds; four-membered lactams, azaporphyrins, nitrogen hetero rings of more than six members.	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
544	.Hetero ring is six-membered having two or more ring hetero atoms of which at least one is nitrogen (e.g., selenazines, etc.).	260*	(Note: Does not accept applications.) .Chemistry of Carbon Compounds /1, MISCELLANEOUS (i.e., carbon compounds not elsewhere provided for anywhere in the USPCS)
546	.Six-membered ring with one hetero nitrogen and five carbons.		<b>CHEMICAL PROCESSING TECHNOLOGIES: PROCESSES AND APPARATUS (E.G., WAVE ENERGY, METALLURGY, SEPARATORY CONTACTING)</b>
548	.Five-, four-, or three-membered nitrogen hetero ring compounds.	438	.Semiconductor Device Manufacturing: Process
549	.Compounds containing sulfur or oxygen hetero ring compounds.	117	.Single-Crystal, Oriented-Crystal, and Epitaxy Growth Processes; Non-Coating Apparatus Therefor
552	.Azides. Triphenylmethanes, quinones, hydroquinones, steroids.	216	.Etching a Substrate: Processes
554	.Fatty compounds having an acid moiety which contains the carboxyl		

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156	.Adhesive Bonding and Miscellaneous Chemical Manufacture	134*	.Cleaning and Liquid Contact with Solids
427	.Coating Processes (See also Group III, Class 101 for printing apparatus.)	/1-42 (Processes)	(See also Group III, Class 134 for apparatus.)
118*	.Coating Apparatus	422	.Chemical Apparatus and Process
419	.Powder Metallurgy Processes		Disinfecting, Deodorizing, Preserving, or Sterilizing
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.)	95	.Gas Separation: Processes
		96	.Gas Separation: Apparatus
		55*	.Gas Separation (except subclasses 522-528)
		261	.Gas and Liquid Contact Apparatus
		201	.Distillation: Processes, Thermolytic
		202	.Distillation: Apparatus
		203	.Distillation: Processes, Separatory
		159	.Concentrating Evaporators
		210*	.Liquid Purification or Separation (except subclasses 500.1-510.1) (See STOCK MATERIALS: ARTICLES for filter material.)
		23	.Chemistry: Physical Processes
75*	.Specialized Metallurgical Processes, Compositions for Use Therein, Consolidated Metal Powder Compositions and Loose Metal Particulate Mixtures /330-773, processes	588	.Hazardous or Toxic Waste Destruction or Containment
205	.Electrolysis: Processes, Compositions Used Therein, and Methods of Preparing the Compositions		
204	.Chemistry: Electrical and Wave Energy		
266*	.Metallurgical Apparatus		
65	.Glass Manufacturing		
264	.Plastic and Nonmetallic Article Shaping or Treating: Processes		
162	.Paper Making and Fiber Liberation		
48	.Gas: Heating and Illuminating		
208*	.Mineral Oils: Processes and Products (except subclasses 1-2, 14-23)		
196	.Mineral Oils: Apparatus		
127*	.Sugar, Starch, and Carbohydrates /1-28, 34-71 (Apparatus and processes peculiar to the manufacture of carbohydrates; extraction, purification, and crystallization of sugars; extraction, purification, and treatment of starch; manufacture of sugars by hydrolysis of carbohydrates.)		

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<b>505*</b>	<b>SUPERCONDUCTOR TECHNOLOGY: APPARATUS, MATERIAL, PROCESS</b> (Involving Material Superconducting above 30k)	714	<b>CALCULATORS, COMPUTERS, OR DATA PROCESSING SYSTEMS</b> .Error Detection/Correction and Fault Detection/Recovery
<b>977*</b>	<b>NANOTECHNOLOGY</b> (Note: Does not accept applications.)	708*	.Electrical Computers: Arithmetic Processing and Calculating /530-534 (arithmetical error detection or correction)
<b>376</b>	<b>INDUCED NUCLEAR REACTIONS: PROCESSES, SYSTEMS, AND ELEMENTS</b>	235*	.Registers /400-418 (Ordnance or Weapon System Computers) (See Section II for ammunition and weapons in general.)
