

CLASS 396, PHOTOGRAPHY**SECTION I - CLASS DEFINITION****GENERAL STATEMENT OF THE CLASS SUBJECT MATTER**

A. This class provides for photographic apparatus not classified elsewhere, generally for recording a picture made by a source of light on a photographic medium.

B. This class also includes fluid-treating apparatus for development of film.

C. This class will not receive for original placement a patent claiming alternative embodiments, one of a type proper for this class and one of a type related to another recording class. Patents claiming alternative embodiments will be placed in the class that provides for the alternative and crossed in the appropriate subclass in this class. This class will receive a patent disclosing two types of recording devices when the claims are general or related to this class.

D. Subcombinations of picture recording apparatus not otherwise provided for, such as a removable film-holder unit, hood, camera housing, and camera setting indicator or legend, are classified here.

E. Also classified here are certain accessories related to photography not otherwise provided for such as studio structure (e.g., background, photographic model, or support, etc.), camera mounting or rest, camera attachment (e.g., a vignetter), retouching, or burnishing device.

F. Nonchemical processes involving photographic apparatus of sections A-E, Class Definition, General Statement of the Class Subject Matter, above (e.g., operating such apparatus) are included in this class. See References to Other Classes, below, for processes of radiation imagery chemistry.

SECTION II - LINES WITH OTHER CLASSES AND WITHIN THIS CLASS

Excluded from Class 396 is subject matter relating to image recording of an original or carrier which is developed by toner and video cameras utilizing a semiconductive or CCD device. Such subject matter may be found elsewhere. See below for the line between Class 396 and Class 348.

LINE BETWEEN CLASS 396 and CLASS 348

Class 396 will receive for original placement a patent disclosing both Class 396 and Class 348 devices when the claims are general or directed only towards Class 396 subject matter and are otherwise proper therefor.

Class 396 will not receive for original placement a patent claiming alternative embodiments, one of a type proper for Class 396 and one of a type proper for Class 348. Such a patent should be classified as an original in Class 348 and crossed into the appropriate subclass in Class 396.

Similar placement applies to a claim reciting a combination of Class 348 and Class 396 subject matter. The original is classified in Class 348 with a cross to Class 396 except where Class 348 subject matter merely provides a perfecting feature of a Class 396 type camera or camera system. In that case, the original is classified in Class 396.

- (1) Note. Class 396, subclasses 429+ will accept a combination of a Class 396 type camera and a diverse art device where such combination is not otherwise provided for. For classification purposes above, the recitation of an "image sensor," "image pickup device," or the like that generates an image representative electrical signal which may be subsequently processed or displayed, or the positive recitation of a "video camera" in a claim is considered to be Class 348 subject matter if otherwise proper therefor. **OBJECT ILLUMINATION SUBCOMBINATIONS CLASSIFIED ELSEWHERE**
Artificial light sources, per se, may be distinguished as being either noncombustible or combustible. Noncombustible incandescent lamps, where the filament is not intended to be burned or consumed and for gas discharge lamps of the "electronic flash" type are classified elsewhere. See References to Other Classes, below.
The combination of a Class 313 light source and the electrical circuitry for energizing the same are classified elsewhere. See References to Other Classes, below.
Circuits of general utility for igniting combustible or explosive devices, such as rockets or dynamite are classified elsewhere. See References to Other Classes, below.
The combination of an artificial light source with a protector, support or distribu-

tor, and photographic lights are classified elsewhere. See References to Other Classes, below.

Combustible illuminating flash devices such as photographic bulbs, and electrical circuitry for electrically igniting a combustible light source are classified elsewhere. See References to Other Classes, below.

- (1) Note. This class (396) provides for the combination of an illumination device and essential camera structure other than a mere recitation of a "camera housing wall".

FLUID-TREATING APPARATUS CLASSIFIED ELSEWHERE

Class 34, Drying and Gas or Vapor Contact With Solids, is the generic class for the contacting of solids with either, or both, gases or vapors. Class 34 provides for the apparatus which merely claims a gas generator, such as ammonia, with means for containing the gas for treating "photographic" material and may include means for handling or feeding the material in or into the gas treatment area. The inclusion of heating means for vaporizing liquid or solid ammoniated compounds to release ammonia gas or vapor does not preclude classification in Class 34.

Class 134, Cleaning and Liquid Contact With Solids, is the generic class for apparatus for contacting solids with liquids for any purpose not provided for in other classes. The Class 134 definitions should be referred to for the classification of patents directed to subcombinations of fluid treating apparatus.

The combinations of photocopying apparatus and developing apparatus are classified elsewhere. See References to Other Classes, below.

Mixing chambers of the print washer-type including specified feed means without a separate work holder where turbulence or agitation will inherently occur during normal usage are classified elsewhere. See References to Other Classes, below.

- (1) Note. This class (396) provides for gas treatment of claimed specific material such as "diaz" sheet material. See Subclass References to the Current Class, below.

This class (396) provides for the combination of a camera and developing apparatus not limited to photocopying. See Subclass References to the Current Class, below.

This class (396) provides for a claimed recitation of a vessel containing a developing solution and a vessel containing a fixing or washing solution with means for moving a photographic film, print, or plate there-through sequentially.

This class (396) provides for the combinations which include claimed recitations concerning specified solutions, such as "hypo," or specified material by its photographic characteristic or orientation, such as emulsion side up.

This class (396) provides for provide for the combination of fluid treating apparatus and a dark cabinet wherein the light-excluding features are claimed. See Subclass References to the Current Class, below.

This class (396) provides for fluid treating apparatus for treating superimposed or laminar sheets. See Subclass References to the Current Class, below.

See References to Other Classes, below for liquid development.

CAMERA CASE SUBCOMBINATIONS CLASSIFIED ELSEWHERE

Receptacles particularly constructed to contain a camera such as having a special shape and interior arrangement provided with shelves, racks, or arrangements of clasps or retaining devices for holding a camera are classified elsewhere. See References to Other Classes, below.

Devices for carrying a camera wherein means are provided that are especially adapted to be supported upon a person's body are classified elsewhere. See References to Other Classes, below.

Cabinet structure designed to house picture machines or films or other highly inflammable material and cabinets for housing and supporting instruments so that relative guided motion between the instrument and the cabinet structure results in placement of

the instrument in a position exposed for use or in a position as for storage, out of the way in cabinet structure are classified elsewhere. See References to Other Classes, below.

- (1) Note. This class (396) provides for a camera which includes a detailed light-excluding case, casing, or housing. See Subclass References to the Current Class, below.

FOREIGN ART COLLECTIONS IN CLASS 396

In establishing new Class 396, only a portion of the foreign patents/nonpatent literature from old Class 354 was reclassified along with the U.S. patents into subclasses 1-661 of the new Class 396 schedule.

Those Class 354 subclasses with foreign patents/nonpatent literature which were not reclassified into subclasses 1-661 of Class 396 had these documents transferred directly to equivalent foreign art collections maintaining their original titles and positioning.

Those Class 354 subclasses with foreign patents/nonpatent literature which were reclassified into subclasses 1-661 of Class 396 have no equivalent foreign art collections. The Class 396 subclasses having associated foreign patent/nonpatent literature are as follows: 1-5, 14-47, 207-209, 246-256, 268-276, 281-296, 301-309, 322-350, 429-434, 438, 505-563, and 661.

The foreign art collections in Class 396 (subclasses FOR 700 - FOR 971) are intended only for receiving foreign patents/nonpatent literature.

In subclasses 1-661, references to foreign art collections under "SEARCH THIS CLASS, SUBCLASS" are intended only as a guide and consideration should be given to the remaining set of foreign art collections in completing a search.

Definitions of the foreign art collections were excerpted from the corresponding Class 354 subclass definitions.

SECTION III - SUBCLASS REFERENCES TO THE CURRENT CLASS

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 30+, for the combination of a camera and developing apparatus not limited to photocopying.

- 535+, provide for a camera which includes a detailed light-excluding case, casing, or housing.
- 579, for gas treatment of claimed specific material such as "diaz" sheet material.
- 580+, for fluid treating apparatus for treating superimposed or laminar sheets.
- 589+, for the combination of fluid treating apparatus and a dark cabinet wherein the light-excluding features are claimed.

SECTION IV - REFERENCES TO OTHER CLASSES

SEE OR SEARCH CLASS:

- 15, Brushing, Scrubbing, and General Cleaning, subclass 100 for wiping-type, photographic-film cleaners.
- 33, Geometrical Instruments, subclass 266 for a straight line light ray geometrical instrument which is camera mounted, subclass 314 for impressing an indication of a borehole direction or inclination on a photosensitive record, subclass 334 for an indicator of the direction of force traversing a natural medium which is structurally installed on a camera and related to a feature thereof, and subclass 615 for a contact member which facilitates the positioning of a photographic element or element holder at a desired spacing with respect to a support.
- 34, Drying and Gas or Vapor Contact With Solids, is the generic class for the contacting of solids with either, or both, gases or vapors. Class 34 provides for the apparatus which merely claims a gas generator, such as ammonia, with means for containing the gas for treating "photographic" material and may include means for handling or feeding the material in or into the gas treatment area. The inclusion of heating means for vaporizing liquid or solid ammoniated compounds to release ammonia gas or vapor does not preclude classification in Class 34.
- 40, Card, Picture, or Sign Exhibiting, subclasses 361+ for a photographic transparency viewer.
- 73, Measuring and Testing, subclasses 1.42+ for camera shutter proving or calibrating.
- 74, Machine Element or Mechanism, appropriate subclasses for an element of a camera; e.g., gear, cam, etc.
- 75, Specialized Metallurgical Processes, Compositions for Use Therein, Consolidated Metal

- Powder Compositions, and Loose Metal Particulate Mixtures, subclass 417 for processes producing free metal from photographic waste at 300 degrees Centigrade or greater combined with a step at less than 300 degrees Centigrade and using a liquid nonmetallic material, subclass 635 for processes recovering silver from photographic material at 300 degrees Centigrade or greater, and subclass 713 for processes producing free metal from photographic material below 300 degrees Centigrade using a liquid nonmetallic material.
- 83, Cutting, subclass 948 for a Cross-reference Art Collection relating to photographic film cutting.
- 116, Signals and Indicators, subclass 213 for an indicator with a camera merely providing support.
- 134, Cleaning and Liquid Contact With Solids, subclass 64 for apparatus exhibiting liquid contact with a longitudinally travelling strip (e.g., photographic) where there are sequential work-treating stations or a station with means to transfer work or fluid-applying devices, and subclass 122 for apparatus exhibiting liquid contact with a longitudinally travelling strip (e.g., photographic). Class 134, is the generic class for apparatus for contacting solids with liquids for any purpose not provided for in other classes. The Class 134 definitions should be referred to for the classification of patents directed to subcombinations of fluid treating apparatus.
- 156, Adhesive Bonding and Miscellaneous Chemical Manufacture, subclass 58 for miscellaneous chemical manufacturing methods of contour or profile photography to reproduce a three-dimensional object.
- 178, Telegraphy, subclass 15 and 90, for telegraphy including a photographic operation.
- 206, Special Receptacle or Package, subclass 316.2 for a special camera receptacle or package receptacles particularly constructed to contain a camera such as having a special shape and interior arrangement provided with shelves, racks, or arrangements of clasps or retaining devices for holding a camera. .
- 224, Package and Article Carriers, provides for devices for carrying a camera wherein means are provided that are especially adapted to be supported upon a person's body; subclass 908 for a Cross-reference Art Collection relating to a photographic (e.g., camera) carrier.
- 235, Registers, subclass 64.7 for a mechanical photographic calculator, and subclass 91 for a device (e.g., photograph) operated register.
- 242, Winding, Tensioning, or Guiding, subclasses 324+ for an unwinding and rewinding coil-to-coil machine convertible information carrier (e.g., magnetic tape or photographic film, etc.) cartridge system, or subclasses 615+ for a residual guide or guard that directs elongated flexible material that may be combined with more than one nominal winding structure.
- 248, Supports, appropriate subclasses, for a device which carries the weight of an article or otherwise holds or steadies it against the pull of gravity, and a device for holding an article to its support.
- 250, Radiant Energy, subclass 214 for a special photocell or electron tube circuit (including photographic control), subclasses 363.02+ for a luminophor body scanner or camera with radiant energy source, subclasses 475.2+ for photographic-type detection of invisible radiation, and subclasses 580+ for the making of a photograph by invisible radiation generally. A camera or part thereof which may be used to take a photograph by visible light as well as by ultraviolet or infrared rays is in Class 396. Picture making by a Class 250 device combined with a Class 396 device is provided for in Class 250.
- 252, Compositions, subclasses 582+ for optical filter composition and optical filter defined only in terms of its composition.
- 283, Printed Matter, subclass 77 for a photographic personal identifier with revealable concealed information, and subclass 112 for a photograph and revealable concealed information which is plastic laminated.
- 292, Closure Fasteners, Digest 48, for a camera cover fastener.
- 294, Handling: Hand and Hoist-Line Implements, subclass 139 for an optical instrument support per se to be gripped and carried by hand.
- 312, Supports: Cabinet Structure, subclass 10.1, provides for cabinet structure designed to house picture machines or films or other highly inflammable material and subclasses 21+ provide cabinets for housing and supporting instruments so that relative guided motion between the instrument and the cabinet structure results in placement of the instrument in a position exposed for use or in a position as for storage, out of the way in cabinet structure. Some of the patents include the instrument housed by name only but in general if any

- instrument structure is recited, the combination is classified with the instrument.
- 313, Electric Lamp and Discharge Devices, for non-combustible incandescent lamps, where the filament is not intended to be burned or consumed and for gas discharge lamps of the "electronic flash" type.
- 315, Electric Lamp and Discharge Devices: Systems, provides for the combination of a Class 313 light source and the electrical circuitry for energizing the same.
- 340, Communications: Electrical, subclass 937 for a vehicle detector with camera.
- 342, Communications, Directive Radio Wave Systems and Devices (e.g., RADAR, Radio Navigation), subclass 66 for a directive radio wave system where the return signal controls a camera.
- 346, Recorders, particularly subclasses 107.1+ for the subject matter of that class combined with a photographic step or apparatus.
- 348, Television, appropriate subclasses and particularly subclasses 272+ and 294+ for an electronic camera with a semiconductor matrix in place of film or a CCD device.
- 351, Optics: Eye Examining, Vision Testing and Correcting, subclasses 206+ for an eye examining instrument with eye photography.
- 352, Optics: Motion Pictures, appropriate subclasses for motion picture method or apparatus, especially subclass 51 for methods of recording a series of drawings using photographic images as guides, subclass 137 for a motion picture camera structurally convertible to a still camera, and subclass 169 for a motion picture camera which can selectively record a single frame.
- 353, Optics: Image Projectors, subclasses 5+ for a projection system for mapping or aerial photograph rectifying.
- 355, Photocopying, for photographically copying information from an original or carrier that is not classified elsewhere, while generally employing a concentrated source of light and an image receiving medium with a photosensitive emulsion surface; subclasses 27+, 100, and 106+ for combinations of photocopying apparatus and developing apparatus.
- 356, Optics: Measuring and Testing, appropriate subclasses for measuring or testing combined with photographic recording provided for there, subclass 3 for rangefinder, subclasses 213+ for photometers, subclass 302 for dispersed light spectroscopy using a photographic medium, subclass 404 for photographic light wave frequency analysis, and subclasses 443+ for light transmission or absorption analysis of photographic film.
- 358, Facsimile and Static Presentation Processing, subclass 302 for facsimile photographic recording, subclass 527 for a color facsimile photographic previewer, and subclass 909.1 for a Cross-reference Art Collection related to an electronic still camera with a semiconductor matrix in place of film.
- 359, Optics: Systems (Including Communication) and Elements, appropriate subclasses for optical subcombinations of a camera, and subclass 564 for optical Fourier transform spatial filtering with photographic media.
- 361, Electricity: Electrical Systems and Devices, subclasses 248+ for circuits of general utility for igniting combustible or explosive devices, such as rockets or dynamite.
- 362, Illumination, for the combination of an artificial light source with a protector, support or distributor; subclasses 3+ specifically for photographic lights.
- 366, Agitating, subclass 166 provides for mixing chambers of the print washer-type including specified feed means without a separate work holder where turbulence or agitation will inherently occur during normal usage.
- 369, Dynamic Information Storage or Retrieval, subclass 125 for dynamic information storage or retrieval having a photographic storage medium.
- 378, X-Ray or Gamma Ray Systems or Devices, appropriate subclasses, particularly subclasses 167+ for methods and apparatus for making pictures of animate and inanimate objects by the action of X-rays and gamma rays.
- 386, Processing of Color Television Signal for Dynamic Recording or Reproducing, subclasses 42+ for color television signal recording or reproducing using a dynamic photographic record, and subclasses 128+ for generic television signal recording or reproducing using a dynamic photographic record.
- 399, Electrophotography, subclasses 9+ for diagnostics, subclasses 38+ for controls, subclasses 130+ for image formation, subclasses 168+ for charging, subclasses 177+ for exposure, subclasses 222+ for development, subclasses 237+ for liquid development; subclasses 297+ for transfer, subclasses 320+ for fixing, subclasses 343+ for cleaning, and subclasses 361+ for document handling.

- 427, Coating Processes, appropriate subclasses for the method of making a filter by coating.
- 428, Stock Material or Miscellaneous Articles, subclasses 98+ for a structurally defined developed film or photographic print, subclasses 195+ for a structurally defined sheet with discontinuous or differential coating such as a retouched photograph, subclasses 221+ for a developed film or photographic print in which an element or component is structurally defined, and subclasses 411.1 for a developed film or photographic print defined merely by the composition of its layers.
- 430, Radiation Imagery Chemistry: Process, Composition, or Product Thereof, appropriate subclasses for radiation imagery chemistry involving process, composition, and product.
- 431, Combustion, subclasses 357+ for combustible illuminating flash devices such as photographic bulbs, and subclass 362 provides for electrical circuitry for electrically igniting a combustible light source.
- 446, Amusement Devices: Toys, subclass 408 for a simulated camera toy providing a sound.
- 493, Manufacturing Container or Tube From Paper; or Other Manufacturing From a Sheet or Web, subclasses 53+ for rigid container making with photographic reproduction, subclasses 187+ for pliable container making with photographic reproduction, and subclass 270 for tube making with photographic reproduction, and subclasses 320+ for manufacturing from a sheet or web with photographic reproduction.
- 536, Organic Compounds, subclass 40 for recovering nitrated cellulose from photographic film, and subclass 78 for recovering cellulose acetate from photographic film.
- 600, Surgery, subclass 525 for electric heartbeat signal recording using a CRT and camera.
- 702, Data Processing: Measuring, Calibrating, or Testing, subclasses 182+ for performance or efficiency evaluation.
- D16, Photography and Optical Equipment, subclasses 200+ for design patents relating to cameras or bodies therefor, and subclasses 237+ for design patents relating to photographic accessories.
- D21, Games, Toys, and Sports Goods, subclass 514 for design patents relating to toy cameras and photographic type toys.

APERTURE

An aperture is an opening in the camera through which light passes in order to expose a photographic medium.

APERTURE VALUE (AV)

Aperture value is a logarithmic number indicative of aperture size.

CAMERA

A camera is a device which, when actuated, uses light to record an image of an object which may be chemically developable to become visible. It generally includes (a) a light-tight enclosure, (b) a lens for forming an image of an object at an image plane, (c) a holder for a photographic medium at the image plane, (d) a device to control the light flux reaching the photographic medium, and (e) an opaque device selectively operable to pass light to a photographic medium for a period of time. See References to Other Classes, above (e.g., Classes 250 and 378), for information regarding picture-making devices of diverse energy spectra.

CAMERA STRUCTURE

Camera structure is that subcombination of a camera not otherwise provided for in another class.

DEVELOPING APPARATUS

Developing apparatus is that which makes a photographic image visible.

DIAPHRAGM

A diaphragm is a device to change the light flux passing through the aperture.

EXPOSURE

Exposure is the act of allowing light to reach the photographic medium.

EXPOSURE CONTROL CIRCUIT

An exposure control circuit is an electronic circuit to control the exposure.

EXPOSURE OBJECTIVE

SECTION V - GLOSSARY

An exposure objective is an objective that focuses light from the object onto a photographic medium.

EXPOSURE SYSTEM

An exposure system is one that has means to regulate or adjust an amount of light reaching the photographic medium.

EXPOSURE TIME

Exposure time is the length of time an exposure occurs.