<b>976</b>	<b>NUCLEAR TECHNOLOGY</b> (Note: Does not accept applications.)	235*	.Registers /419-434
<b>380</b>	<b>CRYPTOGRAPHY</b>	700	.Data Processing: Generic Control Systems or Specific Applications
<b>340</b>	<b>COMMUNICATIONS: ELECTRICAL</b>	701	.Data Processing: Vehicles, Navigation, and Relative Location
348	.Television	702	.Data Processing: Measuring, Calibrating, or Testing
725	.Interactive video distribution systems	703	.Data Processing: Structural Design, Modeling, Simulation, and Emulation
386	.Television Signal Processing for Dynamic Recording or Reproducing	717	.Data Processing: Software Development, Installation, and Management
358	.Facsimile and Static Presentation Processing	704	.Data Processing: Speech Signal Processing, Linguistics, Language Translation, and Audio Compression/Decompression
382	.Image Analysis	705	.Data Processing: Financial, Business Practice, Management, or Cost/Price Determination
345	.Computer Graphics Processing, Operator Interface Processing, and Selective Visual Display Systems	706	.Data Processing: Artificial Intelligence
342	.Communications: Directive Radio Wave Systems and Devices (e.g., Radar, Radio Navigation)	707	.Data Processing: Database and File Management, Data Structures, or Document Processing
343	.Communications: Radio Wave Antennas	715	.Data Processing: Presentation Processing of Document, Operator Interface Processing, and Screen Saver Display Processing
370	.Multiplex Communications	716	.Data Processing: Design and Analysis of Circuit or Semiconductor Mask
381	.Electrical Audio Signal Processing Systems and Devices	708*	.Electrical Computers: Arithmetic Processing and Calculating
379	.Telephonic Communications	709	.Electrical Computers and Digital
178	.Telegraphy		
375	.Pulse or Digital Communications		
455	.Telecommunications		
341	.Coded Data Generation or Conversion		
367	.Communications, Electrical: Acoustic Wave Systems and Devices		
334	.Tuners		
332	.Modulators		
329	.Demodulators		
<b>116</b>	<b>SIGNALS AND INDICATORS</b>		

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	Processing Systems: Multiple Computer or Process Coordinating		istry: Analytical and Immunological Testing.)
718	.Electrical Computers and Digital Processing Systems: Virtual Machine Task or Process Man- agement or Task Manage- ment/Control	73 324 250*	.Measuring and Testing .Electricity: Measuring and Testing .Radiant Energy /250 Radio and Microwave Absorption Wavemeters
719	.Electrical Computers and Digital Processing Systems: Interprogram Communication or Interprocess Communication (IPC)	356 368 968	.Optics: Measuring and Testing .Horology: Time Measuring Systems or Devices .Horology (Cross-Reference Art Collection) (Note: Does not accept applica- tions)
710	.Electrical Computers and Digital Data Processing Systems: Input/Output		.Thermal Measuring and Testing .Weighing Scales .Geometrical Instruments .Radiant Energy (See also Group I, Class 204, Chemistry: Electrical and Wave Energy.)
711	.Electrical Computers and Digital Processing Systems: Memory	374 177	
712	.Electrical Computers and Digital Processing Systems: Processing Architectures and Instruction Processing (e.g., Processors)	33 250*	
713	.Electrical Computers and Digital Processing Systems: Support	378	.X-Ray or Gamma Ray Systems or Devices
726	.Information Security		.Coherent Light Generators .Optical Waveguides
377	.Electrical Pulse Counters, Pulse Dividers, or Shift Registers: Circuits and Systems	372 385 349	.Liquid Crystal Cells, Elements and Systems
902	.Electronic Funds Transfer		.Optics: Systems (Including Com- munication) and Elements
235*	.Registers /61+ (Mechanical Calculators)	359 398 351	.Optical Communications .Optics: Eye Examining, Vision Test- ing and Correcting .Optics: Motion Pictures
	<b>INFORMATION STORAGE</b>		.Photography (See Group I, Class 430, Radiation Imagery Chemistry: Process, Com- position, or Product Thereof.)
720	.Dynamic Optical Information Storage or Retrieval	352	
369	.Dynamic Information Storage or Retrieval	396	
360	.Dynamic Magnetic Information Storage or Retrieval		.Photocopying .Electrophotography .Optics: Image Projectors
G9B	.Information Storage Based on Rela- tive Movement Between Record Carrier and Transducer	355 399 353	.Illumination .Music (See also Class 116, Signals and In- dicators, subclasses 137 through 172; Class 340, Communications: Electrical, subclasses 384.1+.)
365	.Static Information Storage and Retrieval	362 84	
235*	.Registers		
347	.Incremental Printing of Symbolic Information		
346	.Recorders	984	.Musical Instruments (Note: Does not accept applica- tions)
	<b>MEASURING, TESTING, PRECISION INSTRUMENTS</b> (See also Group I, Class 436, Chem-	181	.Acoustics

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361*	.Electricity: Electrical Systems and Devices (Nonelectrical device with electrical operation or control is classified with nonelectrical device.)	322	. . . . . Devices: Consumable Electrodes
		307*	. . . . . Electricity: Single Generator Systems
			. . . . . Electrical Transmission and Interconnection Systems /1- 87, 326-157 Miscellaneous Systems
219	.Electric Heating (See also Heating and Cooling, in Group III, for nonelectric heating)	313	. . . . . Electric Lamp and Discharge Devices
392	.Electric Resistance Heating Devices	257	. . . . . Active Solid-State Devices (e.g., Transistors, Solid-State Diodes)
373	.Industrial Electric Heating Furnaces	310	. . . . . Electrical Generator or Motor Structure
	<b>ELECTRICITY, HEATING</b>	335	. . . . . Electricity: Magnetically Operated Switches, Magnets, and Electromagnets (See also Class 200, Electricity: Circuit Makers and Breakers, in this group, for mechanically actuated switches in general, and Class 337, Electricity: Electrothermally or Thermally Actuated Switches, in this group, for thermally actuated switch structures.)
290	.Prime-Mover Dynamo Plants (See also Group III, Motors, Engines, Pumps.)		. . . . . Electricity: Electrothermally or Thermally Actuated Switches (See also Class 200, Electricity: Circuit Makers and Breakers, in this group, for mechanically actuated switches in general, and Class 335, Electricity: Magnetically Operated Switches, Magnets, and Electromagnets, in this group, for magnetically actuated switch structures.)
318	.Electricity: Motive Power Systems	337	. . . . . Electricity: Electrothermally or Thermally Actuated Switches (See also Class 200, Electricity: Circuit Makers and Breakers, in this group, for mechanically actuated switches in general, and Class 335, Electricity: Magnetically Operated Switches, Magnets, and Electromagnets, in this group, for magnetically actuated switch structures.)
388	.Electricity: Motor Control Systems		. . . . . Inductor Devices
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.)	361*	. . . . . Electricity: Electrical Systems and Devices /500+ (Electrolytic Systems or Devices) (See also Group I, Class 136, Batteries: Thermoelectric and Photoelectric, and Class 204, Chemistry: Electrical and Wave Energy.)