EXPOSURE TIME VALUE (TV)

Exposure time value is a logarithmic number indicative of exposure time.

EXPOSURE VALUE (EV)

Exposure value is the sum of the aperture value and exposure time value.

FLASH DEVICE

A flash device is a means to produce one or more bursts of light to provide scene illumination for exposure.

FOCUSING

Focusing is the act of obtaining a sharp image of a subject by adjusting a lens system.

FRAME

A frame is the space or area on a photographic medium normally occupied by one picture.

IN-FOCUS

An in-focus condition occurs when an object image attains its sharpness.

LIGHT FLUX

Light flux is the rate of light flow across a surface.

OBJECT (OR SUBJECT)

An object or a subject refers to a person or thing within the scene to be recorded on a photographic medium.

OBJECTIVE

An objective is a lens that normally faces the object. See Class 359 for a more specific definition.

PHOTOGRAPHIC MEDIUM

A photographic medium is a material coated with a chemical that is photosensitive to actinic light.

RANGEFINDING

Rangefinding is the act of measuring the distance from a subject to the camera.

SCENE

A scene is the view to be recorded on a photographic medium.

SHUTTER

A shutter is a device for blocking or unblocking the passage of light for controlling the exposure time.

SUBCLASSES

1 STUDIO STRUCTURE:
This subclass is indented under the class definition. Subject matter having means to assist in taking a photograph which is not part of a camera or attached to a camera.

SEE OR SEARCH CLASS:

348, Television, subclass 722 for television studio equipment.

359, Optics: Systems (Including Communication) and Elements, subclasses 591+ for means for illuminating building interiors with outside light.

362, Illumination, appropriate subclasses for artificial illumination generally.

2 Photo booth:
This subclass is indented under subclass 1. Subject matter comprising a self-contained, relatively small studio enclosure which permits automatic photography of an individual or small group.

3 Background or foreground:
This subclass is indented under subclass 1. Subject matter having means auxiliary to a primary object which are included in a photograph to produce a scenic effect.

SEE OR SEARCH CLASS:

- 160, Flexible or Portable Closure, Partition, or Panel, appropriate subclasses for backgrounds in the form of plural strips, slats, or panels interconnected for relative motion, where only the structure thereof, with or without operating, mounting, or housing means, are claimed and no features specialized to photography (such as surface characteristics of the background or particular relation to the object to be photographed) are claimed.
- 352, Optics: Motion Pictures, subclasses 88+ for sets used in motion pictures.

4 Lighting:

This subclass is indented under subclass 1. Subject matter including detailed studio illuminating means.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 155+, for camera structure combined with object illuminating means.

SEE OR SEARCH CLASS:

- 362, Illumination, subclasses 3+ for photographic lighting, per se.

5 Object support:

This subclass is indented under subclass 1. Subject matter including structure for maintaining an object at a desired position during studio photography.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 310+, for camera data recording.
419+, for camera support, in general.
556+, for phototype composing which may include diverse-type stencil carrier.

6 DISPOSABLE OR RECYCLABLE CAMERA:

This subclass is indented under the class definition. Subject matter in which a camera body structure is loaded with film at a factory and the entire structure is returned to the factory for removal and processing of the film.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 535+, for a camera body detail.

SEE OR SEARCH CLASS:

- 399, Electrophotography, subclass 109 for remanufacturing of electrophotographic parts.

7 AERIAL CAMERA:

This subclass is indented under the class definition. Subject matter wherein a camera is specifically adapted for aerial photography or is combined with or specially adapted for attachment to a support which is at a practically inaccessible altitude or is combined with means specially adapted for controlling exposures at inaccessible altitudes.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- FOR 756+, for foreign art collections involving aerial cameras.

SEE OR SEARCH CLASS:

- 348, Television, subclasses 144+ for television cameras adapted for aerial viewing.
359, Optics: Systems (Including Communication) and Elements, subclass 820 for lens mounts with means to compensate for temperature change.

8 Having shutter or film feed speed and air or spin speed synchronizing:

This subclass is indented under subclass 7. Subject matter wherein the camera is intended to be mounted on an air vehicle and has means for varying the speed of the shutter or photographic medium feeding mechanism in response to a change in the speed of the air vehicle.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 387+, for camera structure with film drive in general.

FOR 757, for a foreign art collection involving an aerial camera having shutter or film speed and air or spin speed synchronizing.

- 9 Simultaneous recording of plural images:**
This subclass is indented under subclass 7. Subject matter wherein two or more images are recorded at the same time.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
322+, for plural image recording in general.
FOR 759+, for foreign art collections involving an aerial camera having simultaneous recording of plural images.
- 10 Plural images recorded on plural film:**
This subclass is indented under subclass 9. Subject matter wherein the plural images are recorded on separate photographic media.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
322+, for plural image recording in general.
FOR 760, for a foreign art collection involving an aerial camera having plural images recorded on plural film.
- 11 Including continuously moving film:**
This subclass is indented under subclass 7. Subject matter wherein a film is shifted without interruption during the recording of a single exposure.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
20+, for a scanning camera.
387+, for camera structure with film drive in general.
FOR 762, for a foreign art collection involving an aerial camera including continuously moving film.
- SEE OR SEARCH CLASS:
352, Optics: Motion Pictures, appropriate subclasses for recording of motion pictures.
- 12 Support or holder:**
This subclass is indented under subclass 7. Subject matter including means for supporting the camera against gravity.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
419+, for camera support, in general.
- FOR 765, for a foreign art collection involving an aerial camera having support or holder.
- 13 Having stabilizing (e.g., gyroscope, etc.):**
This subclass is indented under subclass 12. Subject matter wherein the camera support has a stabilizing system to compensate for the movement of the structure to which the support is mounted.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
55, for systems which actually sense camera shake and provide subsequent stabilization.
FOR 761, for a foreign art collection involving an aerial camera having direction stabilizing.
- SEE OR SEARCH CLASS:
74, Machine Element or Mechanism, subclasses 5+ for gyroscopes.
- 14 BODY EXAMINATION PHOTOGRAPHY:**
This subclass is indented under the class definition. Subject matter wherein a camera is adapted to photograph a living being or portion thereof for subsequent identification or inspection.
- 15 Skin ridge pattern (e.g., fingerprint):**
This subclass is indented under subclass 14. Subject matter wherein a camera is adapted to photograph distinctive elongated raised areas of a skin surface.
- (1) Note. This typically comprises fingerprint photography but may also include comparable photography of a palm or sole of foot.
- 16 Mouth, jaw, or tooth:**
This subclass is indented under subclass 14. Subject matter wherein a camera is adapted for dental-type photography.
- 17 Endoscope:**
This subclass is indented under subclass 14. Subject matter wherein a camera is attached to a device which may be inserted within the body through a relatively small opening.

- SEE OR SEARCH CLASS:
 348, Television, subclasses 65+ for a video endoscope.
 385, Optical Waveguides, subclasses 117+ for an optical fiber bundle endoscope, per se.
 600, Surgery, subclasses 101+ for a surgical endoscope with illuminating means which may or may not include an imaging device such as a camera.
- 18 Eye photography:**
 This subclass is indented under subclass 14. Subject matter wherein a camera is adapted to photograph the exterior or interior of an eye.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
 51, for eye gaze tracking.
- SEE OR SEARCH CLASS:
 351, Optics: Eye Examining, Vision Testing and Correcting, subclasses 206+ for an objective-type eye examining or testing instrument that includes still or motion picture photographic apparatus.
- 19 HOLLOW CAVITY TYPE:**
 This subclass is indented under the class definition. Subject matter wherein a camera is specifically adapted for use in photographing the interior of a hollow cavity.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
 17, for a camera with endoscope.
- SEE OR SEARCH CLASS:
 346, Recorders, subclass 107.2 for well-bore photographic recorders.
 348, Television, subclasses 65+, 84, and 85 for television cameras adapted for use in endoscopes, pipelines, or well-bores, respectively.
- 20 SCANNING CAMERA:**
 This subclass is indented under the class definition. Subject matter including camera structure wherein there is relative motion between the lens and a light sensitive surface in order to increase the angular extent of the view covered.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
 11, for an aerial camera making a single exposure on a continuously moving film.
 436, for variable frame masking producing a wide aspect ratio photograph.
- SEE OR SEARCH CLASS:
 248, Supports, appropriate subclasses and particularly subclass 349.1 for a rotatable support base.
 352, Optics: Motion Pictures, subclasses 69+ for a motion picture panoramic camera.
- 21 Including reflector:**
 This subclass is indented under subclass 20. Subject matter which utilizes a mirrorlike element.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
 351, for means to reflect an image to film in general.
- SEE OR SEARCH CLASS:
 359, Optics: Systems (Including Communication) and Elements, subclasses 838+ for a mirror, per se.
- 22 Concave film surface:**
 This subclass is indented under subclass 20. Subject matter wherein a photographic medium surface is bent into the form of a partial cylinder and the exposure is made upon the inner cylindrical surface.
- 23 Convex film surface:**
 This subclass is indented under subclass 20. Subject matter wherein a photographic medium surface is bent into the form of a partial cylinder and exposure is made upon the outer cylindrical surface.
- 24 Synchronization of film and camera movement:**
 This subclass is indented under subclass 20. Subject matter including means to apply a force to photographic medium surfaces to effect motion, and means which operates in time relationship therewith to apply a force to

- the camera to effect its motion during exposure.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
8, for shutter/film speed with air/spin speed synchronizing.
11, for an aerial camera utilizing continuously moving film.
387+, for camera structure and film drive, in general.
- 25 UNDERWATER, WATERPROOF, OR WATER-RESISTANT CAMERA:**
This subclass is indented under the class definition. Subject matter wherein a camera is provided with means for protection from liquid intrusion.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
535+, for a generic camera housing.
- SEE OR SEARCH CLASS:
348, Television, subclass 81 for television cameras adapted for use in underwater environments.
- 26 Fluid pressure detection or modification:**
This subclass is indented under subclass 25. Subject matter which senses or changes gas or liquid pressure in the immediate vicinity of the camera.
- SEE OR SEARCH CLASS:
73, Measuring and Testing, subclasses 700+ for a fluid pressure gauge.
- 27 Camera removable from handheld casing:**
This subclass is indented under subclass 25. Subject matter including a camera portion readily separable from a manually supported enclosure.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
420+, for a camera with operator support, in general.
- 28 Having illumination device:**
This subclass is indented under subclass 25. Subject matter including structure providing light to an underwater object.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
155+, for object exposure illumination, in general.
- 29 Handheld camera:**
This subclass is indented under subclass 25. Subject matter wherein the camera is manually supported.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
420+, for a camera with operator support, in general.
- 30 SELF-DEVELOPING CAMERA:**
This subclass is indented under the class definition. Subject matter having camera structure and developing means which are enclosed in a light excluding case in which a photographic medium may be subjected to one or more fluid-treating operations, such as sensitizing, developing, etc.
- (1) Note. For classification herein, the camera and treating devices must be in a single light excluding case or connected by a light excluding chamber.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
527, for plate or cut film assemblies, per se, which include processing chemicals.
564+, for photographic fluid treating apparatus, per se.
- 31 Including means to treat superimposed material:**
This subclass is indented under subclass 30. Subject matter wherein an image-exposed sheet or strip is brought into contact with a second sheet or strip and means to treat the sheet or strip with a fluid.
- (1) Note. Generally a sheet with an exposed image thereon and a second (receptor) sheet are brought into contact after a fluid has been applied thereto to transfer the image from one sheet to the other.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
580+, for fluid-treating apparatus, per se, for treating superimposed or laminar sheets.
- 32 Including pressure means:**
This subclass is indented under subclass 31. Subject matter having means to apply a pressing force to facilitate the dispensing of processing fluids to the image-exposed sheet.
- (1) Note. This subclass includes the collapsing of a rupturable container of fluid to release the fluid on the sheet.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
582+, for treating superimposed or laminar sheets with fluid dispensing apparatus, per se.
- 33 Roller:**
This subclass is indented under subclass 32. Subject matter wherein the means to apply a pressing force has a peripheral surface in the shape of a cylinder.
- (1) Note. The roller must be for the purpose of dispensing the fluid as distinguished from rollers which may be used to move or press the sheets without a fluid dispensing action.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
31, for a roller dispensing the fluid by a wetting action rather than a pressing action and with superimposed sheets.
42, for a fluid roller applicator not limited to superimposed sheets.
- 34 Light shield:**
This subclass is indented under subclass 33. Subject matter which includes light blocking at a photographic medium exit slot.
- 35 Tab:**
This subclass is indented under subclass 33. Subject matter wherein a small projection from the side of a camera is pulled to provide motive force to remove a photographic medium therefrom.
- 36 Ejecting:**
This subclass is indented under subclass 33. Subject matter which provides means to propel a photographic medium from the camera.
- 37 Having pick:**
This subclass is indented under subclass 36. Subject matter having a claw member which moves a photographic medium into engagement with the ejecting means.
- 38 Exposed photographic medium engaging or holding:**
This subclass is indented under subclass 33. Subject matter having means to handle or retain a photographic medium following exposure.
- 39 Holding chamber:**
This subclass is indented under subclass 38. Subject matter wherein the retaining means comprises a container attached to or an integral part of a camera.
- 40 Mechanical detail of roller or roller drive:**
This subclass is indented under subclass 33. Subject matter which recites particular mechanical structure of the roller or drive mechanism therefor.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
584, for roller details in fluid treating apparatus which operates on superimposed sheets.
- 41 Operating on rolled material:**
This subclass is indented under subclass 33. Subject matter wherein one of the sheets or strips is wound into the form of a cylinder.
- 42 Including fluid applicator:**
This subclass is indented under subclass 30. Subject matter having a supply of treating fluid and including means for dispensing said fluid onto light sensitive material.
- (1) Note. The fluid applicator is a saturated web, wetting roll, sprayer, doctor blade, etc.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
564+, for various fluid applicator apparatus, per se, and especially subclasses 582+, 604+, 625, and 627.
- SEE OR SEARCH CLASS:
399, Electrophotography, subclasses 239+ for liquid application members in an electrophotographic device.
- 43 Including film processing tank:**
This subclass is indented under subclass 30. Subject matter having a receptacle or container for holding the developing fluid.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
636+, for a film or print processing vessel.
- 44 And means to move film:**
This subclass is indented under subclass 43. Subject matter including active means to propel light sensitive material.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
387+, for camera structure with film drive, in general.
- 45 Having tank filling means:**
This subclass is indented under subclass 44. Subject matter including a supply source of fluid and means for dispensing the fluid in the tank.
- 46 Operating on rolled photographic medium:**
This subclass is indented under subclass 44. Subject matter having a supply of light sensitive material wound into the form of a cylinder.
- 47 Plural tanks:**
This subclass is indented under subclass 44. Subject matter having two or more receptacles or containers.
- 48 CONTROL CIRCUIT FOR SEQUENCING AT LEAST THREE FUNCTIONS:**
This subclass is indented under the class definition. Subject matter including a circuit to coordinate three or more major camera operations (e.g., coordination of focus operation, exposure control, and film advancing; coordination of
- self-timer operation, photometering, and focus operation; etc.).
- 49 SELF-ORGANIZING SYSTEM:**
This subclass is indented under the class definition. Subject matter having means to self-organize previously set camera parameters in order to make decisions about subsequent camera settings.
- (1) Note. This includes systems utilizing neural networks, fuzzy logic, and other artificial intelligence circuits.
- SEE OR SEARCH CLASS:
706, Data Processing: Artificial Intelligence, appropriate subclasses for artificial intelligence circuits.
- 50 ATTITUDE SENSING:**
This subclass is indented under the class definition. Subject matter having means to detect orientation of a camera.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
52+, for camera shake sensing.
- 51 EYE TRACKING:**
This subclass is indented under the class definition. Subject matter having means to detect gaze direction or visual axis of a camera operator's eye.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
18, for a camera particularly adapted for eye photography.
- SEE OR SEARCH CLASS:
348, Television, subclass 333.03 for display of a frame and line of sight determination.
- 52 CAMERA SHAKE SENSING:**
This subclass is indented under the class definition. Subject matter having means to detect vibration of a camera.
- SEE OR SEARCH CLASS:
73, Measuring or Testing, subclasses 570+ for vibration measuring.

- 53 With accelerometer:**
This subclass is indented under subclass 52. Subject matter having a device that detects acceleration of the camera.
- SEE OR SEARCH CLASS:
73, Measuring or Testing, subclasses 488+ for acceleration measuring.
- 54 With photoarray:**
This subclass is indented under subclass 52. Subject matter having an array of photoelements to detect the camera vibration.
- SEE OR SEARCH CLASS:
257, Active Solid-State Devices (e.g., Transistors, Solid-State Diodes), subclasses 443+ for a light-sensitive array consisting of solid-state elements.
- 55 Having stabilization system:**
This subclass is indented under subclass 52. Subject matter having a means to compensate for vibration of the camera.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
13, for an aerial camera with stabilizing.
421, for an operator camera support with stabilization not having camera shake detecting.
- 56 HAVING WIRELESS REMOTE CONTROL:**
This subclass is indented under the class definition. Subject matter having means to control a camera from a distance by electromagnetic signals or sound (e.g., voice).
- SEE OR SEARCH THIS CLASS, SUBCLASS:
297+, for nonremote operator controlled data entry into a camera.
- SEE OR SEARCH CLASS:
359, Optical Communications, subclasses 106 through 114 for generic optical communication remote control.
399, Electrophotography, subclass 8 for remote monitoring of an electrophotographic device or component.
- 57 Camera system data/mode entry:**
This subclass is indented under subclass 56. Subject matter wherein the means sets camera parameters.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
297+, for nonremote operator controlled data entry into a camera.
- 58 Camera aiming:**
This subclass is indented under subclass 56. Subject matter wherein the means changes the camera field of view.
- 59 Camera release:**
This subclass is indented under subclass 56. Subject matter wherein the means starts an exposure cycle.
- (1) Note. Excluded herein is a camera release initiated by a mere burst of light from an object exposure illumination means which activates a photocell.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
171, for object exposure illumination means which may activate a photocell for camera release.
263+, for a camera release control circuit in general.
502+, for a mechanical shutter release or actuator means.
- 60 PSEUDO ZOOM:**
This subclass is indented under the class definition. Subject matter having means to designate and record the location of a portion of a standard size photographic frame which, during subsequent printing of such portion, simulates the use of a variable focal length lens at the time of the original exposure.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
72+, for camera structure with a variable focal length camera objective (e.g., zoom, etc.).
311, for generic recording of photographic data used in subsequent processing.
435+, for variable frame masking by an opaque element.

- 61 FLASH SYSTEM RESPONSIVE TO FOCAL LENGTH OR DISTANCE:**
This subclass is indented under the class definition. Subject matter wherein an artificial illumination means or a circuit controlling the artificial illumination means is adjusted in accordance with the focal length of the exposure objective or the distance from the camera to an object.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
155+, for object exposure illumination in general.
FOR 771+, for foreign art collections involving object illumination with camera structure.
- 62 Illumination angle responds to focal length or distance:**
This subclass is indented under subclass 61. Subject matter wherein an output light beam area of the artificial light varies according to the focal length of the exposure objective.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
175, for a variable illumination angle device, in general.
- 63 EXPOSURE CONTROL SYSTEM RESPONSIVE TO FOCAL LENGTH:**
This subclass is indented under the class definition. Subject matter wherein a shutter or diaphragm mechanism is adjusted in accordance with the focal length of an exposure objective.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
213+, for camera exposure control circuit in general.
FOR 710+, for foreign art collections involving a camera automatic exposure control system or device.
- 64 Control of full open aperture value:**
This subclass is indented under subclass 63. Subject matter wherein the effective maximum aperture size is responsive to focal length.
- 65 EXPOSURE CONTROL SYSTEM RESPONSIVE TO DISTANCE:**
This subclass is indented under the class definition. Subject matter including means to adjust a shutter or diaphragm in accordance with the distance from the camera to an object.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
213+, for camera exposure control circuit in general.
FOR 710+, for foreign art collections involving a camera automatic exposure control system or device.
- 66 With linear solenoid or rotary motor:**
This subclass is indented under subclass 65. Subject matter wherein the adjusting means includes a prime mover using electromotive force to produce a mechanical rotation or translation.
- SEE OR SEARCH CLASS:
361, Electricity: Electrical Systems and Devices, subclasses 139+ for control circuits of electromechanical devices.
- 67 Electric distance signal:**
This subclass is indented under subclass 65. Subject matter including a circuit for producing a signal indicative of the distance between the camera and an object.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
281+, for a camera indicator, in general.
- 68 Selective guide number:**
This subclass is indented under subclass 65. Subject matter including a manually adjustable member to input to the adjusting means a value related to the light output capability of an illumination means.
- 69 Low light activated:**
This subclass is indented under subclass 65. Subject matter including means to detect the amount of scene light and to enable the adjusting means when the amount of scene light is below a preset level.

- 70 Having indicator:**
Subject matter under 65 including means to convey photographic related information to the camera operator.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
281+, for a camera indicator, in general.
- 71 HAVING LENS CONVERTER OR EXTENSION TUBE:**
This subclass is indented under the class definition. Subject matter including a unit removably mounted to the exposure objective which alters the focal length or permits closeup photography.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
73+, for lens substitution-type focal length modification.
530, for an adapter providing mechanical interface between a lens having one type of mount and a camera having a different type of mount.
544+, for a camera attachment, per se.
- 72 HAVING VARIABLE FOCAL LENGTH OF CAMERA OBJECTIVE:**
This subclass is indented under the class definition. Subject matter having camera structure and means to change the focal length of an exposure objective.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
60, for a camera with pseudo zoom capability.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 676+ for a lens, per se, with variable magnification (e.g., zoom).
- 73 Lens moves in or out of light path:**
This subclass is indented under subclass 72. Subject matter wherein a lens may be inserted or removed from the photographic light path.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
71, for a converter which may be removably attached to an exposure objective to vary focal length.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 672+ for a lens, per se, having selective magnification by exchanging a lens component.
- 74 Turret type:**
This subclass is indented under subclass 73. Subject matter including a rotating disc or table to insert or remove a lens from the photographic light path.
- 75 Motorized lens displacement:**
This subclass is indented under subclass 73. Subject matter wherein the lens is moved in or out of the light path by a motor.
- 76 Manually selected preset zoom position or range:**
This subclass is indented under subclass 72. Subject matter including a device to move the exposure objective to a memorized zoom position or within a zoom range manually chosen by a camera operator.
- 77 Automatic change of focal length:**
This subclass is indented under subclass 72. Subject matter wherein the focal length of a camera objective is adjusted in accordance with a sensed condition without operator intervention.
- 78 Constant image size:**
This subclass is indented under subclass 77. Subject matter wherein the exposure objective is adjusted to maintain the size of an image unchanged (e.g., as the object moves further away or closer to the camera).
- 79 Having focus operation:**
This subclass is indented under subclass 72. Subject matter including means to adjust the sharpness of an object image for focus compensation.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
89+, for camera exposure objective focusing, in general.
FOR 700+, for foreign art collections involving automatic camera focusing.
FOR 835+, for foreign art collections involving manual camera focusing.
- 80 Including focus/distance detecting circuit:**
This subclass is indented under subclass 79. Subject matter which has a circuit which produces a signal representative of a focus condition or range to an object.
- 81 And focal length responsive memory:**
This subclass is indented under subclass 80. Subject matter having an electronic static storage means containing data used to maintain focus of the exposure objective system as the focal length is varied.
- SEE OR SEARCH CLASS:
365, Static Information Storage and Retrieval, particularly subclasses 103+, 114+, and 174+ for a static storage element comprising semiconductor material.
- 82 Focus position adjusted according to focal length:**
This subclass is indented under subclass 80. Subject matter wherein objective focusing is modified by a change in focal length.
- 83 Having mechanical interlock:**
This subclass is indented under subclass 79. Subject matter having a mechanical connection between compensator and variator elements of the exposure objective in order to maintain focus as the focal length is varied.
- 84 Having direct viewfinder:**
This subclass is indented under subclass 72. Subject matter having a viewfinder with an optical path separate from the optical path to the photosensitive medium.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
373+, for camera structure with viewfinder, in general.
- FOR 859+, for foreign art collections involving a camera viewfinder.
- 85 Power zoom:**
This subclass is indented under subclass 72. Subject matter wherein a motor drives the exposure objective to change focal length.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 696+ for a variable magnification (e.g., zoom) lens, per se, having motor driven adjustment.
- 86 Speed control or step driving:**
This subclass is indented under subclass 85. Subject matter wherein the velocity of the exposure objective is regulated or where the exposure objective is moved in discrete increments.
- 87 Having position sensor:**
This subclass is indented under subclass 85. Subject matter which includes a device which detects the location of the exposure objective.
- 88 Having indicator:**
This subclass is indented under subclass 72. Subject matter having means to convey information to the camera operator.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
281+, for camera structure with display in general.
FOR 910+, for foreign art collections involving a camera indicator.
- SEE OR SEARCH CLASS:
345, Computer Graphics Processing and Selective Visual Display Systems, appropriate subclasses for a selective display in general.
- 89 WITH EXPOSURE OBJECTIVE FOCUSING MEANS, FOCUSING AID, OR RANGEFINDING MEANS:**
This subclass is indented under the class definition. Subject matter having means for adjusting the relative spacing between an exposure objective and the photographic medium to alter a sharpness of an object image; means for assisting a camera operator in making a visual

determination of image sharpness; or means for measuring a distance from a camera to an object.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

48, for control circuit for sequencing at least three functions which may include focusing.

79+, for camera structure with variable focal length of an exposure objective including focusing means.

461, and 509, for diaphragm structures, per se, which may open for focusing or viewing.

534, for a camera hood which may be used in focusing or viewing.

FOR 700+, for foreign art collections involving automatic camera focusing.

FOR 835+, for foreign art collections involving manual camera focusing.

SEE OR SEARCH CLASS:

250, Radiant Energy, subclass 201.1 for photocell controlling its optical path.

348, Television, subclasses 345+ for focus control of video camera.

352, Optics: Motion Pictures, subclass 140 for focus control with a motion picture camera.

355, Photocopying, subclass 56 for automatic focusing of a projection printer.

356, Optics: Measuring and Testing, subclasses 3+ for rangefinding, per se.

359, Optics: Systems (Including Communication) and Elements, subclasses 694+ for zoom-type lens adjusting mechanism, and subclasses 823+ for lens mount adjusting mechanism.

90 Lens resetting:

This subclass is indented under subclass 89. Subject matter having means to drive the exposure objective to an initial position.

91 Lens characteristic compensating:

This subclass is indented under subclass 89. Subject matter having means to correct the focusing or rangefinding means according to a condition (e.g., optical aberration, full open aperture, etc.) of the exposure objective.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

FOR 814, for a foreign art collection involving rangefinder adjustably coupled with focusing to compensate for change of camera lens.

SEE OR SEARCH CLASS:

359, Optics: Systems (Including Communication) and Elements, subclass 637 for path length or aberration correcting element in dividing, combining, or plural image forming, etc.

92 By selecting effective photoelements:

This subclass is indented under subclass 91. Subject matter including means to choose appropriate photosensitive elements for a condition of the exposure objective.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

100, for dual purpose photoelement in exposure objective focusing means or rangefinding means.

111, for optical detail with photoelement system in exposure objective focusing means or rangefinding means.

172, for photocell measuring the light output of an artificial illumination means.

SEE OR SEARCH CLASS:

250, Radiant Energy, subclasses 200+ for generic photocell circuits.

93 By modifying electric focus or drive signal:

This subclass is indented under subclass 91. Subject matter including means to correct the data of a focus condition signal of the exposure objective in accordance with a desired in-focus condition signal.

SEE OR SEARCH CLASS:

332, Modulators, subclasses 123+ and 159+ for frequency or amplitude modulation including stabilization, noise reduction, or compensation.

94 With mechanical rangefinder:

This subclass is indented under subclass 91. Subject matter including means to alter an interconnection between a nonelectrical device, which determines a distance from a

camera to an object, and an exposure objective to compensate for exposure objectives having different characteristics.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

138+, for mechanical rangefinding means for measuring the distance from the camera to the object.

SEE OR SEARCH CLASS:

356, Optics: Measuring and Testing, subclasses 3+ for rangefinders, per se.

95 Having pursuit mode:

This subclass is indented under subclass 89. Subject matter having a means to predict movement of the object for focusing the exposure objective.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

153, for actual detection of object motion.

SEE OR SEARCH CLASS:

348, Television, subclass 352 for video camera, system, and detail with motion detection in focus control.

96 Having accumulation photoarray and time control means:

This subclass is indented under subclass 89. Subject matter having an array of photoelements that integrates an amount of light received from the object over a time period for focusing the object image and a means to vary the time period.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

54, for camera shake sensing using photoarray.

SEE OR SEARCH CLASS:

250, Radiant Energy, subclasses 200+ for generic photocell circuits.

348, Television, subclass 332 for video camera, system and detail with array of photocells.

97 Temperature compensating:

This subclass is indented under subclass 89. Subject matter having a means to correct for changes in the operation of the focusing or

rangefinding means due to changes in temperature of the surrounding atmosphere.

SEE OR SEARCH CLASS:

359, Optics: Systems (Including Communication) and Elements, subclass 820 for lens mount with temperature compensation or control.

98 Ambient light compensating:

This subclass is indented under subclass 89. Subject matter having a means to correct for changes in the operation of the focusing or rangefinding means due to changes in light of a scene to be photographed.

99 With amplification control:

This subclass is indented under subclass 89. Subject matter wherein the means for focusing the exposure objective includes a variable gain circuit.

SEE OR SEARCH CLASS:

330, Amplifiers, subclass 254 and 278+ for semiconductor amplifying device with gain control means.

100 Dual purpose photoelement:

This subclass is indented under subclass 89. Subject matter having a light responsive element used for another purpose besides focusing or rangefinding.

(1) Note. A dual purpose photoelement is, for example, a photoelement that monitors the brightness of a scene and transmits signals to an automatic focusing control circuit.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

111, for optical detail with photoelement system in focusing or rangefinding means.

162, for photocell in the termination control of an illumination means.

171, for photocell used as a flash trigger.

172, for photocell measuring the light output of an artificial illumination means.

SEE OR SEARCH CLASS:

250, Radiant Energy, subclasses 200+ for generic photocell circuits.

101 With electronic filtering:

This subclass is indented under subclass 89. Subject matter including a circuit for eliminating unwanted components of a signal from the focusing or rangefinding means (e.g., spatial filtering, frequency filtering, etc.).

SEE OR SEARCH CLASS:

- 327, Miscellaneous Active Electrical Non-linear Devices, Circuits, and Systems, subclasses 551+ for unwanted signal suppression using electrical nonlinear devices.
- 333, Wave Transmission Lines and Networks, subclass 166 and 167+, for time domain or frequency domain filters.
- 702, Data Processing: Measuring, Calibrating, or Testing, subclasses 190+ for signal extraction or separation (e.g., filtering).
- 708, Electrical Computers: Arithmetic Processing and Calculating, subclasses 300+, and 819 for digital and analog filters, respectively.

102 Having in-focus threshold adjustable:

This subclass is indented under subclass 89. Subject matter including a circuit for generating a variable reference signal representing adequate sharpness of an object image (e.g., an in-focus condition of an object image).

103 Manually selected preset focus position or range:

This subclass is indented under subclass 89. Subject matter including a circuit to move the exposure objective to a memorized focus position chosen by the camera operator or within a manually chosen focus range.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 76, for a manually selected preset zoom position or range.

104 Reliability of focus/distance signal:

This subclass is indented under subclass 89. Subject matter including a circuit for judging a performance of focusing or rangefinding.

105 Using sound:

This subclass is indented under subclass 89. Subject matter wherein the distance from the camera to the object is determined by emitting or detecting sound.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 56, for camera controlled by electromagnetic signals or sound.
- FOR 701, for a foreign art collection involving camera autofocus using sound.

SEE OR SEARCH CLASS:

- 367, Communications, Electrical: Acoustic Wave Systems and Devices, subclasses 99+ for an acoustic echo system, per se, for distance or direction finding.

106 Having auxiliary illumination:

This subclass is indented under subclass 89. Subject matter which includes an artificial illumination source.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 4, for studio structure with lighting.
- 28, for underwater, waterproof, or water resistant camera having an illumination device.
- 61+, for flash system responsive to focal length or distance.

SEE OR SEARCH CLASS:

- 340, Communications: Electrical, subclass 541 for burglar alarms combined with means to photograph the burglar.
- 348, Television, subclasses 370+ for video camera, system, and detail with object or scene illumination.
- 352, Optics: Motion Pictures, subclasses 198+ for projection light sources.
- 355, Photocopying, subclasses 67+ for illumination systems with a projection printer.
- 361, Electricity: Electrical Systems and Devices, subclasses 248+ for electrical circuits of general utility for igniting combustible or explosive devices.
- 362, Illumination, subclasses 3+ for photographic lighting, per se.

- 431, Combustion, subclasses 357+ for combustible illuminating flash devices such as photographic bulbs.
- 107 Intersecting focusing lights:**
This subclass is indented under subclass 106. Subject matter having means to project light rays from two separate stations within the camera to a common point on the object for focusing or rangefinding.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 812, for a foreign art collection involving a camera rangefinder using focusing lights.
- 108 Intensity control:**
This subclass is indented under subclass 106. Subject matter having means to adjust the brightness of the artificial illumination source.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
205, for power supply control in artificial illumination means.
- 109 Having plural emitters:**
This subclass is indented under subclass 106. Subject matter having more than one artificial illumination source.
- SEE OR SEARCH CLASS:
362, Illumination, subclasses 11+ for photographic lighting with plural light sources.
- 110 Scanning emitter:**
This subclass is indented under subclass 106. Subject matter wherein the artificial illumination source emits light rays that move across the object.
- 111 Optical detail with photoelement system:**
This subclass is indented under subclass 89. Subject matter including a photoelement system and a specific light-modifying means used to control focusing or rangefinding.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 702+, for foreign art collections involving photoelectric-type, automatic camera focusing.
- SEE OR SEARCH CLASS:
250, Radiant Energy, subclasses 201.2+ for photocell controlling its own optical systems with automatic focus control.
- 348, Television, subclasses 336+ for video camera, system and detail with color separating optics.
- 359, Optics: Systems (Including Communication) and Elements, subclasses 618+ for light dividing, combining, or plural image forming.
- 112 Double wedge prism:**
This subclass is indented under subclass 111. Subject matter wherein the light modifying means includes at least two triangular shaped refracting elements.
- SEE OR SEARCH CLASS:
353, Image Projectors, subclass 81 for prism in an image projector light path.
- 359, Optics: Systems (Including Communication) and Elements, subclass 625 for focusing or defocusing using non-curved surfaces (e.g., prismatic, etc.), subclass 640 for light-dividing, combining, or image-forming by prismatic-type refractor, and subclass 837 for a prism with refracting surface.
- 362, Illumination, subclass 339 for light modifier with prismatic type refractor.
- 113 Microprism or lenslet:**
This subclass is indented under subclass 111. Subject matter wherein the light modifying means includes an array of refracting elements producing a plurality of identical images.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 621+ for light dividing, combining, or plural image forming using plural lenticular plates.
- 114 Dual reimage lens type:**
This subclass is indented under subclass 111. Subject matter wherein the light modifying means includes two lenses behind the lens system for producing images of the object.

115 Photosensor area with unique edge pattern:
This subclass is indented under subclass 111. Subject matter wherein the photoelement system includes a photosensor area having a specific edge configuration (e.g., a sawtooth, a curve, a ramp, etc.).

116 Scanning type:
This subclass is indented under subclass 111. Subject matter wherein the light modifying means includes a moving optical element other than an exposure objective.

SEE OR SEARCH CLASS:

359, Optics: Systems (Including Communication) and Elements, subclasses 209 through 221 and 223-226 for light deflection using a moving element.

117 Mirror type:
This subclass is indented under subclass 116. Subject matter wherein the moving optical element is reflective.

SEE OR SEARCH CLASS:

359, Optics: Systems (Including Communication) and Elements, subclasses 212+ and 223+ for light deflection by moving a reflective element.

118 Moving photocell:
This subclass is indented under subclass 111. Subject matter wherein the photoelement system is moved.

(1) Note. A photocell is an electronic device having electrical properties which vary in accordance with illumination.

SEE OR SEARCH CLASS:

250, Radiant Energy, subclasses 200+ for generic photocell circuits.

119 Photoelements with different optical path lengths:
This subclass is indented under subclass 111. Subject matter wherein the photoelement system includes photoelements located at different distances from the exposure objective.

(1) Note. The different distances may be the result of a light-modifying element that

changes the distance the light travels (i.e., optical distance) which may be different than the distance measured by a ruler (i.e., physical distance).

SEE OR SEARCH CLASS:

250, Radiant Energy, subclasses 200+ for generic photocell circuits.

120 With Position Sensitive Device (PSD):
This subclass is indented under subclass 111. Subject matter wherein the photoelement system is a light receiving element which can produce two or more current outputs upon receiving light from an object.

(1) Note. A distance from a camera to an object is measured based on the ratio of the current outputs of the PSD.

SEE OR SEARCH CLASS:

250, Radiant Energy, subclasses 206.1 and 206.2 for position sensitive device in photocell controlled circuit.

121 Plural focusing or rangefinding areas:
This subclass is indented under subclass 89. Subject matter including a circuit that obtains data from more than one object area for focusing or rangefinding.

122 Utilizing weight coefficients:
This subclass is indented under subclass 121. Subject matter having a circuit to assign a priority factor to each datum of the obtained data.

SEE OR SEARCH THIS CLASS, SUBCLASS:

104, for a circuit judging a performance of focusing or rangefinding.

123 Automatic area selection:
This subclass is indented under subclass 121. Subject matter wherein the object area is selected by a device using an algorithm for determining whether or not the object area is in focus.

SEE OR SEARCH THIS CLASS, SUBCLASS:

104, for a circuit judging a performance of focusing or rangefinding.

- 124 Single focus area with variable size or location:**
This subclass is indented under subclass 89. Subject matter having a photoarray and means for selecting a subset of the photoarray to perform focusing or rangefinding.
- 125 Processing circuit:**
This subclass is indented under subclass 89. Subject matter including details of an analyzing circuit that generates at least one signal for focusing or rangefinding.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
102, for a circuit generating a variable reference signal of an in-focus condition.
- 126 Null type or zero-difference type:**
This subclass is indented under subclass 125. Subject matter wherein the processing circuit generates two signals and detects an in focus condition when the two signals are essentially equal in magnitude.
- (1) Note. An in-focus condition occurs when the image of the object attains a desired sharpness.
- SEE OR SEARCH CLASS:
327, Miscellaneous Active Electrical Non-linear Devices, Circuits and Systems, subclasses 63+ for an amplitude discriminator, per se, having plural inputs.
- 127 Inflection point type:**
This subclass is indented under subclass 125. Subject matter wherein the processing circuit generates a signal and detects an in-focus condition when the signal is at a relative maximum or minimum magnitude (i.e., when the first derivative of the signal function becomes zero).
- SEE OR SEARCH CLASS:
327, Miscellaneous Active Electrical Non-linear Devices, Circuits and Systems, subclasses 58+ for signal extrema discriminating, per se.
- 128 Image correlation type:**
This subclass is indented under subclass 125. Subject matter wherein the processing circuit generates two image signals and determines the phase difference of the image signals for focusing or rangefinding.
- 129 Power supply control:**
This subclass is indented under subclass 89. Subject matter wherein the means for adjusting an exposure objective includes details of an electrical power generation, regulation, or control circuitry.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
301+, for generic camera power supply.
- SEE OR SEARCH CLASS:
323, Electricity: Power Supply or Regulation Systems, appropriate subclasses for power supply or regulation, in general.
348, Television, subclass 372 for power supply in video camera, system, and detail.
- 130 Focus lock:**
This subclass is indented under subclass 89. Subject matter including means to stop further focusing or rangefinding once an in focus condition of the object is obtained to allow a camera operator to change an area of a scene to be photographed while maintaining the in focus condition.
- 131 Manually actuated power focus:**
This subclass is indented under subclass 89. Subject matter wherein the means for adjusting the exposure objective includes a manually manipulated member (e.g. lever, dial, knob, push button) and a motor (spring or electrical type) responding to the manually manipulated member for displacing the exposure objective for focusing.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
68, for manual manipulator in exposure control system responsive to distance.
216, for manual manipulator in exposure control circuit with clamp or stop needle device.