	<b>ELECTRO-MECHANICAL SYSTEMS</b>		. . . . . Electricity: Electrical Systems and Devices /271+ (Electrostatic Capacitors)
320	.Electricity: Battery or Capacitor Charging and Discharging	338	. . . . . Electrical resistors
331	.Oscillators		
330	.Amplifiers		
307*	.Electrical Transmission or Interconnection Systems /401-424 Miscellaneous Nonlinear Reactor		
327	. . . . . Miscellaneous Active Electrical Nonlinear Devices, Circuits, and Systems		
326	. . . . . Electronic Digital Logic Circuitry		
333	. . . . . Wave Transmission Lines and Networks		
363	. . . . . Electric Power Conversion Systems		
323	. . . . . Electricity: Power Supply or Regulation Systems		
315	. . . . . Electric Lamp and Discharge Devices: Systems		
314	. . . . . Electric Lamp and Discharge		

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200	. /271+ (Electrostatic Capacitors) . Electricity: Circuit Makers and Breakers (See also Class 335, Electricity: Magnetically Operated Switches, Magnets, and Electromagnets, in this group, for magnetically actuated switches, and Class 337, Electricity: Electrothermally or Thermally Actuated Switches, in this group, for thermally actuated switches.)		
218	. High-Voltage Switches With Arc Preventing or Extinguishing Devices		
174	. Electricity: Conductors and Insulators		
<b>AMMUNITION, WEAPONS</b>			
60*	. Power Plants (chemical reaction motors) /205-220 (See also Group III, Class 60, Power Plants, generally.)		
89	. Ordnance See also Group III, Class 124, Mechanical Guns and Projectors.)		
244*	. Aeronautics and Astronautics (Aerial Torpedoes) /14 (See also Group III, Class 244, Aeronautics and Astronautics.)		
114*	. Ships (Torpedoes) /20.1-25 (See also Group III, Class 114, Ships.)		
42	. Firearms		
102	. Ammunition and Explosives		
149	. Explosive and Thermic Compositions or Charges		
86	. Ammunition and Explosive-Charge Making		

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<b>505*</b>	<b>SUPERCONDUCTOR TECHNOLOGY: APPARATUS, MATERIAL, PROCESS</b> (Involving Material Superconducting above 30k)	54	. .Harness for Working Animal
		168	. .Farriery
		231	. .Whips and Whip Apparatus
			<b>TEACHING</b>
		434	.Education and Demonstration
<b>977*</b>	<b>NANOTECHNOLOGY</b> (Note: Does not accept applications.)	40	.Card, Picture, or Sign Exhibiting
	<b>BODY TREATMENT CARE, ADORNMENT</b> (See also Group I, Class 424, Drug, Bio-Affecting and Body Treating Compositions.)	<b>472</b>	<b>AMUSEMENT DEVICES</b>
		463	.Amusement Devices: Games
		473	. .Games Using Tangible Projectile
		273	. .Amusement Devices: Games
		446	.Amusement Devices: Toys
		124	.Mechanical Guns and Projectors
		482	.Exercise Devices
433	.Dentistry	<b>99</b>	<b>FOODS AND BEVERAGES: APPARATUS</b> (See also Group I, Class 426, for food compositions and processes)
623	.Prosthesis (i.e., Artificial Body Members), Parts Thereof, or Aids and Accessories Therefor		<b>HEATING, COOLING</b> (See also Group II, Class 219, for electric heating.)