- 218, for manual manipulator in exposure control circuit with direct drive galvanometer device.
- 297+, for operator controlled data entry into camera.
- 391, for a film drive double exposure prevention mechanism having manual override.
- 132 Dual purpose motor:**
This subclass is indented under subclass 89. Subject matter having a single motor for adjusting the exposure objective and for controlling an exposure system.
- 133 Lens drive circuit or motor structure:**
This subclass is indented under subclass 89. Subject matter wherein the means for adjusting the exposure objective includes a circuit and a motor, or details of the motor structure, responding to the circuit for displacing the exposure objective. (e.g. motor drive control circuit, piezoelectric motor, wave motor).
- SEE OR SEARCH THIS CLASS, SUBCLASS:
248, for shutter driven by piezoelectric motor.
256, for shutter controlled by stepping motor.
259+, for diaphragm controlled by stepping motor.
261, for diaphragm driven by piezoelectric motor.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 696+ for lens adjusting mechanism driven by motor.
- 134 Backlash or jam detection:**
This subclass is indented under subclass 133. Subject matter which includes means to correct a deviation that occurs in the displacement of the exposure objective or to detect a malfunction of the exposure objective adjusting means.
- 135 Speed control:**
This subclass is indented under subclass 133. Subject matter having means to control the rate of motion of the motor.
- 136 Duty cycle:**
This subclass is indented under subclass 135. Subject matter wherein the speed of the motor is controlled by varying the percentage of time that power is applied to the motor during a periodic power cycle.
- 137 Auto/manual mode selection:**
This subclass is indented under subclass 89. Subject matter having means to choose between automatic or manual focusing or rangefinding.
- 138 Mechanical rangefinder:**
This subclass is indented under subclass 89. Subject matter including nonelectrical means to measure the distance from the camera to the object.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
94, for mechanical rangefinding means with lens characteristic compensating.
FOR 809+, for foreign art collections involving camera structure and rangefinder.
- SEE OR SEARCH CLASS:
356, Optics: Measuring and Testing, subclasses 3+ for rangefinders, per se.
- 139 Rangefinder coupled with focusing:**
This subclass is indented under subclass 138. Subject matter wherein the mechanical rangefinder is connected to the exposure objective and both are moved simultaneously for focusing.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 810+, for foreign art collections involving camera structure and rangefinder coupled with focusing.
- 140 Having parallax correction:**
This subclass is indented under subclass 139. Subject matter including means to correct for the difference between an actual view covered by the exposure objective and an apparent view seen by the mechanical rangefinder.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

149, for parallax correction with viewfinder in focusing or rangefinding operation.

377, for parallax correction with viewfinder in general.

FOR 811, for a foreign art collection involving parallax correction in a camera rangefinder with coupled focusing.

141 Having viewfinder:

This subclass is indented under subclass 139. Subject matter including an optical device attached to or part of a camera to indicate an extent of a scene to be photographed.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

84, for direct viewfinder in camera structure with variable focal length of camera objective.

148, for viewfinder in focusing or rangefinding operation in general.

373+, for camera structure with viewfinder in general.

FOR 813, for a foreign art collection involving camera structure with rangefinder coupled with focusing and viewfinder.

FOR 839+, for foreign art collections involving manual camera focusing having viewfinder.

SEE OR SEARCH CLASS:

348, Television, subclass 341 for optical viewfinder in video camera, system, and detail.

356, Optics: Measuring and Testing, subclass 8, for combination of a rangefinder and viewfinder, per se.

142 Cam means to actuate rangefinder:

This subclass is indented under subclass 139. Subject matter wherein the mechanical rangefinder and the exposure objective are moved by a cam/follower mechanism.

(1) Note. A cam/follower mechanism is a device that produces movement by using a mechanical element that rides on the surface of a rotating or translating eccentric.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

FOR 815, for a foreign art collection involving a rangefinder actuated by a cam.

143 Lever means to actuate rangefinder:

This subclass is indented under subclass 139. Subject matter wherein the mechanical rangefinder and the exposure objective are moved by a lever/fulcrum mechanism.

(1) Note. A lever/fulcrum mechanism is a device that produces movement by using a mechanical element that rotates on a pivot point.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

FOR 816, for a foreign art collection involving a rangefinder actuated by a lever where the rangefinder is focus coupled.

144 Mechanical mechanism for displacement of exposure objective:

This subclass is indented under subclass 89. Subject matter having mechanical means (e.g., gear train, lever) for moving the exposure objective to obtain a sharp image.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

FOR 835+, for foreign art collections involving manual camera focusing.

SEE OR SEARCH CLASS:

359, Optics: Systems (Including Communication) and Elements, subclasses 822+ for lens mount with adjustable focusing mechanism.

145 Bed or bellows type:

This subclass is indented under subclass 144. Subject matter including a flat platform upon which the exposure objective moves or a pleated expandable element between the exposure objective and the camera body.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

341+, for bellows objective camera exclusive of recited focusing operation.

146 Having lock mechanism:

This subclass is indented under subclass 144. Subject matter including a means to prevent accidental movement of the exposure objective.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

344, for bellows objective camera with guide and lock.

503, for safety lock of shutter actuator.

147 Having indicator:

This subclass is indented under subclass 89. Subject matter having means to convey focusing or rangefinding information to a camera operator.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

70, for indicator in exposure control system responsive to distance.

88, for indicator in camera structure with a variable focal length camera objective.

163, for indicator in camera structure with artificial illumination termination control.

201+, for indicator with object exposure illumination.

239, for indicator in exposure control circuit with manually selective exposure mode.

255, for indicator in exposure control circuit of shutter speed function.

281+, for camera indicator in general.

515, for detachable film holder unit with integral means to show film use which is not visible to operator during normal operation.

578, for fluid treating apparatus testing, calibrating, or indicating.

FOR 709, for a foreign art collection involving automatic camera focusing with focus indicator.

FOR 838, for a foreign art collection involving manual camera focusing with distance indicator.

SEE OR SEARCH CLASS:

345, Computer Graphics Processing and Selective Visual Display Systems, subclass 84 for light-controlling display.

148 Having viewfinder:

This subclass is indented under subclass 89. Subject matter including an optical device attached to or part of the camera to indicate an extent of a scene to be photographed.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

141, for viewfinder and a mechanical rangefinder.

373+, for camera structure with viewfinder in general.

FOR 839+, for foreign art collections involving manual camera focusing with viewfinder.

FOR 859+, for foreign art collections involving camera detail including viewfinder.

SEE OR SEARCH CLASS:

356, Optics: Measuring and Testing, subclass 8 for combination of a rangefinder and viewfinder, per se.

149 Having parallax correction:

This subclass is indented under subclass 148. Subject matter including means to correct for a difference between an actual view covered by the exposure objective and an apparent view seen by the viewfinder.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

140, for parallax correction with mechanical rangefinder coupled with focusing.

377, for parallax correction with viewfinder in general.

SEE OR SEARCH CLASS:

348, Television, subclass 333.09 for parallax correction.

150 Including focusing screen:

This subclass is indented under subclass 148. Subject matter including an optical device having a surface upon which a scene image formed by the exposure objective can be seen.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 840+, for foreign art collections involving manual camera focusing with viewfinder including focusing screen.
- SEE OR SEARCH CLASS:
355, Photocopying, subclasses 44+ for focusing screen in projection printing or copying cameras.
- 151 Film and focusing screen interchangeable:**
This subclass is indented under subclass 150. Subject matter wherein the focusing screen and a photographic medium are successively brought into a same position relative to the exposure objective.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 808, for a foreign art collection involving camera having interchangeable film and focusing screen.
- 152 And reflector or refractor:**
This subclass is indented under subclass 150. Subject matter including an optical device that turns back or bends light (e.g., mirror or prism), behind the exposure objective for directing light to the focusing screen.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 841, for a foreign art collection involving manual camera focusing including focusing screen and reflector.
- 153 OBJECT MOTION DETECTION:**
This subclass is indented under the class definition. Subject matter wherein movement of a photographic subject is sensed.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
95, for focusing having means to predict object movement.
- 154 FORESHOOTING:**
This subclass is indented under the class definition. Subject matter including means to partially expose a photographic medium prior to the main picture taking exposure in order to modify photographic medium sensitivity.
- 155 WITH OBJECT ILLUMINATION FOR EXPOSURE:**
This subclass is indented under the class definition. Subject matter having means to illuminate an object with artificial light (illumination means; e.g., a flash device) for exposure purposes in combination with a camera structure.
- (1) Note. Exposure purposes include, for example, preexposure illumination for red-eye reduction, determining a proper exposure, or providing illumination when the shutter is open.
- (2) Note. See "OBJECT ILLUMINATION SUBCOMBINATIONS" note under the main class definition for line notes with other classes.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
4, for studio structure with lighting.
28, for underwater, waterproof, or water-resistant camera having an illumination device.
61+, for flash system responsive to focal length or distance.
106+, for focusing or rangefinding operation with auxiliary illumination.
FOR 713+, for foreign art collections involving a camera automatic exposure control system including artificial illumination.
FOR 771+, for foreign art collections involving object illumination with camera structure.
- SEE OR SEARCH CLASS:
313, Electric Lamp and Discharge Devices, see (2) Note above.
315, Electric Lamp and Discharge Devices: Systems, see (2) Note above.
340, Communications: Electrical, subclass 541 for burglar alarms combined with means to photograph the burglar.
348, Television, subclasses 370+ for video camera, system, and detail with object or scene illumination.
352, Optics: Motion Pictures, subclasses 198+ for projection light sources.
355, Photocopying, subclasses 67+ for illumination systems with a projection printer.

- 361, Electricity: Electrical Systems and Devices, subclasses 248+ for electrical circuits of general utility for igniting combustible or explosive devices.
- 362, Illumination, subclasses 3+ for photographic lighting, per se.
- 431, Combustion, see (2) Note above.
- 156 With Insulated Gate Bipolar Transistor:**
This subclass is indented under subclass 155. Subject matter having an IGBT connected in series with an illumination means circuit and used to control the start and termination of the artificial light producing from the illumination means.
- (1) Note. An Insulated Gate Bipolar Transistor (IGBT) is a voltage-controlled, three-terminal, switching device that is a combination of a transistor of pnpn structure and a MOS field effect transistor.
- SEE OR SEARCH CLASS:
327, Miscellaneous Active Electrical Non-linear Devices, Circuits, and Systems, subclasses 427+ and 438+ for switching device using field effect transistor or four-or-more layer device.
- 157 Having preexposure illumination:**
This subclass is indented under subclass 155. Subject matter in which the illumination means operates a first time to illuminate the object for a preparatory photographic operation prior to exposure and operates a second time to illuminate the object for exposure.
- (1) Note. A preparatory photographic operation includes red-eye reduction, photometering, test flashing, etc.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 715, for a foreign art collection involving automatic exposure control including artificial illumination and preexposure flashing.
- 158 For red-eye reduction:**
This subclass is indented under subclass 157. Subject matter wherein the preparatory photographic operation is to decrease the pupil size of a subject's eyes to minimize having the color of a subject's eyes appear red in the developed picture (e.g., red-eye effect).
- 159 Having artificial illumination termination control:**
This subclass is indented under subclass 155. Subject matter having a means to stop the illumination means from producing light whenever a proper amount of illumination has been given to the object.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 716+, for foreign art collections involving automatic exposure control including flash termination control of artificial illumination.
- SEE OR SEARCH CLASS:
315, Electric Lamp and Discharge Devices: System, subclasses 307+ for automatic current or voltage regulation of lamp or discharge devices.
- 160 Including multipurpose terminal:**
This subclass is indented under subclass 159. Subject matter having a detailed terminal which connects an illumination means to a camera body and through which plural distinct control signals are transmitted in either direction.
- 161 Including exposure control circuit:**
This subclass is indented under subclass 159. Subject matter having a circuit to control an exposure system (e.g., shutter or diaphragm).
- SEE OR SEARCH THIS CLASS, SUBCLASS:
166+, for exposure control circuit with illumination mode.
171, for photocell that responds to a burst of light for starting a flash operation or for starting an exposure system.
180+, for camera structure with object illumination and exposure synchronizer.
213+, for generic camera exposure control circuit.
FOR 720+, for foreign art collections involving an automatic exposure control system including artificial illumination where exposure is controlled without controlling flash.

SEE OR SEARCH CLASS:

- 348, Television, subclass 221.1, 229.1, and 362 through 368 for exposure control circuit in video camera, system, and detail.
- 352, Motion Pictures, subclass 141 and 177 for automatic diaphragm or shutter control in a motion picture camera; subclass 199 for projection light source synchronized with shutter.

162 Having photocell optical path structure:

This subclass is indented under subclass 159. Subject matter wherein the termination control includes a photocell and an optical means for conducting, directing, or modifying light reaching the photocell.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 111+, for optical detail with photoelement system in focusing or rangefinding operation of the camera.

SEE OR SEARCH CLASS:

- 250, Radiant Energy, subclass 201.1 for photocell controlling its own optical system.
- 348, Television, subclasses 336+ for video camera, system, and detail with color separating optics.
- 359, Optics: Systems (Including Communication) and Elements, subclasses 618+ for light-dividing, combining, or plural image forming.

163 Having indicator:

This subclass is indented under subclass 159. Subject matter having a means to convey information to a camera operator.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 70, for indicator in exposure control system responsive to distance.
- 88, for indicator in camera structure with a variable focal length camera objective.
- 147, for indicator with focusing and rangefinding means.
- 201+, for indicator with object exposure illumination.

- 239, for indicator in exposure control circuit with manually selective exposure mode.
- 255, for indicator in exposure control circuit of shutter speed function.
- 281+, for camera indicator in general.
- 515, for detachable film holder unit with integral means to show film use which is not visible to operator during normal operation.
- 578, for fluid treating apparatus testing, calibrating, or indicating.

SEE OR SEARCH CLASS:

- 345, Computer Graphics Processing and Selective Visual Display Systems, subclass 84 for light-controlling display.

164 Variable intensity control:

This subclass is indented under subclass 155. Subject matter having a means to adjust the brightness of the artificial light from the illumination means.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- FOR 718, for a foreign art collection involving automatic exposure control including artificial illumination which is charge level or power supply responsive.

SEE OR SEARCH CLASS:

- 315, Electric Lamp and Discharge Devices: Systems, subclasses 307+ for automatic current or voltage regulation.

165 Activated under low light condition:

This subclass is indented under subclass 155. Subject matter in which the illumination means is automatically enabled whenever scene light is insufficient for a proper exposure.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- FOR 719, for a foreign art collection involving automatic exposure control including artificial illumination automatically activated under low light condition.

- SEE OR SEARCH CLASS:
315, Electric Lamp and Discharge Devices: Systems, subclasses 307+ for automatic current or voltage regulation.
- 166 Exposure control circuit with illumination mode:**
This subclass is indented under subclass 155. Subject matter in which a circuit controlling a shutter or a diaphragm (i.e., exposure control circuit) is modified when the illumination means is intended to be used.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
161, for artificial illumination termination control with exposure control circuit.
171, for photocell that responds to a burst of light for starting a flash operation or for starting an exposure system.
180+, for camera structure with object illumination and exposure synchronizer.
213+, for generic camera exposure control circuit.
FOR 720+, for foreign art collections involving an automatic exposure control system including artificial illumination where exposure is controlled without controlling flash.
- SEE OR SEARCH CLASS:
348, Television, subclass 221.1 and 229.1 and 362 through 368 for exposure control circuit in video camera, system, and detail.
352, Motion Pictures, subclass 141 and 177 for automatic diaphragm or shutter control in a motion picture camera; subclass 199 for projection light source synchronized with shutter.
- 167 Exposure control circuit responsive to illumination source readiness:**
This subclass is indented under subclass 166. Subject matter having means to detect when the illumination means is enabled in order to automatically switch the shutter or diaphragm control circuit to the illumination mode of operation.
- 168 Program mode function:**
This subclass is indented under subclass 166. Subject matter in which the exposure control circuit automatically determines both an aperture value and exposure time value in accordance with a scene illumination (i.e., no manual setting of the aperture value or exposure time is required).
- SEE OR SEARCH THIS CLASS, SUBCLASS:
242+, for program mode in generic exposure control circuit.
- 169 Shutter speed function only:**
This subclass is indented under subclass 166. Subject matter in which the exposure control circuit adjusts an exposure time value to control a shutter only.
- (1) Note. Manual control circuit that has an illumination mode and that adjusts both exposure time value and aperture value is classified in subclass 166.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
242+, for program mode in generic exposure control circuit.
246+, for adjustment of shutter speed function only in generic exposure control circuit.
- 170 Diaphragm function only:**
This subclass is indented under subclass 166. Subject matter in which the exposure control circuit adjusts an aperture value to control a diaphragm only.
- (1) Note. Manual control circuit that has an illumination mode and that adjusts both exposure time value and aperture value is classified in subclass 166.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
242+, for program mode in generic exposure control circuit.
257+, for adjustment of diaphragm function only in generic exposure control circuit.

171 Having photocell used as flash trigger or used for camera release:

This subclass is indented under subclass 155. Subject matter in which a photoelement responds to a burst of light for starting an illumination means (a flash operation) or for starting the exposure system.

- (1) Note. Slave flashes are included in this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 59, for a remote control circuit which provides a wireless signal to achieve camera release.
 100, for dual purpose photoelement in focusing or rangefinding operation.
 263+, for a release control circuit, in general.
 FOR 724, for a foreign art collection involving automatic exposure control including a photocell used as flash trigger for artificial illumination.

172 Photocell directly illuminated:

This subclass is indented under subclass 155. Subject matter wherein a photoelement receives the artificial light directly from the illumination means to measure the light output of the illumination means.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 92, for lens characteristic compensating by selecting effective photoelements during focusing.
 96, for focusing or rangefinding with accumulation photoarray and time control.
 100, for dual purpose photoelement in focusing or rangefinding.
 111+, for focusing or rangefinding devices with optical details of a photoelement system.
 162, for photocell in the termination control of an illumination means.
 171, for photocell used as a flash trigger.
 269, for a photocell having specific camera location and responsive to an adjacent light emitter in general.

SEE OR SEARCH CLASS:

- 250, Radiant Energy, subclasses 200+ for generic photocell circuits.

173 Multiple flashing from a single unit for a single exposure:

This subclass is indented under subclass 155. Subject matter in which one flash device operates more than one time during one exposure.

174 Bounce type:

This subclass is indented under subclass 155. Subject matter in which the illumination means rotates about an axis to make the artificial light reflect from a surface, such as a ceiling, to the object to more fully diffuse the artificial light.

175 Variable illumination angle:

This subclass is indented under subclass 155. Subject matter wherein the illumination means includes means to change the cross-section area of the artificial light beam.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 274, for a camera photocell and means for changing the photocell field of view.
 FOR 795, for a foreign art collection involving camera structure and a variable angle artificial illumination system.

SEE OR SEARCH CLASS:

- 348, Television, subclass 369 for changing viewing angle via optics in video camera.
 362, Illumination, subclass 287 for angularly adjustable or repositionable light source with modifier.

176 Having flash built into camera:

This subclass is indented under subclass 155. Subject matter wherein the illumination means and a camera body are constructed as a single integrated unit.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- FOR 796, for a foreign art collection involving camera structure and flash built into camera.

- 177 **Pop-up flash:**
This subclass is indented under subclass 176. Subject matter wherein the single integrated unit includes a spring or a motor to extend the illumination means from the camera body.
- 178 **Folding flash:**
This subclass is indented under subclass 176. Subject matter wherein the illumination means is manually collapsed and extended from the camera body.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
348+, for folding or collapsible camera.
FOR 848, for a foreign art collection involving double exposure preventing with foldable camera.
- 179 **Flash mode mechanical exposure control:**
This subclass is indented under subclass 155. Subject matter including an all mechanical device to adjust an aperture size or an exposure time when the illumination means is enabled.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
472+, for shutter with mechanical delayed release means.
475+, for shutter with mechanically delayed closing.
- 180 **Having exposure synchronizer:**
This subclass is indented under subclass 155. Subject matter including means to actuate the illumination means in timed relationship with an exposure.
- (1) Note. This and the indented subclasses include shutter mechanism which is synchronized with an operation of an activation switch in a flash lamp circuit.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 776+, for a foreign art collection involving artificial illumination and camera synchronization.
- SEE OR SEARCH CLASS:
352, Optics: Motion Pictures, subclass 177 for motion picture camera with starting or stopping means responsive
- to shutter and subclass 199 for projection light sources synchronized with shutter.
- 181 **Shutter controlled by explosive force of flash device:**
This subclass is indented under subclass 180. Subject matter wherein a flash device includes a combustible material the ignition of which provides a mechanical force to open or close a shutter.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 777, for a foreign art collection involving artificial illumination with synchronized shutter controlled by explosive force of flash device.
- 182 **Multiple illumination units for single exposure:**
This subclass is indented under subclass 180. Subject matter including more than one illumination means actuated during a single exposure.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 779, for a foreign art collection involving artificial illumination and camera synchronizing including multiple illumination units.
- SEE OR SEARCH CLASS:
362, Illumination, subclasses 11+ for plural light sources in photographic lighting.
- 183 **Shutter relay or solenoid:**
This subclass is indented under subclass 180. Subject matter including electromagnetic means to actuate or release a shutter.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
463+, for shutter with dynamoelectric actuator.
FOR 780, for a foreign art collection involving artificial illumination and camera synchronizing with shutter relay or solenoid.

SEE OR SEARCH CLASS:

361, Electricity: Electrical Systems and Devices, subclasses 139+ for electromagnetic device control circuits.

184 Having pneumatic shutter release:

This subclass is indented under subclass 180. Subject matter including gas pressure means to actuate a shutter.

SEE OR SEARCH THIS CLASS, SUBCLASS:

476, for shutter mechanically delayed closing including pneumatic means.

499, for shutter with plural oscillating blades including pneumatic actuator.

FOR 781, for a foreign art collection involving artificial illumination and camera synchronizing having pneumatic shutter release.

185 Electromechanical energizing generator:

This subclass is indented under subclass 180. Subject matter including an electromechanical transducer which produces electric current for operating the illumination means.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 782, for a foreign art collection involving artificial illumination and camera synchronizing having energizing generator in flash unit.

186 Reflex mirror activates switch:

This subclass is indented under subclass 180. Subject matter including a reflex mirror which closes a switch for activating the illumination means when it moves from a viewing position to an exposure position.

(1) Note. A reflex mirror is a mirror which when in a viewing position diverts light from the objective to the viewfinder, and when in an exposure position allows light from an objective to pass to the photographic medium (film).

SEE OR SEARCH THIS CLASS, SUBCLASS:

352, for camera structure having reflex mirror to reflect image to film.

353, for a twin lens reflex camera.

354+, for a single lens reflex camera.

447, for camera detail with reflex mirror.

FOR 783, for a foreign art collection involving artificial illumination and camera synchronizing where a reflex mirror closes contacts.

187 Having time delay adjustment means:

This subclass is indented under subclass 180. Subject matter including means to alter the starting time of the illumination means with respect to an initiation of shutter opening.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 784+, for foreign art collections involving artificial illumination and camera synchronizing having time delay adjustment.

188 Positional:

This subclass is indented under subclass 187. Subject matter wherein a mechanical device is displaced for altering the starting time of the illumination means with respect to the initiation of shutter opening.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 785, for a foreign art collection involving artificial illumination and camera synchronizing having a positional time delay adjustment.

189 Detachable synchronizer:

This subclass is indented under subclass 180. Subject matter wherein the means to actuate the illumination means in timed relationship with the exposure can be disconnected from the camera.

(1) Note. Illumination means connected to a camera by a detachable cable are proper for this subclass.

(2) Note. The synchronizer is not part of the camera nor of flash unit but only attached thereto.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 786, for a foreign art collection involving artificial illumination and detachable camera synchronizer.

190 Convertible:

This subclass is indented under subclass 180. Subject matter including means for changing from one type of illumination means to another.

- (1) Note. A camera capable of alternatively using a percussive flash or electrically activated flash, or a flash unit capable of using two forms of flash bulbs, is proper for this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 787, for a foreign art collection involving a convertible artificial illumination source and camera synchronizing.

SEE OR SEARCH CLASS:

362, Illumination, subclass 7 for a convertible photographic lighting device.

191 Percussive illumination source:

This subclass is indented under subclass 180. Subject matter wherein the illumination means includes combustible illuminating material which is ignited by a mechanical striking blow.

SEE OR SEARCH THIS CLASS, SUBCLASS:

181, for a shutter controlled by the explosive force of a flash device.

FOR 788, for a foreign art collection involving a percussive illumination source and camera synchronizing.

192 Bulb substitution:

This subclass is indented under subclass 180. Subject matter wherein the illumination means includes extra flash bulbs which are automatically substituted for flash bulbs that have already been activated or are defective and which cannot produce light (e.g., flashcubes, flipflash, etc.).

- (1) Note. A flash bulb is a light bulb giving a brief, intense light for exposure.

SEE OR SEARCH THIS CLASS, SUBCLASS:

173, for multiple flashing from a single unit for a single exposure.

197, for bulb substitution of the illumination means without exposure synchronizer.

FOR 789+, for foreign art collections involving a flash unit having spare lamps and camera synchronizing.

SEE OR SEARCH CLASS:

362, Illumination, subclasses 13+ for lamp substitution or selection in photographic lighting devices.

193 Having unison film advancing and lamp switching:

This subclass is indented under subclass 192. Subject matter including means for coordinating an advance of a photographic medium (film) with the automatic substitution of the extra flash bulbs.

SEE OR SEARCH THIS CLASS, SUBCLASS:

387+, for camera structure with film drive.

FOR 790, for a foreign art collection involving a flash unit having spare lamps and camera synchronizing including unison film advance and lamp switching.

194 Curtain shutter:

This subclass is indented under subclass 180. Subject matter wherein the camera structure includes a shutter which is formed by a flexible sheet or curtain.

SEE OR SEARCH THIS CLASS, SUBCLASS:

479+, for curtain-type shutter, per se.

FOR 792, for a foreign art collection involving object illumination and camera synchronizing including a curtain shutter.

195 Actuated by shutter movement:

This subclass is indented under subclass 180. Subject matter wherein the camera structure includes a shutter and a switch responsive to the shutter movement for activating the illumination means.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 793, for a foreign art collection involving object illumination and camera synchronizing where flash unit contacts are actuated by shutter movement.

- 196 Bulb ejector:**
This subclass is indented under subclass 155. Subject matter including means to remove a flash bulb from its socket.
- 197 Bulb substitution:**
This subclass is indented under subclass 155. Subject matter wherein the illumination means includes extra flash bulbs which are automatically exchanged for flash bulbs that have already been activated or are defective and which cannot produce light (e.g., flashcubes, flipflash, etc.).
- SEE OR SEARCH THIS CLASS, SUBCLASS:
173, for multiple flashing from a single unit for a single exposure.
192, for bulb substitution of the illumination means in timed relationship with an exposure.
FOR 794, for a foreign art collection involving object illumination with camera structure having lamp substitution.
- SEE OR SEARCH CLASS:
362, Illumination, subclass 13 for lamp substitution or selection in photographic lighting devices.
- 198 Having adapter unit:**
This subclass is indented under subclass 155. Subject matter including an additional housing detachably mounted between the illumination means and the camera body to connect the illumination means to the camera.
- 199 Lens mounted illumination unit:**
This subclass is indented under subclass 155. Subject matter having a flash device attached onto an exposure objective (e.g., lens) of the camera.
- 200 Reflector detail:**
This subclass is indented under subclass 155. Subject matter wherein the illumination means includes structure of an optical element that turns back (i.e., reflects) the artificial light from the illumination means to an object.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 838+ for a mirror, per se.
362, Illumination, subclass 16 for specific light modifier in photographic lighting.
- 201 Having indicator:**
This subclass is indented under subclass 155. Subject matter having means to convey visible illumination information to a camera operator.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
70, for indicator in exposure control system responsive to distance.
88, for indicator in camera structure with a variable focal length camera objective.
147, for indicator with focusing and rangefinding means.
163, for indicator in camera structure with artificial illumination termination control.
239, for indicator in exposure control circuit with manually selective exposure mode.
255, for indicator in exposure control circuit of shutter speed function.
281+, for camera indicator in general.
515, for detachable, film-holder unit with integral means to show film use which is not visible to operator during normal operation.
578, for fluid-treating apparatus testing, calibrating, or indicating.
FOR 772+, for foreign art collections involving camera structure and object illumination having measuring, testing, or indicating.
- SEE OR SEARCH CLASS:
345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 84+ for light-controlling display.
362, Illumination, subclass 5 for measuring or indicating in photographic lighting devices.

- 202 Go/no-go indicator:**
This subclass is indented under subclass 201. Subject matter wherein the indicator informs a camera operator that the illumination means is ready to produce light.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 773+, for foreign art collections involving camera structure and object illumination having flash ready indicator.
- 203 Indicating power source status:**
This subclass is indented under subclass 202. Subject matter wherein the indicator shows a status of a capacitor charge level or a battery level of the illumination means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 774, for a foreign art collection involving camera structure and object illumination having flash ready indicator showing power source status.
- SEE OR SEARCH CLASS:
399, Electrophotography, subclass 37 for power supply diagnostics in an electrophotographic device.
- 204 Effective distance indicator:**
This subclass is indented under subclass 201. Subject matter wherein the indicator shows a distance an object should be from the camera for proper illumination of the object.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 775, for a foreign art collection involving camera structure and object illumination having distance indicator.
- 205 With power supply detail:**
This subclass is indented under subclass 155. Subject matter including a specific structure of an electrical power generation, regulation, distribution, or control circuitry of the illumination means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
301, for camera power supply in general.
- FOR 718, for a foreign art collection involving camera automatic exposure control including artificial illumination which is charge level or power supply responsive.
- SEE OR SEARCH CLASS:
323, Electricity: Power Supply or Regulation Systems, appropriate subclasses for power supply or regulation, in general.
- 206 Having DC to DC converter:**
This subclass is indented under subclass 205. Subject matter including means to step up or step down the direct voltage of the power supply.
- 207 EXPOSURE DATA FROM FILM CONTAINER:**
This subclass is indented under the class definition. Subject matter wherein exposure data which is stored on a photographic medium container is transferred to another camera component.
- (1) Note. Exposure data includes, for example, mode information, film speed, latitude, etc.
- (2) Note. Excluded herein is midroll interrupt means which may utilize information on a film container.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
390, for midroll interrupt means which may utilize information stored on a film container.
- 208 Electrical component on or in film container:**
This subclass is indented under subclass 207. Subject matter wherein the film container comprises an electrical circuit element.
- 209 Controlling optical filter:**
This subclass is indented under subclass 207. Subject matter wherein the exposure data is used to regulate an optical path filter.
- (1) Note. Intensity attenuation by such a filter may occur over a particular range of

optical frequencies or be uniform over all frequencies.

SEE OR SEARCH CLASS:

359, Optics: Systems (Including Communication) and Elements, subclasses 885+ for absorption filters, per se.

210 EXPOSURE DATA FROM FILM ITSELF:
This subclass is indented under the class definition. Subject matter wherein exposure data stored directly on a photographic medium is transferred to another camera component.

(1) Note. Exposure data includes mode information as well as such information as film speed or latitude.

(2) Note. Excluded herein is midroll interrupt means which may utilize information placed on film.

SEE OR SEARCH THIS CLASS, SUBCLASS:

390, for mid roll interrupt means which may utilize information stored on a photographic film.

211 EXPOSURE DATA FROM DETACHABLE MEMORY CARD:
This subclass is indented under the class definition. Subject matter wherein exposure data stored in a semiconductive memory device which is itself removable from a camera is transferred to another camera component.

(1) Note. This does not include, for example, a removable lens or electronic flash unit containing a fixed (i.e., nonremovable) semiconductor memory device.

(2) Note. Exposure data includes mode information as well as such information as film speed or latitude.

SEE OR SEARCH CLASS:

365, Static Information Storage and Retrieval, appropriate subclasses for memories, per se.

212 BULB OR TIME EXPOSURE MODE:
This subclass is indented under the class definition. Subject matter having means to keep the shutter open as long as the shutter release but-

ton is depressed or to open the exposure path upon the first depression of the shutter release button and to close the exposure path upon the second depression.

SEE OR SEARCH THIS CLASS, SUBCLASS:

263+, for a camera release control circuit.

502+, for a shutter release mechanism.

213 EXPOSURE CONTROL CIRCUIT:
This subclass is indented under the class definition. Subject matter having electric circuit means to control a shutter, a diaphragm, or another optical element; e.g., a light filter for regulating the amount of light reaching a photographic medium or film.

SEE OR SEARCH THIS CLASS, SUBCLASS:

48, for control circuit for sequencing at least three functions which may include exposure control.

63+, for exposure control system responsive to focal length.

65+, for exposure control system responsive to distance.

100, for photocell used for another purpose besides focusing or rangefinding.

161, for camera structure with artificial illumination termination control including exposure control circuit.

166+, for exposure control circuit with illumination mode.

171, for photocell that responds to a burst of light for starting a flash operation or for camera release.

180+, for camera structure with object illumination and exposure synchronizer.

263+, for a generic release control electrical circuit.

FOR 710+, for foreign art collections involving camera automatic exposure control system or device.

SEE OR SEARCH CLASS:

136, Batteries: Thermoelectric and Photoelectric, subclasses 243+ for photoelectric devices, per se.

250, Radiant Energy, subclasses 200+ for generic photocell circuits.

313, Electric Lamp and Discharge Device, subclasses 523+ for photosensitive devices and subclasses 103+ for pho-

- tosensitive devices having secondary emitters.
- 348, Television, subclass 221.1, 229.1, and 362 through 368 for exposure control in video camera.
- 352, Optics: Motion Pictures, subclass 141 and 177 for automatic diaphragm or shutter control in motion picture camera.
- 356, Optics: Measuring and Testing, subclasses 213+ for photometers.
- 399, Electrophotography, subclasses 51+ for control of exposure in an electrophotographic device.
- 214 Clamp or stop needle control device:**
This subclass is indented under subclass 213. Subject matter in which the shutter or the diaphragm responds to a device sensing a deflected position of a galvanometer needle.
- (1) Note. A galvanometer is an instrument having a needle attached to a coil rotated by electrodynamic force when a current is passed through the coil.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 738, for a foreign art collection involving camera automatic exposure control having clamp or stop needle-type control of a diaphragm shutter.
FOR 747, for a foreign art collection involving camera automatic exposure control having clamp or stop needle-type control of a diaphragm.
- SEE OR SEARCH CLASS:
324, Electricity: Measuring and Testing, subclasses 76.11+ for measuring electricity using a galvanometer.
- 215 To control exposure time:**
This subclass is indented under subclass 214. Subject matter in which the clamp or stop needle control device regulates exposure time of the shutter.
- 216 Override or manual control:**
This subclass is indented under subclass 214. Subject matter having camera operator manipulated means to regulate the amount of light reaching the photographic medium to super-
- secede an automatic exposure control or independent of automatic exposure control.
- (1) Note. Automatic exposure control is the adjustment of the shutter or the diaphragm in accordance with the brightness of the scene as detected by a photoelement without camera operator intervention.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
297+, for operator-controlled data entry into camera.
- 217 Direct drive galvanometer control device:**
This subclass is indented under subclass 213. Subject matter including a galvanometer having its rotation directly transmitted to control the shutter or the diaphragm.
- (1) Note. A galvanometer is an instrument having a needle attached to a coil rotated by electrodynamic force when a current is passed through the coil.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 749+, for foreign art collections involving camera automatic exposure control having direct drive galvanometer control of a diaphragm.
- SEE OR SEARCH CLASS:
324, Electricity: Measuring and Testing, subclasses 76.11+ for measuring electricity using a galvanometer.
- 218 Override or manual control:**
This subclass is indented under subclass 217. Subject matter having camera operator manipulated means to regulate the amount of light reaching the photographic medium to supersede automatic exposure control or independent of automatic exposure control.
- (1) Note. Automatic exposure control is the adjustment of the shutter or the diaphragm in accordance with the brightness of the scene as detected by a photoelement without camera operator intervention.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
297+, for operator-controlled data entry into camera.
- 219 Circuit detail:**
This subclass is indented under subclass 217. Subject matter in which the electric circuit means contains another component (e.g., a switch, transistor, etc.) in addition to a photo-cell or a battery.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 750, for a foreign art collection involving camera automatic exposure control having direct drive galvanometer control of a diaphragm which uses a bridge circuit.
- SEE OR SEARCH CLASS:
250, Radiant Energy, subclasses 200+ for generic photocell circuits.
- 220 Plural blades:**
This subclass is indented under subclass 217. Subject matter wherein the shutter or the diaphragm comprises more than one blade.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
497, for shutter with plural oscillating blades.
510, for diaphragm with plural pivoted blades.
- 221 Responsive to power source condition:**
This subclass is indented under subclass 213. Subject matter having a means to avoid changes in the operation of the exposure control means due to fluctuations in current or voltage of a power source (e.g., voltage/current regulator).
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
277+, for camera operation responsive to battery condition in general.
- 222 Bracketing:**
This subclass is indented under subclass 213. Subject matter having means to take a plurality of exposures at incremented exposure times or
- aperture values to obtain an intentional under, over, or proper exposure.
- 223 Override control:**
This subclass is indented under subclass 213. Subject matter having means to regulate the amount of light reaching the photographic medium to supersede automatic exposure control.
- 224 Photometer lock:**
This subclass is indented under subclass 213. Subject matter having means to allow a camera operator to store a value indicative of a scene brightness which will be used by the exposure control circuit during a future exposure (i.e., AE lock).
- 225 Color temperature compensation or detection:**
This subclass is indented under subclass 213. Subject matter having means to correct or sense a spectral distribution of light reaching the photographic medium.
- (1) Note. Spectral distribution is the function that represents intensity of each frequency of light in a visible spectrum.
- 226 Film latitude responsive:**
This subclass is indented under subclass 213. Subject matter wherein the exposure control circuit operates in accordance with a range of gray scale values or tonal values that can be recorded on the photographic medium; i.e., film latitude.
- 227 Maximum or minimum f-number responsive:**
This subclass is indented under subclass 213. Subject matter wherein the exposure control circuit takes into account the smallest and largest aperture size of an exposure objective.
- (1) Note. F-number represents light passing ability of a lens and is equal to the ratio of the lens focal length divided by the aperture size value.
- 228 Having log transformation circuit:**
This subclass is indented under subclass 213. Subject matter in which the exposure control circuit includes means to convert a voltage or

- current to a voltage or current having a logarithmic function.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 725+, for foreign art collections involving camera automatic exposure control having a logarithmic transformation.
- 229 Digital:**
This subclass is indented under subclass 228. Subject matter in which a counter, a register, or CPU is used in the transformation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 726, for a foreign art collection involving camera automatic exposure control having a digital logarithmic transformation.
- 230 Antilog:**
This subclass is indented under subclass 228. Subject matter in which the logarithmic voltage or current is transformed to its original value.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 727, for a foreign art collection involving camera automatic exposure control with log expansion.
- 231 Having temperature compensation circuit:**
This subclass is indented under subclass 213. Subject matter having a means to correct for changes in the operation of the exposure control means due to changes in ambient temperature.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 728, for a foreign art collection involving camera automatic exposure control with temperature compensation.
- 232 Viewfinder light compensation:**
This subclass is indented under subclass 213. Subject matter having a means to correct for changes in the operation of the exposure control means due to light entering a camera viewfinder eyepiece.
- 233 Having plural photocells:**
This subclass is indented under subclass 213. Subject matter having more than one light responsive device in the exposure control means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 729+, for foreign art collections involving camera automatic exposure control having plural photocells.
- SEE OR SEARCH CLASS:
250, Radiant Energy, subclasses 200+ for generic photocell circuits.
- 234 More than two photometering areas:**
This subclass is indented under subclass 233. Subject matter in which the light responsive device has more than two discrete light responsive areas.
- (1) Note. A single photocell array or self-scanning photocell is considered to have more than two discrete light responsive areas unless it is explicitly stated to have only two.
- 235 Velocity control of shutter or diaphragm component:**
This subclass is indented under subclass 213. Subject matter wherein the exposure control circuit controls the rate of motion of a shutter or diaphragm element.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
246, for exposure time circuit control of the shutter.
257, for aperture size circuit control of the diaphragm.
- 236 Look-up table memory:**
This subclass is indented under subclass 213. Subject matter wherein the exposure control circuit has an addressable semiconductor memory for storing exposure related values.
- SEE OR SEARCH CLASS:
365, Static Information Storage and Retrieval, appropriate subclasses for memories, per se.

237 Manually set limit of exposure time or aperture value:

This subclass is indented under subclass 213. Subject matter wherein the exposure control circuit responds to a manually set range restricting an exposure time or aperture value.

238 Manually selective exposure mode:

This subclass is indented under subclass 213. Subject matter in which a plurality of exposure modes can be selected by a camera operator.

- (1) Note. Exposure modes include, for example, manual mode, aperture priority, shutter priority, or program mode.