128	.Surgery	62	.Refrigeration
600	.Surgery	237	.Heating Systems
601	.Surgery: Kinesitherapy	236	.Automatic Temperature and Humidity Regulation
602	.Surgery: Splint, Brace, or Bandage	432	.Heating
604	.Surgery	122	.Liquid Heaters and Vaporizers
606	.Surgery	126	.Stoves and Furnaces
607	.Surgery: Light, Thermal, and Electrical Application	431	.Combustion
132	.Toilet	110	. .Furnaces (Solid or Combined Fuels)
63	.Jewelry	165	.Heat Exchange
27	.Undertaking		<b>BUILDINGS</b>
	<b>APPAREL AND RELATED ARTS</b>	135	.Tent, Canopy, Umbrella, or Cane
2	.Apparel	109	.Safes, Bank Protection, or a Related Device
223	. .Apparel Apparatus	52	.Static Structures (e.g., Buildings)
450	. .Foundation Garments	14	.Bridges
36	.Boots, Shoes, and Leggings	404	. .Road Structure, Process, or Apparatus
12	. .Boot and Shoe Making	182	. .Fire Escape, Ladder, or Scaffold
69	.Leather Manufactures	<b>220</b>	<b>RECEPTACLES</b>
112	.Sewing	312	.Supports: Cabinet Structure
	<b>PLANT AND ANIMAL HUSBANDRY</b>	190	.Trunks and Hand-Carried Luggage
449	.Bee Culture	206	.Special Receptacle or Package
452	.Butchering		
43	.Fishing, Trapping, and Vermin Destroying		
47	.Plant Husbandry		
119	.Animal Husbandry		

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215	.Bottles and Jars	299	.Mining or In Situ Disintegration of Hard Material
229	.Envelopes, Wrappers, and Paper- board Boxes	166	.Wells
150	.Purses, Wallets, and Protective Covers	175	.Boring or Penetrating the Earth
383	.Flexible Bags	111	.Planting
217	.Wooden Receptacles	171	.Unearthing Plants or Buried Objects
<b>248</b>	<b>SUPPORTS</b>	37	.Excavating
5	.Beds	56	.Harvesters
297	.Chairs and Seats	172	.Earth Working
211	.Supports: Racks	<b>194</b>	<b>CHECK-ACTUATED CONTROL MECHANISMS</b>
108	.Horizontally Supported Planar Surfaces		<b>DISPENSING</b>
	<b>CLOSURES, PARTITIONS, PANEL</b> (Building and receptacle classes for other closures, partitions, and panels)	453	.Coin Handling
267*	.Spring Devices (Support Type) /80-112	141	.Fluent Material Handling, with Receiver or Receiver Coating Means
49	.Movable or Removable Closures	169	.Fire Extinguishers
160	.Flexible or Portable Closure, Parti- tion, or Panel	291	.Track Sanders
256	.Fences	239	.Fluid Sprinkling, Spraying, and Diffusing
	<b>TEXTILES</b>	222	.Dispensing
8*	.Bleaching and Dyeing; Fluid Treat- ment and Chemical Modification of Textiles and Fibers /147-159 (See also Group I for processes and compositions.)	221	. .Article Dispensing
245	.Wire Fabrics and Structure	232	.Deposit and Collection Receptacles
289	.Knots and Knot Tying	<b>414</b>	<b>MATERIAL OR ARTICLE HANDLING</b>
28	.Textiles: Manufacturing	258	.Railway Mail Delivery
26	. .Textiles: Cloth Finishing	186	.Merchandising
66	. .Textiles: Braiding, Netting, and Lace Making	406	.Conveyors: Fluid Current
87	. .Textiles: Braiding, Netting, and Lace Making	212	.Traversing Hoists
139	. .Textiles: Weaving	198	.Conveyors: Power-Driven
57	. .Textiles: Spinning, Twisting, and Twining	187*	.Elevators, Industrial Lift Truck, or Stationary Lift for Vehicle /200-246, 249-298, 300-315, 318- 379, 400-414 (See also Group II, Electric control.)
19	. .Textiles: Fiber Preparation	193	.Conveyors, Chutes, Skids, Guides, and Ways
	<b>EARTH WORKING AND AGRICULTURAL MACHINERY</b>	224	.Package and Article Carriers
405	.Hydraulic and Earth Engineering	294	.Handling: Hand and Hoist-Line Implements
		901	.Robots (Note: Does not accept applications.)