239 Having indicator:

This subclass is indented under subclass 238. Subject matter having means to convey photographic related information to the camera operator.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 70, for indicator in exposure control system responsive to distance.
 88, for indicator in camera structure with a variable focal length camera objective.
 147, for indicator with focusing and rangefinding means.
 163, for indicator in camera structure with artificial illumination termination control.
 201, for indicator with object illumination for exposure.
 255, for indicator in exposure control circuit of shutter speed function.
 281+, for camera indicator in general.
 515, for detachable film holder unit with integral means to show film use which is not visible to operator during normal operation.
 578, for fluid treating apparatus testing, calibrating, or indicating.

SEE OR SEARCH CLASS:

- 345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 84+ for light-controlling display.

- 352, Optics: Motion Pictures, subclasses 170+ for indicating means visible in viewfinder of motion picture camera.

240 Pulse train type:

This subclass is indented under subclass 213. Subject matter wherein the exposure control means includes means producing a series of pulses.

SEE OR SEARCH CLASS:

- 327, Miscellaneous Active Electrical Non-linear Devices, Circuits, and Systems, subclasses 291+ for pulse waveform generators, per se.

241 With exposure filter:

This subclass is indented under subclass 213. Subject matter includes an optical device which eliminates unwanted components of the light reaching the photographic medium.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 209, for exposure data derived from film container which controls an optical filter.
 275, for filter in front of photocell to block undesired wavelengths of light.

SEE OR SEARCH CLASS:

- 352, Optics: Motion Pictures, subclasses 212+ for shutters with light-modifying blades including means to alter the color content of light.
 359, Optics: Systems (Including Communication) and Elements, subclasses 586 through 590 for light interference using device with layers of specified refracting index, and subclasses 885+ for generic color filters.

242 Program mode:

This subclass is indented under subclass 213. Subject matter wherein the exposure control circuit adjusts both exposure time and aperture value in accordance with a detected brightness of the scene.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 168, for program mode circuits combined with object illumination.

FOR 742, for a foreign art collection involving camera automatic exposure control having selectable priority.

FOR 743, for a foreign art collection involving camera automatic exposure control having programmed control only.

243 Program selection:

This subclass is indented under subclass 242. Subject matter wherein a camera operator can choose one of a plurality of algorithms for adjusting both exposure time and aperture value.

244 Stepping motor type:

This subclass is indented under subclass 242. Subject matter in which the exposure control circuit drives a stepping motor for controlling the amount of light reaching the film.

- (1) Note. A stepping motor is an electromechanical device which rotates by a fixed amount each time it is pulsed.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

256, for shutter speed function controlled by stepping motor.

260, for diaphragm function controlled by stepping motor.

SEE OR SEARCH CLASS:

310, Electrical Generator or Motor Structure, subclass 49 for structure of stepping motor.

318, Electricity: Motive Power Systems, subclass 685 for stepping motors in a closed-loop servo environment, in general.

245 Manual Av circuit with automatic Tv circuit, or vice versa:

This subclass is indented under subclass 213. Subject matter including a manual aperture control circuit (Av circuit) responsive to a manually set aperture value with an automatic exposure time control circuit (Tv circuit) generating an exposure time calculated from the manually set aperture value and a detected scene brightness; or a manual Tv circuit responsive to a manually set exposure time value with an automatic Av circuit generating an aperture value calculated from the manually

set exposure time value and a detected scene brightness.

- (1) Note. Aperture value (Av) or exposure time value (Tv) is a logarithmic number indicative of the aperture size or the exposure time.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

FOR 741+, for foreign art collections involving camera automatic exposure control having circuit for controlling separate diaphragm and shutter.

246 Shutter speed function only:

This subclass is indented under subclass 213. Subject matter wherein the exposure control circuit determines an exposure time to control a shutter mechanism only.

- (1) Note. Manual control circuit for both Av and Tv is classified in subclass 213.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

169, for shutter speed function control in exposure control circuit with illumination mode.

452+, for a camera shutter, per se.

247 Shutter lag correction:

This subclass is indented under subclass 246. Subject matter wherein the exposure control circuit sets an exposure time that compensates for a built-in delay of the shutter mechanism.

248 Piezoelectric driven:

This subclass is indented under subclass 246. Subject matter wherein the exposure control circuit drives the shutter mechanism using a piezoelectric device.

- (1) Note. A piezoelectric device produces a voltage when stressed or undergoes mechanical stress when subjected to a voltage.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

261, for piezoelectric device driving a diaphragm mechanism.

- SEE OR SEARCH CLASS:
310, Electrical Generator or Motor Structure, subclasses 311+ for a piezoelectric device, per se.
- 249 Electro-optical element:**
This subclass is indented under subclass 246. Subject matter wherein the shutter is an electro-optical device (e.g., Kerr cell, liquid crystal device, etc.).
- SEE OR SEARCH THIS CLASS, SUBCLASS:
457, for an electro-optical camera shutter.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 237+ for an electro-optical modulator per se.
- 250 With digital counter:**
This subclass is indented under subclass 246. Subject matter in which the exposure control circuit contains a digital counter or register.
- SEE OR SEARCH CLASS:
377, Electrical Pulse Counters, Pulse Dividers, or Shift Registers: Circuits and Systems, appropriate subclasses for an electrical counter, per se.
- 251 Having RC circuit for timing:**
This subclass is indented under subclass 246. Subject matter in which the exposure control circuit contains at least one RC (resistor and capacitor) circuit, the time constant of which is used for exposure time control.
- 252 Including memory capacitor:**
This subclass is indented under subclass 251. Subject matter in which the RC circuit contains at least one capacitor to store a voltage proportional to a scene brightness for a period of time during which the exposure control circuit cannot sense the scene brightness.
- (1) Note. A single capacitor which performs both memory and timing is proper for this subclass.
- 253 Including plural selective capacitors:**
This subclass is indented under subclass 251. Subject matter having multiple capacitors from which to choose.
- 254 Including plural selective resistors:**
This subclass is indented under subclass 251. Subject matter having multiple resistors from which to choose.
- 255 Having indicator:**
This subclass is indented under subclass 251. Subject matter having means to convey photographic related information to the camera operator.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
70, for indicator in exposure control system responsive to distance.
88, for indicator in camera structure with a variable focal length camera objective.
147, for indicator with focusing and rangefinding means.
163, for indicator in camera structure with artificial illumination termination control.
201, for indicator with object illumination for exposure.
239, for indicator in exposure control circuit with manually selective exposure mode.
281+, for camera indicator, in general.
515, for detachable film holder unit with integral means to show film use which is not visible to operator during normal operation.
578, for fluid treating apparatus testing, calibrating, or indicating.
- SEE OR SEARCH CLASS:
345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 84+ for light-controlling display.
352, Optics: Motion Pictures, subclasses 170+ for indicating means visible in viewfinder of motion picture camera.

256 Stepping motor:

This subclass is indented under subclass 246. Subject matter in which the exposure control circuit drives a stepping motor for driving the shutter mechanism.

- (1) Note. A stepping motor is an electromechanical device which rotates by a fixed amount each time it is pulsed.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 244, for stepping motor under program mode of an exposure control circuit.
260, for stepping motor driving a diaphragm mechanism.

SEE OR SEARCH CLASS:

- 310, Electrical Generator or Motor Structure, subclass 49 for structure of stepping motor.
318, Electricity: Motive Power Systems, subclass 685 for stepping motors in a closed-loop servo environment.

257 Diaphragm function only:

This subclass is indented under subclass 213. Subject matter wherein the exposure control circuit determines an aperture value to control a diaphragm mechanism only.

- (1) Note. Manual control circuit for both Av and Tv is classified in subclass 213.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 170, for diaphragm function control in exposure control circuit with illumination mode.
505+, for a camera diaphragm, per se.
FOR 746+, for foreign art collections involving camera automatic exposure control having circuit for controlling diaphragm only.

258 Pawl/ratchet type:

This subclass is indented under subclass 257. Subject matter in which the diaphragm is adjusted to obtain a specific aperture size by an engagement of a mechanical device allowing rotation in only one direction (i.e., a pawl) with a toothed wheel (i.e., a ratchet).

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- FOR 748, for a foreign art collection involving camera automatic exposure control having a ratchet/pawl mechanism for controlling diaphragm only.

SEE OR SEARCH CLASS:

- 74, Machine Elements and Mechanisms, subclasses 575+ for generic pawls and ratchets.

259 Servo motor type:

This subclass is indented under subclass 257. Subject matter wherein the diaphragm mechanism is controlled by an electric motor, the rotation or speed of which is controlled by a corrective electrical signal that is fed back to the motor circuit.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- FOR 751+, for foreign art collections involving camera automatic exposure control having servo motor type circuit for controlling diaphragm only.

SEE OR SEARCH CLASS:

- 318, Electricity: Motive Power Systems, subclasses 560+ for motors in a positional servo system.

260 Using stepping motor:

This subclass is indented under subclass 259. Subject matter in which the exposure control circuit drives a stepping motor for driving the diaphragm to obtain a specific aperture size.

- (1) Note. A stepping motor is an electromechanical device which rotates by a fixed amount each time it is pulsed.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 244, for stepping motor under program mode of an exposure control circuit.
256, for stepping motor driving a shutter mechanism.

- FOR 752, for a foreign art collection involving camera automatic exposure control having servo motor-type circuit which uses a stepping motor for controlling diaphragm only.

SEE OR SEARCH CLASS:

- 310, Electrical Generator or Motor Structure, subclass 49 for structure of stepping motor.
- 318, Electricity: Motive Power Systems, subclass 685 for stepping motors in a closed-loop servo environment, in general.

261 Piezoelectric driven:

This subclass is indented under subclass 257. Subject matter wherein the exposure control means drives the diaphragm mechanism using a piezoelectric device.

- (1) Note. A piezoelectric device produces a voltage when stressed, or undergoes mechanical stress when subjected to a voltage.

SEE OR SEARCH THIS CLASS, SUBCLASS:

248, for shutter driven by piezoelectric device.

FOR 753, for a foreign art collection involving camera automatic exposure control having special driving arrangement for controlling diaphragm only.

SEE OR SEARCH CLASS:

- 310, Electrical Generator or Motor Structure, subclasses 311+ for a piezoelectric device, per se.

262 Electro-optical element:

This subclass is indented under subclass 257. Subject matter wherein the diaphragm is an electro-optical device (e.g., Kerr cell, liquid crystal device, etc.).

SEE OR SEARCH THIS CLASS, SUBCLASS:

506, for an electro-optical camera diaphragm.

FOR 753, for a foreign art collection involving camera automatic exposure control having special driving arrangement for controlling diaphragm only.

SEE OR SEARCH CLASS:

- 359, Optics: Systems (Including Communication) and Elements, subclasses 237+ for an electro-optical modulator, per se.

263 CAMERA RELEASE CONTROL CIRCUIT:

This subclass is indented under the class definition. Subject matter having an electrical circuit which controls a signal starting a photographic exposure cycle.

SEE OR SEARCH THIS CLASS, SUBCLASS:

59, for a wireless remote control camera release circuit.

502+, for a mechanical shutter release or actuator means.

264 Self-timer:

This subclass is indented under subclass 263. Subject matter including a circuit which delays for a time the signal which starts a single photographic exposure cycle.

- (1) Note. An operator initiates the self-timer and then may enter the picture before a shutter is actuated.

SEE OR SEARCH THIS CLASS, SUBCLASS:

59, for a wireless remote control camera release circuit.

286, for a self-timer indicator.

472, for a mechanically delayed release means (e.g., self-timer).

FOR 878, for a foreign art collection involving an electrical circuit providing delayed shutter release.

265 Intervalometer (e.g., rapid sequence):

This subclass is indented under subclass 263. Subject matter wherein a signal starting an exposure cycle is produced at a particular time period after the end of a previous exposure cycle.

SEE OR SEARCH THIS CLASS, SUBCLASS:

387+, for camera structure with film drive, in general.

- 266 Safety lock:**
This subclass is indented under subclass 263. Subject matter having means to inhibit the camera release signal to prevent accidental initiation of an exposure cycle.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
503, for a mechanical shutter safety lock.
- 267 WITH LIGHT PIPE OR GUIDE:**
This subclass is indented under the class definition. Subject matter including an optical waveguide (e.g., a fiber optic cable) which conveys light between points.
- SEE OR SEARCH CLASS:
385, Optical Waveguides, appropriate subclasses for an optical waveguide, per se.
- 268 HAVING PHOTOCELL AT SPECIFIC POSITION WITHIN CAMERA:**
This subclass is indented under the class definition. Subject matter in which a photocell is located with respect to a specific camera structure.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
54, for camera shake sensing using photoarray.
92, for lens characteristic compensating by selecting effective photoelements.
96, for focusing or rangefinding with accumulation photoarray and time control.
100, for dual purpose focusing photoelement.
111+, for focusing or rangefinding devices with optical details of a photoelement system.
162, for photocell in the termination control of an illumination means.
171, for photocell used as a flash trigger.
172, for photocell measuring the light output of an artificial illumination means.
570, for fluid-treating apparatus with photocell control.
- SEE OR SEARCH CLASS:
250, Radiant Energy, subclasses 200+ for generic photocell circuits.
- 269 Photocell responsive to adjacent illuminator:**
This subclass is indented under subclass 268. Subject matter wherein the photocell is radiated by a light emitter in close proximity to the photocell.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
172, for photocell measuring light output of an object exposure illumination means.
- 270 Movable into or out of light path:**
This subclass is indented under subclass 268. Subject matter including a mechanism to displace the photocell into or out of the light entering the camera.
- 271 In viewfinder area:**
This subclass is indented under subclass 268. Subject matter in which the photocell is mounted in or in the vicinity of a viewfinder.
- 272 Having two or more mirrors:**
This subclass is indented under subclass 268. Subject matter in which the camera has at least two mirrors and the photocell receives light reflected by at least one of the mirrors.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 850+ for generic plural mirror systems.
- 273 Having light reflected from film or shutter or through film:**
This subclass is indented under subclass 268. Subject matter in which the photocell receives light reflected from a surface of the film in the camera or from a surface of the camera shutter or through the film.
- 274 Having means for changing the photocell field of view:**
This subclass is indented under subclass 268. Subject matter including means to change a cross-section area through which the photocell receives light from a scene to be photographed.

- SEE OR SEARCH CLASS:
348, Television, subclass 369 for changing viewing angle via optics in video camera.
- 275 With color filter:**
This subclass is indented under subclass 268. Subject matter includes a filter in front of the photocell to block undesired wavelengths of light.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
209, for exposure data derived from film container which controls an optical filter.
241, for exposure filter in exposure control circuit.
- SEE OR SEARCH CLASS:
352, Optics: Motion Pictures, subclasses 212+ for shutters with light-modifying blades including means to alter the color content of light.
359, Optics: Systems (Including Communication) and Elements, subclasses 586 through 590 for light interference using device with layers of specified refracting index and subclasses 885+ for generic color filters.
- 276 Having variable light transmission means:**
This subclass is indented under subclass 268. Subject matter wherein the camera structure has means to adjust a light flux received at the photocell from an object to be photographed.
- (1) Note. Predetector adjustable apertures or neutral density filters are properly classified here.
- (2) Note. This does not include the camera diaphragm.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclass 888 for a neutral density absorption filter.
- 277 BATTERY INSERTION/REMOVAL/DEPLETION RESPONSIVE:**
This subclass is indented under the class definition. Subject matter wherein a camera element is responsive to loading, unloading, or low voltage condition of a battery.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
221, for exposure control circuit responsive to power source condition.
301+, for camera structure with power supply details.
- 278 Having battery backup:**
This subclass is indented under subclass 277. Subject matter having a device for maintaining power upon removal or depletion of primary battery.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
280, for a power switch responsive camera system.
- 279 Having indicator:**
This subclass is indented under subclass 277. Subject matter having means to convey information regarding battery insertion, removal, or depletion to a camera operator.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
281+, for camera structure with indicator, in general.
- 280 INITIALIZING/STORING RESPONSIVE TO POWER SWITCH:**
This subclass is indented under the class definition. Subject matter having means to set a camera element or information to a preset condition upon turning a power switch on or off.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
277+, for camera responsive to battery insertion, removal, or depletion.
301+, for camera structure with power supply details.

281 HAVING CAMERA INDICATOR:

This subclass is indented under the class definition. Subject matter having means to convey photographic information to a camera operator.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 70, for indicator in exposure control system responsive to distance.
- 88, for indicator in camera structure with a variable focal length camera objective.
- 147, for indicator with focusing and rangefinding means.
- 163, for indicator in camera structure with artificial illumination termination control.
- 201, for indicator with object illumination for exposure.
- 239, for indicator in exposure control circuit with manually selective exposure mode.
- 255, for indicator in exposure control circuit of shutter speed function.
- 515, for detachable film holder unit with integral means to show film use which is not visible to operator during normal operation.
- 578, for fluid treating apparatus testing, calibrating, or indicating.
- FOR 709, for a foreign art collection involving automatic camera focusing including focus indicator.
- FOR 763, for a foreign art collection involving an aerial camera and indicator.
- FOR 772+, for foreign art collections involving object illumination and indicator.
- FOR 819, for a foreign art collection involving motor film drive and spring tension indicator.
- FOR 838, for a foreign art collection involving manual camera focusing and distance indicator.
- FOR 855, for a foreign art collection involving film advancing and film position indicating.
- FOR 910+, for foreign art collections involving camera detail indicator or setting means.

SEE OR SEARCH CLASS:

- 345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 84+ for light-controlling display.
- 352, Optics: Motion Pictures, subclasses 170+ for indicating means visible in viewfinder of motion picture camera.

282 Display intensity control:

This subclass is indented under subclass 281. Subject matter having means to adjust a brightness of the indicator to render it easily observed.

SEE OR SEARCH CLASS:

- 345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 589 through 605 for intensity control for a visual display system.

283 Sound:

This subclass is indented under subclass 281. Subject matter in which the indicator produces a sound or vibration perceptible to the camera operator.

284 Film condition indicator:

This subclass is indented under subclass 281. Subject matter in which the indicator shows a status of the film resulting from a camera operation (e.g., end-of-film, film frame count, etc.).

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 515, for a film cassette or cartridge with integral means to show film use which is not visible to an operator during normal operation.
- FOR 855, for a foreign art collection involving film advancing means including film position indicator.

285 Double exposure warning:

This subclass is indented under subclass 284. Subject matter wherein the indicator shows that a film section has been exposed and the film must be fed to bring another section into position before another exposure can be made.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
389, for film drive with double exposure prevention.
- 286 Self-timer indicator:**
This subclass is indented under subclass 281. Subject matter in which the indicator conveys information concerning delayed release of a shutter.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
264, for camera release control circuit with self-timer.
- 287 Nonmechanical visual display:**
This subclass is indented under subclass 281. Subject matter in which the indicator produces an optically perceivable indication without using moving parts (e.g., lamps, LED's, etc.).
- (1) Note. Excluded herein are mere comparison type indicators which produce light adjusted by an operator until the light intensity matches scene brightness.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
295, for comparison-type camera indicator.
- SEE OR SEARCH CLASS:
345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 84+ for light-controlling display.
- 288 Having holographic display:**
This subclass is indented under subclass 287. Subject matter in which the indicator exhibits a three-dimensional pattern (i.e., in holographic form).
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 1+ for generic holographic system or element.
- 289 Ambient light condition display using one of three light emitters:**
This subclass is indented under subclass 287. Subject matter in which brightness of a scene is shown as above, below, or correct for photographic operation by using one of three indicator lamps.
- SEE OR SEARCH CLASS:
345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 589 through 605 and subclass 697 for selective color attributes with optical means in visual display systems.
- 290 Bar graph/scale display:**
This subclass is indented under subclass 287. Subject matter in which the indicator is shown in the form of a bar whose length varies essentially in a continuous manner or by lighting one of a plurality of emitters adjacent to a printed legend.
- SEE OR SEARCH CLASS:
345, Computer Graphics Processing and Selective Visual Display Systems, subclasses 35+ and subclass 440.2 for bar graph dis.
- 291 Pictograph display:**
This subclass is indented under subclass 287. Subject matter in which the indicator shows an image symbol.
- SEE OR SEARCH CLASS:
345, Computer Graphics Processing and Selective Visual Display Systems, subclass 618 for display of specified image of abnormal condition.
- 292 Character segment display:**
This subclass is indented under subclass 287. Subject matter in which the indicator includes a plurality of segments arranged to produce optically viewable letters or numbers when selected segments are activated.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
318, for camera structure with data recording including segmented alphanumeric indicia.

- SEE OR SEARCH CLASS:
345, Computer Graphics Processing and Selective Visual Display Systems, subclass 34 and subclasses 467-472.3 for character display.
- 293 Galvanometer type:**
This subclass is indented under subclass 281. Subject matter in which the indicator includes a needle of a galvanometer.
- SEE OR SEARCH CLASS:
324, Electricity: Measuring and Testing, subclasses 76.11+ for measuring electricity using a galvanometer.
- 294 Having plural pointers or match needle:**
This subclass is indented under subclass 293. Subject matter which includes a second needle manually displaced to a predetermined position with respect to the needle of the galvanometer in order to adjust a camera mechanism.
- 295 Comparison type:**
This subclass is indented under subclass 281. Subject matter in which the indicator produces light that is adjusted by a camera operator until the intensity of the light matches a scene brightness.
- 296 Having display in viewfinder:**
This subclass is indented under subclass 281. Subject matter wherein the indicator is disposed within the field of view of the viewfinder of the camera.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
373+, for camera structure with viewfinder, in general.
- SEE OR SEARCH CLASS:
348, Television, subclasses 333.01 through 333.13 for video camera with viewfinder or display monitor.
352, Optics: Motion Pictures, subclasses 170+ for indicating means visible in viewfinder of motion picture camera.
- 297 HAVING OPERATOR CONTROLLED DATA ENTRY INTO CAMERA:**
This subclass is indented under the class definition. Subject matter having means to input desired photographic operating parameters or modes into a camera system by an operator.
- (1) Note. Also included here are patents reciting specific locations of camera manual manipulators.
- (2) Note. Excluded herein are mechanisms which merely manually override double exposure prevention in a camera film drive.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
57, for wireless remote camera system data/mode entry.
68, for manual manipulator in exposure control system responsive to distance.
131, for manual manipulator actuating power focus.
216, for manual manipulator in exposure control circuit with clamp or stop needle device.
218, for manual manipulator in exposure control circuit with direct drive galvanometer device.
391, for a film drive double exposure prevention mechanism having manual override.
543, for photographic switch details.
- 298 Manual manipulators on lens unit or lens mount:**
This subclass is indented under subclass 297. Subject matter wherein manual manipulators for entering data into the camera system are on the exposure objective or lens mount.
- 299 Manual manipulators on camera body unit:**
This subclass is indented under subclass 297. Subject matter wherein manual manipulators for entering data into the camera system are on the camera housing.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
535+, for a camera housing detail.

300 Manual data entry using peripheral device:
This subclass is indented under subclass 297. Subject matter wherein data is entered into the camera system using an external device (e.g., bar code readers, external general purpose computers, etc.).

- (1) Note. For data entry using detachable memory cards, see subclass 211.

301 WITH POWER SUPPLY DETAIL:
This subclass is indented under the class definition. Subject matter including specifics of electrical power generation, regulation, or control.

SEE OR SEARCH CLASS:

- 323, Electricity: Power Supply or Regulation Systems, appropriate subclasses for generic power supply or regulation.
399, Electrophotography, subclasses 88+ for controlling power supply in an electrophotographic device.

302 Having time-out circuit:
This subclass is indented under subclass 301. Subject matter having a circuit which disables camera power after a predetermined time period.

303 Power distribution management:
This subclass is indented under subclass 301. Subject matter wherein power is selectively supplied to various camera elements for power management.

304 Having nonelectrochemical power source:
This subclass is indented under subclass 301. Subject matter wherein power is generated by means other than an electrochemical battery.

- (1) Note. This might include, for example, piezoelectric or solar cell sources.

SEE OR SEARCH CLASS:

- 136, Batteries: Thermoelectric and Photoelectric, appropriate subclasses for a thermoelectric or solar cell power source, per se.
310, Electrical Generator or Motor Structure, subclasses 311+ for a piezoelectric generator.

305 COLOR IMAGE USING MONOCHROME FILM:

This subclass is indented under the class definition. Subject matter having means for recording an image set on a light sensitive surface of a monochromatic base, the individual pictures or images representing an intensity image of the scene photographed corresponding to a particular color which is different from the color of the other images of the set.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 322+, for means to record plural images, in general.

SEE OR SEARCH CLASS:

- 352, Optics: Motion Pictures, subclasses 66+ for motion picture cameras using monochromatic film for recording color images.
353, Optics: Image Projectors, subclasses 31+ for composite color image projectors.
355, Photocopying, subclasses 32+ for multicolor photocopying projecting and copying cameras; subclass 88, for multicolor contact printing.
359, Optics: Systems (Including Communication) and Elements, subclass 502 for polarization elements with color filters, subclasses 618+ for light dividing, combining or plural image forming and subclasses 885+ for absorption filters, per se.
399, Electrophotography, appropriate subclasses for plural diverse color involving exposure, development, transfer, fixing, and cleaning in an electrophotographic device.
430, Radiation Imagery Chemistry: Process, Composition, or Product Thereof, appropriate subclasses for chemical radiation imagery involving color.

306 Using a lenticular element:

This subclass is indented under subclass 305. Subject matter including means involving the interposition of a planar surface composed of a plurality of transmitting elements, each having a curved surface, between a subject and the light-sensitive surface.

- (1) Note. Lenticular elements may be applied directly or in conjunction with a photosensitive film. Apparatus designed for use with such a composite film that necessitates the inclusion of additional color selective elements (e.g., filters, etc.) is classified herein.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 322+, and particularly 327, for means to record plural images that include lenticular elements and not limited by color selective means.

SEE OR SEARCH CLASS:

- 353, Optics: Image Projectors, appropriate subclasses for projectors involving lenticular film.
- 359, Optics: Systems (Including Communication) and Elements, subclasses 619+ for a surface composed of lenticular elements, per se.

307 Plural color filter sections:

This subclass is indented under subclass 306. Subject matter including a color selective element composed of plural portions that are selective to different colors, e.g., trichromic filter disk composed of red, green, and blue selective juxtaposed sections or portions.

SEE OR SEARCH CLASS:

- 359, Optics: Systems (Including Communication) and Elements, subclasses 885+ for absorption filters, per se.

308 Simultaneous recording of images:

This subclass is indented under subclass 305. Subject matter wherein the individual pictures are recorded on separate light sensitive surfaces at the same time.

- (1) Note. Recording the individual pictures or images on contiguous portions of the same film by separate light paths is proper for this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 305, where the images are recorded successively.

- 306, for producing a color image using monochrome film utilizing an element comprising a planar surface having multiple lenses thereon.

- 322+, for plural simultaneous image recording, in general.

309 Images recorded on separate films:

This subclass is indented under subclass 308. Subject matter wherein the separate light sensitive surfaces are on different light sensitive material.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 446, for plural film in a camera.

310 WITH DATA RECORDING:

This subclass is indented under the class definition. Subject matter including camera structure and means for storing photographic information either on the photographic medium or on a separate storage element.

- (1) Note. Photographic information includes exposure information as well as other information related to a photograph such as date, place, or operator name.

- (2) Note. The data recorded is auxiliary to the image being recorded.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 322+, for plural image recording.
- 549+, for phototype composing having letter or other symbol transfer to a photographic medium.

FOR 766+, for foreign art collections involving exposure identification.

SEE OR SEARCH CLASS:

- 346, Recorders, appropriate subclasses for data recorders, per se.
- 352, Optics: Motion Pictures, subclass 90 for devices to place titles on motion pictures.
- 355, Photocopying, subclass 39 and 40+ for means to mark photosensitive surfaces which are also used to copy an original or carrier (document or negative) and does not involve a three dimensional subject.

- 378, X-Ray or Gamma Ray Systems or Devices, subclasses 162+ for exposure identification of X-ray photographs.
- 311 Data for control of subsequent processing of film:**
This subclass is indented under subclass 310. Subject matter wherein the data recorded by the camera provides input for processing apparatus.

SEE OR SEARCH THIS CLASS, SUBCLASS:
60, for a camera with pseudo zoom data recording.
- 312 Sound:**
This subclass is indented under subclass 310. Subject matter wherein audio information is recorded.
- 313 Having handwritten data:**
This subclass is indented under subclass 310. Subject matter wherein photographic data is placed on the photographic medium by a hand-held instrument.
- 314 Having transfer strip:**
This subclass is indented under subclass 313. Subject matter wherein data is transferred to the photographic medium from a carrier by pressure.

SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 768+, for foreign art collections involving exposure identification by transfer strip.

SEE OR SEARCH CLASS:
462, Books, Strips and Leaves for Manifolding, subclasses 25+ for transfer strips, per se.
- 315 Optical:**
Subject matter under 310 wherein data is recorded using light.

SEE OR SEARCH CLASS:
346, Recorders, subclasses 107.1+ for photographic data recorders, per se.
- 316 Mask or stencil:**
This subclass is indented under subclass 315. Subject matter including means for blocking light from the film to form indicia.

SEE OR SEARCH THIS CLASS, SUBCLASS:
435+, for means to variably mask portions of a frame, in general.
556+, for phototype composing using stencil-type characters.
FOR 768+, for foreign art collections involving exposure identification by stencil.
- 317 Having auxiliary illumination:**
This subclass is indented under subclass 316. Subject matter wherein a camera itself generates light for illuminating the mask or stencil.
- 318 Segmented alphanumeric indicia:**
This subclass is indented under subclass 315. Subject matter wherein discrete optical elements are patterned in such a way that indicia representing letters or numbers are formed.
- 319 Magnetically on film or film cassette:**
This subclass is indented under subclass 310. Subject matter wherein data is recorded onto a magnetic medium which is a part of the film or film cassette.

SEE OR SEARCH CLASS:
360, Dynamic Magnetic Information Storage and Retrieval, appropriate subclasses for dynamic magnetic information storage or retrieval means.
365, Static Information Storage and Retrieval, appropriate subclasses for statically storing or retrieving information on a magnetic medium in general.
- 320 Recording head position control:**
This subclass is indented under subclass 319. Subject matter which includes means to locate a recording head relative to the magnetic medium.

SEE OR SEARCH CLASS:
360, Dynamic Magnetic Information Storage and Retrieval, subclasses 75+ for automatic head control in dynamic

magnetic information storage or retrieval, in general.

321 Removable semiconductor memory:

This subclass is indented under subclass 310. Subject matter wherein data is recorded into an integrated circuit memory temporarily attached to a camera body or film cassette.

SEE OR SEARCH THIS CLASS, SUBCLASS:

211, for a detachable memory card which provides exposure data to a camera system.

SEE OR SEARCH CLASS:

365, Static Information Storage and Retrieval, appropriate subclasses for statically storing or retrieving information utilizing semiconductive elements in general.

322 PLURAL IMAGE RECORDING:

This subclass is indented under the class definition. Subject matter having means to photographically record (1) plural images on one or more frames by a single exposure or (2) plural exposures on a single frame.

(1) Note. As indicated in the search notes below, this section does not provide for a plurality of single plate or frame exposures taken successively with a corresponding movement of unexposed plate or film frames into exposing position.

SEE OR SEARCH THIS CLASS, SUBCLASS:

305+, for means for forming plural color sensitive images utilizing monochrome film.

353, and 354+, for reflex cameras which may allow successive recording of plural images.

360+, for a magazine camera which may allow recording plural images successively.

323 Having alternative single image recording:

This subclass is indented under subclass 322. Subject matter including means to select plural image recording or single image recording during a single exposure.

(1) Note. A stereoscopic camera including means to allow making nonstereoscopic exposures such as single frame exposures are proper for this subclass.

324 Stereoscopic:

This subclass is indented under subclass 322. Subject matter wherein the plural images recorded correspond to the perspectives offered by a right and left eye.

SEE OR SEARCH CLASS:

352, Optics: Motion Pictures, subclasses 57+ for stereoscopic motion picture cameras.

353, Optics: Image Projectors, subclasses 7+ for stereoscopic image projectors.

359, Optics: Systems (Including Communication) and Elements, subclasses 462+ for miscellaneous stereoscopic devices.

378, X-Ray or Gamma Ray Systems or Devices, subclasses 41+ for method and apparatus for making stereoscopic X-ray photographic exposures.

325 Plural camera arrangement:

This subclass is indented under subclass 324. Subject matter having more than one camera each with its own lens and housing system.

(1) Note. Included here is a stereoscopic plural camera mount, per se.

SEE OR SEARCH THIS CLASS, SUBCLASS:

326+, for plural spaced lens systems with a common housing, and subclasses 322+ for dual cameras which record plural images and are not limited to stereoscopic recording.

326 Single camera with plural spaced objectives:

This subclass is indented under subclass 324. Subject matter wherein a single camera has plural spaced lenses for recording separate images.

327 With lenticular screen, mirror, or prism:

This subclass is indented under subclass 326. Subject matter including a plane surface composed of a plurality of transmitting curved elements, a reflector, or a transparent body

bounded in part by two plane surfaces angularly related (i.e., not parallel) where at least one of the plane surfaces is internally reflecting or refracting to impinging incident light.

SEE OR SEARCH THIS CLASS, SUBCLASS:

331, for plural image reflection onto a single objective.

SEE OR SEARCH CLASS:

359, Optics: Systems (Including Communication) and Elements, subclasses 619+ for a surface composed of lenticular elements, subclasses 831+ for prisms, and subclasses 838+ for reflectors.

328 Having film feed or guide:

This subclass is indented under subclass 326. Subject matter including means to move a photographic medium or to direct a photographic medium in a desired path.

SEE OR SEARCH THIS CLASS, SUBCLASS:

387+, for camera structure with film drive, in general.

440+, for film-restraining means or a pressure plate.

329 Having adjustable camera mount:

This subclass is indented under subclass 324. Subject matter including means to adjust the positioning of a camera to effect the recording of plural images that are to give the impression of solidity or relief.

(1) Note. An adjustable single camera stereoscopic mount, per se, is classified here.

SEE OR SEARCH THIS CLASS, SUBCLASS:

325, for a stereoscopic plural camera mount, per se.

FOR 914, for a foreign art collection involving a stereoscopic mounting or rest.

330 Having lenticular screen:

This subclass is indented under subclass 324. Subject matter including a planar surface composed of a plurality of transmitting elements each having a curved surface.

SEE OR SEARCH CLASS:

359, Optics: Systems (Including Communication) and Elements, subclasses 619+ for a surface composed of lenticular elements.

331 Plural image reflection onto single objective:

This subclass is indented under subclass 324. Subject matter including means having two or more mirrors or prisms for reflecting their images onto a lens.

SEE OR SEARCH THIS CLASS, SUBCLASS:

351, for means to reflect an image to film.

SEE OR SEARCH CLASS:

359, Optics: Systems (Including Communication) and Elements, subclasses 831+ for prisms, per se, and subclasses 838+ for reflectors, per se.

332 Simultaneous recording of plural distinct subjects:

This subclass is indented under subclass 322. Subject matter which records at the same time two or more images of subjects at locations having diverse optical paths to a camera focal plane.

SEE OR SEARCH THIS CLASS, SUBCLASS:

310+, for image and photographic data recording.

FOR 770, for a foreign art collection involving exposure identification including auxiliary identification photographing system.

333 Simultaneous recording of single subject:

This subclass is indented under subclass 322. Subject matter having means within an integral housing to facilitate simultaneously recording plural images of a single subject.

SEE OR SEARCH THIS CLASS, SUBCLASS:

308+, for simultaneous recording of color images using monochrome film.

324+, for recording plural stereoscopic images.

- 334 Different planes:**
This subclass is indented under subclass 333. Subject matter wherein the images are recorded in diverse planes.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
309, for simultaneous recording of color images using monochrome film where the images are recorded on separate films.
- 335 Sequential recording on different areas of a single frame:**
This subclass is indented under subclass 322. Subject matter wherein exposures are made upon successive portions of a single frame of a photographic medium.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
20+, for a scanning camera.
- SEE OR SEARCH CLASS:
378, X-Ray or Gamma Ray Systems or Devices, subclasses 167+ for photographic detector supports including film and plate moving and positioning means.
- 336 Including rotary objective or photographic medium support:**
This subclass is indented under subclass 335. Subject matter wherein successive exposures are obtained by relative revolving movement of a lens and a light sensitive surface holder between exposures.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
387+, for camera structure and film drive, in general.
- 337 Including preobjective mask:**
This subclass is indented under subclass 335. Subject matter wherein an element is disposed or attached between the subject and the lens to limit the exposure areas of the successive portions of exposed material.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
435+, for post-objective masking, in general.
- 338 Including shiftable objective or photographic medium support:**
This subclass is indented under subclass 335. Subject matter wherein successive sections are brought into exposure position by relative shifting movement between a lens and a light sensitive surface holder.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
336, for relative rotary movement.
387+, for camera structure and film drive, in general.
- 339 Shiftable photographic medium support only:**
This subclass is indented under subclass 338. Subject matter wherein only the light sensitive surface holder is moved.
- 340 Including shiftable post-objective mask:**
This subclass is indented under subclass 335. Subject matter wherein successive light sensitive sections are exposed by shifting an apertured opaque device that is located between the objective and the light sensitive surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
435+, for post-objective masking, in general.
- 341 BELLOWS OBJECTIVE CAMERA:**
This subclass is indented under the class definition. Subject matter including a flexible (usually pleated) opaque cylinder expandable along the optical axis of an objective and which connects the objective with a camera body.
- (1) Note. The expandable (i.e., bellows) portion of this type of camera which joins an objective to a camera body may either be recited or disclosed for classification herein.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 145, for a mechanical focusing mechanism in a bed or bellows camera in which an exposure objective is displaced.
 350, for a foldable or collapsible camera with pivoting lens which may have bellows structure joining diverse camera housing portions.
 373+, for a bellows viewfinder.
 FOR 805, for a foreign art collection involving a bellows reflex camera having single objective.
 FOR 848, for a foreign art collection involving double exposure prevention having extensible camera structure.
- SEE OR SEARCH CLASS:
 138, Pipes and Tubular Conduits, subclasses 121+ for corrugated bellows, per se.
- 342 Camera front or lens mount angularly adjustable:**
 This subclass is indented under subclass 341. Subject matter wherein a camera front or objective mount is pivotable with respect to a photographic medium plane so that the plane of the camera front or objective mount is not parallel to the photographic medium plane.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 437, for a camera back or film carrier angularly adjustable.
- 343 Having lens movable in its plane:**
 This subclass is indented under subclass 341. Subject matter including means to move an objective within a single plane that is perpendicular to the lens axis.
- SEE OR SEARCH CLASS:
 359, Optics: Systems (Including Communication) and Elements, subclasses 813+ for lens support, per se, which includes relatively movable portions to permit movement of the lens in a single plane.
- 344 Having guide and lock:**
 This subclass is indented under subclass 341. Subject matter including guides or ways on a camera base along which a lens holder moves and clamping means to hold the lens holder at various positions along the base.
- 345 Having hinged base attached to bellows:**
 This subclass is indented under subclass 341. Subject matter including a hinge joining a base or front of the camera with the pleated expandable element.
- 346 Having self-erecting lens holder:**
 This subclass is indented under subclass 345. Subject matter wherein a lens holder, connected to the bellows, is moved into operating position as the hinged base or front is moved from a closed inoperative position to an open operative position.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 349, for a folding camera which stows an axially moving nonbellows objective.
 350, for a folding camera which stows a pivoting nonbellows objective.
- 347 Hinged linkage between objective mount and housing:**
 This subclass is indented under subclass 341. Subject matter wherein hinged braces between an objective support and a camera housing provide support for the bellows or help to maintain the bellows at a particular extension.
- (1) Note. A typical example of such a structure is the "lazy tong".
- 348 FOLDING OR COLLAPSIBLE CAMERA:**
 This subclass is indented under the class definition. Subject matter including means to effect a reduction in camera size from an operative condition to an inoperative condition.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 341+, for a bellows objective camera.
 373+, for a folding or collapsible viewfinder.
 FOR 805, for a foreign art collection involving a folding reflex camera having single objective.