		<b>137</b>	<b>FLUID HANDLING</b>
		454	.Ventilation
		4	.Baths, Closets, Sinks, and Spittoons
		138	.Pipes and Tubular Conduits

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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>
251	.Valves and Valve Actuation	415	.Rotary Kinetic Fluid Motors or Pumps
	<b>VEHICLES</b>	416	.Fluid Reaction Surfaces (i.e., Impellers)
244*	.Aeronautics and Astronautics /1-13, 15-153A (See also Group II, Class 244/14, for aerial torpedoes.)	185	.Motors: Spring, Weight, or Animal Powered
114*	.Ships /255-19 and 26-382 (See also Group II, Class 114/20.1-25, for ship launched torpedoes.)	418	.Rotary Expansible Chamber Devices
441	. .Buoys, Rafts, and Aquatic Devices	92	.Expansible Chamber Devices
440	. .Marine Propulsion		<b>COATING, PRINTING, AND PRINTED MATERIAL; STATIONERY, BOOKS</b>
191	.Electricity: Transmission to Vehi- cles	118*	.Coating Apparatus
104	.Railways	184	.Lubrication
246	. .Railway Switches and Signals	101	.Printing
105	. .Railway Rolling Stock	400	. .Typewriting Machines
238	. .Railways: Surface Track	199	. .Type Casting
280	.Land Vehicles (e.g., chassis and running gear)	276	. .Typesetting
298	. .Land Vehicles: Dumping	401	.Coating Implements with Material Supply
180	. .Motor Vehicles	281	.Books, Strips, and Leaves
903	. .Hybrid Electric Vehicles (HEVs) (Note: Does not accept applica- tions)	462	.Books, Strips, and Leaves for Mani- folding
296	.Land Vehicles: Bodies and Tops	283	.Printed Matter
301	.Land Vehicles: Wheels and Axles		<b>MANUFACTURING, ASSEMBLING, INCLUDING SOME CORRELATIVE MISCELLANEOUS PRODUCTS</b>
295	. .Railway Wheels and Axles		.Metal Founding
152	.Resilient Tires and Wheels	164	.Metallurgical Apparatus
305	.Wheel Substitutes for Land Vehicles	266*	.Metal Working (General Manufac- turing)
213	.Railway Draft Appliances	29*	/2-25.42, 81.01-91.8, 560, 560.1, 284
278	. .Land Vehicles: Animal Draft Appliances		.Bookbinding: Process and Appara- tus
293	.Vehicle Fenders	412	.Package Making
267*	.Spring Devices /2-68, 140.11-141.7	53	.Chain, Staple, and Horseshoe Mak- ing
410	.Freight Accommodation on Freight Carrier	59	.Metal Tools and Implements, Mak- ing
	<b>MOTORS, ENGINES, PUMPS</b> (See also Group II, Electricity, for electric motors.)	76	.Button Making
60*	.Power Plants /200.1-204, 221-721 (See also Group II for chemical reaction motors, subclasses 205-220.)	79	.Manufacturing Container or Tube from Paper; or Other Manufac- turing from a Sheet or Web
123	.Internal-Combustion Engines	493	.Tobacco
417	.Pumps	131	.Coopering
91	.Motors: Expansible Chamber Type	147	.Wheelwright Machines
		157	.Needle and Pin Making
		163	

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<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
227	.Elongated-Member-Driving Apparatus	413	.Sheet Metal Container Making
270	.Sheet-Material Associating	140	.Wireworking
300	.Brush, Broom, and Mop Making	228	.Metal Fusion Bonding
445	.Electric Lamp or Space Discharge Component or Device Manufacturing	249	.Static Molds
29*	.Metal Working (Methods) /592-559	494	<b>MISCELLANEOUS TREATING</b> (See Group I for chemical treatment and physical separation.)
29*	.Metal Working (Assembling Apparatus) /700-824	209	.Imperforate Bowl: Centrifugal Separators
29*	.Metal Working (Plural Diverse Manufacturing Apparatus) /650	366	.Classifying, Separating, and Assorting Solids
	<b>CUTTING, COMMUNUTING, AND MACHINING</b>	134*	.Agitating
483	.Tool Changing	34	.Cleaning and Liquid Contact with Solids /43-201 (See also Group I for cleaning processes.)
234	.Selective Cutting (e.g., Punching)	68	.Drying and Gas or Vapor Contact with Solids
460	.Crop Threshing or Separating	38	.Textiles: Fluid Treating Apparatus
241	.Solid Material Comminution or Disintegration	15	.Textiles: Ironing or Smoothing
470	.Threaded, Headed Fastener, or Washer Making: Process and Apparatus		.Brushing, Scrubbing, and General Cleaning
29*	.Metal Working (Filing) /76.1-77		<b>HANDLING OR STORING SHEETS, WEBS, STRANDS, AND CABLE</b>
29*	.Metal Working (Plural Diverse Manufacturing Apparatus Including Means For Metal Shaping or Assembling) /33R-33T	402	.Binder Device Releasably Engaging Aperture or Notch of Sheet
407	.Cutters, for Shaping	226	.Advancing Material of Indeterminate Length
30	.Cutlery	242	.Winding, Tensioning, or Guiding
451	.Abrading	254*	.Implements or Apparatus for Applying Pushing or Pulling Force (Cable Hauling or Strand Placing) /199-417
408	.Cutting by Use of Rotating Axially Moving Tool	271	.Sheet Feeding or Delivering
82	.Turning	<b>74</b>	<b>MACHINE ELEMENT OR MECHANISM</b>
83	.Cutting	475	.Planetary Gear Transmission Systems or Components
409	.Gear Cutting, Milling, or Planing	474	.Endless Belt Power Transmission Systems or Components
125	.Stone Working	476	.Friction Gear Transmission Systems or Components
144	.Woodworking	477	.Interrelated Power Delivery Controls, Including Engine Control
142	.Wood Turning	492	.Roll or Roller
225	.Severing by Tearing or Breaking		
72	.Metal Deforming		
425	.Plastic Article or Earthenware Shaping or Treating: Apparatus		
100	.Presses		

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<u>Class</u>	<u>Subject</u>	<u>Class</u>	<u>Subject</u>
464	.Rotary Shafts, Gudgeons, Housings, and Flexible Couplings for Rotary Shafts	411	.Expanded, Threaded, Driven, Headed, Tool-Deformed, or Locked-Threaded Fastener
384	.Bearings		
173	.Tool Driving or Impacting		
188	.Brakes		
192	.Clutches and Power-Stop Control		
254*	.Implements or Apparatus for Apply- ing Pushing or Pulling Force (Force Multipliers) /1-134.7, 418-427		
269	.Work Holders		
303	.Fluid-Pressure Pressure Brake and Analogous Systems		
<b>16*</b>	<b>MISCELLANEOUS HARDWARE (E.G., BUSHING, CARPET FASTENER, CASTER, DOOR CLOSER, PANEL HANGER, ATTACHABLE OR ADJUNCT HANDLE, HINGE, WINDOW SASH BALANCE, ETC.)</b> /2.1-220, 400-404		
70	.Locks		
267*	.Spring Devices /1.5, 69-140, 142-182		
	<b>TOOLS</b>		
7	.Compound Tools		
29*	.Metal Working (Assembling Devices) /213.1-283		
81	.Tools		
<b>403</b>	<b>JOINTS AND CONNECTIONS</b>		
439	.Electrical Connectors		
285	.Pipe Joints or Couplings		
16*	. Miscellaneous Hardware (e.g., Bushing, Carpet Fastener, Caster, Door Closer, Panel Hanger, Attachable or Adjunct Handle, Hinge, Window Sash Balance, etc.) /221-392		
279	.Chucks or Sockets		
277	.Seal for a Joint or Juncture		
	<b>FASTENINGS</b>		
292	.Closure Fasteners		
24	.Buckles, Buttons, Clasps, etc.		

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

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