- FOR 848, for a foreign art collection involving double exposure prevention having folding camera structure.
- 349 Having axially moving lens:**
This subclass is indented under subclass 348. Subject matter wherein a camera lens moves parallel to its optical axis during folding or collapsing.
- 350 Having pivoting lens:**
This subclass is indented under subclass 348. Subject matter wherein a camera lens partially rotates about an axis located in the plane of the lens during folding or collapsing.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
346, for a bellows objective camera with self-erecting lens holder.
- 351 HAVING MEANS TO REFLECT IMAGE TO FILM:**
This subclass is indented under the class definition. Subject matter including a mirror to reflect the light rays from an object onto a light sensitive surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
21, for a scanning camera which includes a reflector.
FOR 797, for a foreign art collection involving a camera which reflects an image to film.
- SEE OR SEARCH CLASS:
352, Optics: Motion Pictures, subclass 94 for a motion picture camera with deflected field of view.
359, Optics: Systems (Including Communication) and Elements, subclasses 838+ for a mirror, per se.
- 352 Having reflex mirror:**
This subclass is indented under subclass 351. Subject matter which includes means to reflect light passing through the objective lens to a viewfinder.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
186, for illumination means and a reflex camera.
- 353, for a twin lens reflex camera.
354+, for a single lens reflex camera.
447, for details of a camera reflex mirror.
- 353 TWIN LENS REFLEX CAMERA:**
This subclass is indented under the class definition. Subject matter comprising camera structure with two similar lenses, one a camera lens and one for a viewfinder, which are so coupled that they both focus on exactly the same plane and the viewfinder shows the view as focused by the camera lens.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
186, for illumination means and a reflex camera.
354+, for a single lens reflex camera.
447, for details of a camera reflex mirror.
FOR 798, for a foreign art collection involving a twin lens reflex camera.
- 354 SINGLE LENS REFLEX CAMERA:**
This subclass is indented under the class definition. Subject matter comprising camera structure with one lens and a mirror to reflect image light passing through the lens to a viewfinder.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
186, for illumination means and a reflex camera.
353, for a twin lens reflex camera.
447, for details of a camera reflex mirror.
FOR 799+, for foreign art collections involving a reflex camera with single objective.
- 355 Having shutter and additional means to block light from film (e.g., screen):**
This subclass is indented under subclass 354. Subject matter having means to obstruct light from the light sensitive surface in addition to a shutter.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 801, for a foreign art collection involving a reflex camera with single objective and light blocking from film.
- 356 Having manually operated mirror:**
This subclass is indented under subclass 354. Subject matter wherein the mirror is moved into and out of the image light path by hand.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 803, for a foreign art collection involving a reflex camera with single objective having manipulating means.
- 357 Having focal plane shutter:**
This subclass is indented under subclass 354. Subject matter including a shutter positioned adjacent to the plane where an image will be formed on a photographic medium.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
452+, for details of a camera shutter.
- 358 With mirror support or drive:**
This subclass is indented under subclass 354. Subject matter which includes a mount for the mirror or means to move the mirror.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
356, for a manually operated mirror.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 871+ for a mirror with mount, per se.
- 359 Plate camera:**
This subclass is indented under subclass 354. Subject matter including two or more light sensitive surfaces, herein called "plates," not in the same plane which are encased within a camera and are brought to the exposure position one at a time without opening the receiver to light.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
360+, for a generic magazine camera which utilizes photographic plates.
FOR 804, for a foreign art collection involving a reflex plate camera having single objective.
- 360 MAGAZINE CAMERA:**
This subclass is indented under the class definition. Subject matter wherein two or more light-sensitive surfaces (herein called "plates"), not in the same plane, are encased within a camera structure or light-tight receiver attachable thereto and are brought to the exposure position one at a time without opening the camera or receiver to light or removing the receiver from the camera.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
30+, for self-developing cameras which may include a film magazine.
335+, for plural image recording formed successively on a single plate.
359, for a plate-type single lens reflex camera.
517+, for plate or cut film holders.
FOR 822+, for foreign art collections involving a magazine camera.
- SEE OR SEARCH CLASS:
352, Optics: Motion Pictures, subclasses 98+ for individual picture plate type.
378, X-Ray or Gamma Ray Systems or Devices, subclasses 167+ for photographic detector supports including film and plate moving and positioning means.
- 361 Rotatable magazine:**
This subclass is indented under subclass 360. Subject matter wherein the plates are mounted on a turret or drum magazine which is rotatable 360 degrees and which places a new plate in the exposure position upon a predetermined amount of rotation (e.g., a turret may have 2 or more sides with plates mounted on each side and pivoted at its center).
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 823, for a foreign art collection involving a magazine camera having a rotatable magazine.
- 362 Flexible light guard for entrance of hand:**
This subclass is indented under subclass 360. Subject matter wherein a flexible end to the magazine box or light guard admits the hand of the operator to the box to permit a change of the plate which is effected by hand guidance of the changing mechanism or by a handhold on the plate.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
590+, for a fluid-treating, dark cabinet with hand insertion.

FOR 824, for a foreign art collection involving a magazine camera with a hand-changed plate.

363 Tilting receiver:

This subclass is indented under subclass 360. Subject matter wherein the change of the plate from storage to exposure position or vice versa, necessitates vertical tilting of a receiver holding more than one plate in different planes.

- (1) Note. Receivers which are hinged to the camera or to another in order that they may be moved out of the way when not in use, but which can be kept immovable for successive transfers, are not placed here, but are classified according to the method of transfer.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

FOR 825, for a foreign art collection involving a magazine camera with tilting magazine.

SEE OR SEARCH CLASS:

221, Article Dispensing, subclasses 186+ for article dispensers in which the supply container is movably mounted for dispensing.

364 Flexible carrier for plates:

This subclass is indented under subclass 360. Subject matter wherein the magazine is characterized by flexible carrier means (e.g., a belt) for transferring the plates between the storage and exposure positions.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

FOR 826+, for foreign art collections involving a magazine camera having flexible carrier for plates.

365 Having tab means:

This subclass is indented under subclass 364. Subject matter wherein each sensitized plate has its own carrier with a tab portion for manually pulling the plate around a curved track to or from the exposure area.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

FOR 827, for a foreign art collection involving a magazine camera having flexible carrier for plates including tab means.

366 Sliding plate:

This subclass is indented under subclass 360. Subject matter wherein plates are moved in a straight line.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

FOR 828+, for foreign art collections involving a magazine camera having a sliding plate.

SEE OR SEARCH CLASS:

221, Article Dispensing, subclasses 268+ for article dispensers not otherwise provided for having reciprocating (including oscillating) means for ejecting the articles therefrom.

367 Sliding and return:

This subclass is indented under subclass 366. Subject matter wherein plates are moved to an exposure position and back to the receiver in alternate directions.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

FOR 829, for a foreign art collection involving a magazine camera having a plate which slides and returns.

368 Intermediate exposure chamber:

This subclass is indented under subclass 366. Subject matter wherein the plate is moved to an exposure position between two other plate receivers.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

FOR 830, for a foreign art collection involving a magazine camera having a sliding plate and intermediate exposure chamber.

369 Quarter-turned plate:

This subclass is indented under subclass 360. Subject matter including two receivers with plates, the planes of these plates are perpendic-

ular to each other, and means for exposing the plates or transferring them from one receiver to the other.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

363, for rotating an entire receiver.
FOR 831+, for foreign art collections involving a magazine camera having a quarter-turned plate.

370 Tilting:

This subclass is indented under subclass 369. Subject matter wherein the plate transfer from one receiver to the other is effected by swinging the plate upon an axis in or near one of its edges.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

363, for rotating an entire receiver.
FOR 832+, for foreign art collections involving a magazine camera having a tilting quarter-turned plate.

371 Base guide:

This subclass is indented under subclass 370. Subject matter wherein the plate is guided at its base during movement between its two storage positions.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

FOR 833, for a foreign art collection involving a magazine camera having a tilting quarter-turned plate with base guides.

372 Rear plates replaceable:

This subclass is indented under subclass 360. Subject matter wherein the plates are removed from one end or face of a receiver and replaced at the other end or back of the same receiver in a plane parallel to their first positions.

(1) Note. A space does not cease to be the same receiver in the sense used in the above definition because it is divided by a partition whose plane is parallel to that of the plates and which moves transversely to this plane.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

362, for hand-changed plates using a flexible light guard.

363, for tilting the receiver.

FOR 834, for a foreign art collection involving a magazine camera with rear plate replaceable.

373 WITH VIEWFINDER:

This subclass is indented under the class definition. Subject matter including camera structure combined with means to show a scene that will be included in a frame.

(1) Note. If no camera structure is claimed then the viewfinders, per se, will be classified elsewhere.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

141, for rangefinder and viewfinders.

148+, for lens focusing and viewfinders.

296, for a camera indicator in a viewfinder.

FOR 859+, for foreign art collections involving a camera viewfinder.

SEE OR SEARCH CLASS:

33, Geometrical Instruments, subclasses 227+ for finders that do not deflect light.

348, Television, subclasses 333 and 341 for television camera viewfinder or display monitor.

352, Optics: Motion Pictures, subclass 171 for viewfinder and motion picture cameras.

356, Optics: Measuring and Testing, subclasses 247+ for fiducial instruments.

374 Electronic:

This subclass is indented under subclass 373. Subject matter in which the scene is electrically reproduced on a viewing screen, such as an LCD monitor.

SEE OR SEARCH CLASS:

348, Television, subclass 333.01 for television camera electronic viewfinder or display monitor.

- 375 Lensless:**
This subclass is indented under subclass 373. Subject matter in which the scene is viewed directly without any optics.
- 376 Pose reflector:**
This subclass is indented under subclass 373. Subject matter having means to reflect an image of a human subject as seen in the viewfinder back to the human subject.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 860, for a foreign art collection involving a camera viewfinder having pose reflector.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 838+ for mirror, per se.
- 377 Parallax correction:**
This subclass is indented under subclass 373. Subject matter including means to correct the difference between an actual view covered by the exposure objective and an apparent view seen by the viewfinder.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
140, for parallax correction in a mechanical rangefinder coupled with focusing.
- FOR 861, for a foreign art collection involving a camera viewfinder having parallax correction.
- SEE OR SEARCH CLASS:
348, Television, subclass 333.09 for parallax correction.
- 378 Selective or adjustable viewfinder field:**
This subclass is indented under subclass 373. Subject matter having means to choose between plural viewfinder fields or to vary a viewfinder field.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 862, for a foreign art collection involving a camera viewfinder having selective or adjustable viewfinder field.
- 379 Zoom:**
This subclass is indented under subclass 378. Subject matter in which a focal length or angle of view can be adjusted continuously.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
72+, for variable focal length of camera objective.
- 380 Variable size of mask opening:**
This subclass is indented under subclass 378. Subject matter in which a portion of the scene that is viewed is changeable by altering the dimension of a viewing aperture.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
435+, for variable frame masking.
- 381 Variable orientation of finder image:**
This subclass is indented under subclass 378. Subject matter in which the position of a mask opening is changeable between horizontal and vertical.
- 382 Lens detail:**
This subclass is indented under subclass 373. Subject matter including specifics of an optical component that refractively focuses light.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 642+ for a lens, per se.
- 383 Selective or adjustable viewing position:**
This subclass is indented under subclass 373. Subject matter which permits an operator to view one of several viewfinder images on fixed diverse planes or which permits angular adjustment of the viewfinder.
- (1) Note. The viewfinder may have a viewing window or screens which are at 90 degrees to each other.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 863, for a foreign art collection involving a camera viewfinder having selective or adjustable viewing position.

- 384 With prism:**
This subclass is indented under subclass 373. Subject matter having means to internally reflect or refract the light such as a pentaprism or porro prism.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 831+ for a prism, per se.
- 385 With reflector:**
This subclass is indented under subclass 373. Subject matter having means for returning light striking a surface into the medium from which it came.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 864+, for foreign art collections involving a camera viewfinder having a reflector.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 838+ for a mirror, per se.
- 386 Plural:**
This subclass is indented under subclass 385. Subject matter having more than one reflector.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 865, for a foreign art collection involving a camera viewfinder having plural reflectors.
- 387 WITH FILM DRIVE:**
This subclass is indented under the class definition. Subject matter having camera structure and means to convert energy to produce or impart motion to a light-sensitive material.
- (1) Note. If no camera structure is claimed, then the drive means, per se, would be classified in the appropriate mechanical drive class. See SEARCH CLASS below for typical mechanical drive classes and search notes attached thereto for lines with other classes.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 817+, for foreign art collections involving a camera motor film drive.
FOR 852+, for foreign art collections involving camera film advance.
- SEE OR SEARCH CLASS:
226, Advancing Material of Indeterminate Length, appropriate subclasses for material advancement, per se, by acting on the material intermediate its length.
242, Winding, Tensioning, or Guiding, subclasses 324+ for unwinding and rewinding a machine convertible information carrier, per se.
- 388 Detachable drive unit:**
This subclass is indented under subclass 387. Subject matter wherein a device providing powered film movement is readily removable from or attachable to a camera body.
- 389 Double exposure prevention:**
This subclass is indented under subclass 387. Subject matter wherein the camera has some structure which inhibits two superimposed images.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
285, for double exposure warning.
FOR 847+, for foreign art collections involving camera double exposure prevention.
- 390 Midroll interrupt:**
This subclass is indented under subclass 389. Subject matter wherein the camera has structure enabling the removal of a roll of film prior to exposure of the entire roll and to return the roll of film at a later time for completion of the exposure of the roll of film.
- 391 Having manual override:**
This subclass is indented under subclass 389. Subject matter including means to permit the operator to manually manipulate a shutter actuating means so that the double exposure can be made.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 849, for a foreign art collection involving manual override of camera double exposure prevention.
- 392 Having film-sensing member:**
This subclass is indented under subclass 389. Subject matter including means for engaging a film to detect a state of film advancement and, responsive to the detection, either permitting or prohibiting exposure.
- 393 Having double cable release:**
This subclass is indented under subclass 389. Subject matter including two synchronously operated elongated actuators, one for the film drive and the other for a shutter release.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
504, for cable release, in general.
- 394 Responsive to film-winding lever:**
This subclass is indented under subclass 389. Subject matter in which a manually operated member for film transport cocks a shutter or releases a shutter lock.
- 395 Film movement limiting means:**
This subclass is indented under subclass 387. Subject matter including means to restrict film advancement to an increment corresponding to one film frame.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 846, for a foreign art collection involving interlocking film advance and shutter tension or setting including film movement limiting.
FOR 853, for a foreign art collection involving film advancing means having film movement limiting.
- 396 From film drive transmission member:**
This subclass is indented under subclass 395. Subject matter wherein a mechanical driving mechanism controls the amount of film advancement to the desired increment without sensing film movement.
- 397 From film itself:**
This subclass is indented under subclass 395. Subject matter including means to detect film movement and in response to the detection limiting advancement to the desired increment.
- 398 Having switch actuated by perforation sensing pawl:**
This subclass is indented under subclass 397. Subject matter wherein the means for detecting film movement is a member which rides on the film and in response to a film opening makes or breaks a circuit connection.
- 399 Having film locked by perforation sensing pawl:**
This subclass is indented under subclass 397. Subject matter wherein engagement of a member which rides on the film and in response to a film opening directly restrains further advancement of the film.
- 400 Having film transport mechanism locked by perforation sensing pawl:**
This subclass is indented under subclass 397. Subject matter wherein movement of a member which rides on the film and in response to a film opening shifts a member to prohibit further operation of the film drive means.
- 401 Film transport cocks shutter:**
This subclass is indented under subclass 387. Subject matter wherein a motive power for moving the film also charges a shutter mechanism.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
443, for camera element cocking or resetting in general.
FOR 844+, for foreign art collections involving interlocking film advance and shutter tension or setting.
- 402 Film transport cocks shutter and mirror:**
This subclass is indented under subclass 401. Subject matter wherein the motive power also charges a reflex mirror.
- 403 Having mechanically actuated circuit:**
This subclass is indented under subclass 387. Subject matter wherein a film drive circuit is triggered by the motion of a physical element.

- (1) Note. This would include, for example, a cam-actuated circuit.
- (2) Note. A significant electronic film drive circuit not mechanically actuated is classified in subclasses 406+.
- 404 Film feed error detection or end of film detection:**
This subclass is indented under subclass 403. Subject matter wherein a mechanically actuated circuit senses improper film movement or maximum film extension from its container.
- 405 Rewind:**
This subclass is indented under subclass 403. Subject matter wherein a mechanically actuated circuit reverses film movement at the completion of all desired exposures thereon.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
410, for a significant electronic rewind circuit.
413, for mechanical detail of a rewind mechanism.
FOR 854, for a foreign art collection involving film advance including rewind means.
- 406 Having significant electronic circuit detail:**
This subclass is indented under subclass 387. Subject matter having a particular electrical or electronic device for controlling film movement.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 821, for a foreign art collection involving automatic film advance having electronically timed electrical motor.
- 407 Prewind:**
This subclass is indented under subclass 406. Subject matter wherein the electrical or electronic device controls a mechanism to withdraw the entire length of film from the film container prior to a first exposure.
- 408 Initialization:**
This subclass is indented under subclass 406. Subject matter wherein the electronic circuit controls film movement prior to the first desired exposure.
- 409 Film feed error detection or end of film detection:**
This subclass is indented under subclass 406. Subject matter having electrical or electronic means to sense improper film movement or maximum film extension from its container.
- 410 Rewind:**
This subclass is indented under subclass 406. Subject matter having an electrical or electronic circuit which reverses film movement at the completion of all desired exposures thereon.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
405, for a mechanically actuated rewind circuit.
413, for mechanical details of a rewind mechanism.
FOR 854, for a foreign art collection involving film advance including rewind means.
- 411 Mechanical detail:**
This subclass is indented under subclass 387. Subject matter wherein the subject matter relates to miscellaneous mechanical structure or particular mechanical features of the film drive.
- 412 Spring motor:**
This subclass is indented under subclass 411. Subject matter including means to mechanically store energy.
- SEE OR SEARCH CLASS:
185, Motors: Spring, Weight, or Animal Powered, subclasses 37+ for a spring motor, per se.
- 413 Rewind:**
This subclass is indented under subclass 411. Subject matter comprising means to reverse film movement at the completion of all desired exposures thereon.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
405, for a mechanically actuated rewind circuit.
410, for a significant electronic rewind circuit.

- FOR 854, for a foreign art collection involving film advance including rewind means.
- SEE OR SEARCH CLASS:
352, Optics: Motion Pictures, subclass 124 for rewinding of film strip.
- 414 Posterior film roll:**
This subclass is indented under subclass 411. Subject matter having a photographic medium roll which lies behind the plane upon which an exposure is made.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
511+, for a removable film holder unit.
FOR 856, for a foreign art collection involving film advance including a posterior roll.
- 415 Having threading structure:**
This subclass is indented under subclass 411. Subject matter including means for the initial advancement of a film leader from a supply chamber to a take-up chamber.
- 416 Drive means having rectilinear path:**
This subclass is indented under subclass 411. Subject matter wherein a member supplying motive power to the film moves linearly while in engagement with the film.
- 417 Sheet film:**
This subclass is indented under subclass 411. Subject matter wherein transported film comprises an individual piece of rectangular or cut film.
- 418 Including electric motor:**
This subclass is indented under subclass 411. Subject matter also having means converting electrical energy to mechanical energy to provide motive power.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 820+, for foreign art collections involving automatic film advance having an electric motor.
- SEE OR SEARCH CLASS:
318, Electricity: Motive Power Systems, appropriate subclasses for electric motor.
- 419 CAMERA SUPPORT:**
This subclass is indented under the class definition. Subject matter including structure for maintaining a photographic camera in a fixed position or fixed path of movement with respect to some reference point.
- (1) Note. Camera structure combined with a camera support is classified here.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
12+, for an aerial camera support or holder.
329, for an adjustable stereoscopic camera support.
FOR 913+, for foreign art collections involving a camera mounting or rest.
- SEE OR SEARCH CLASS:
108, Horizontally Supported Planar Surfaces, appropriate subclasses for a horizontally supported planar surface.
206, Special Receptacle or Package, subclass 316.2 for a camera case.
224, Package and Article Carriers, appropriate subclasses, particularly subclass 185 for camera carriers that are attached to the operator's body or belt.
248, Supports, for supports of general utility, and especially subclasses 163.1+ for a plural leg support.
294, Handling: Hand and Hoist-Line Implements, subclass 139 for an optical instrument (e.g., camera) carrier gripped and carried by hand.
352, Optics: Motion Pictures, subclass 243 for a motion picture camera with support, and see (1) Note thereunder.
- 420 Operator supported:**
This subclass is indented under subclass 419. Subject matter wherein a camera operator assists in maintaining the photographic camera in fixed position.
- 421 Having stabilization:**
This subclass is indented under subclass 420. Subject matter wherein provision is made for damping out vibrations due to the movement of an operator.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 13, for aerial camera stabilizing.
 55, for systems which actually sense camera shake and provide subsequent stabilization.
- 422 Having means to attach other photographic accessories:**
 This subclass is indented under subclass 420. Subject matter which allows additional photographic accessories to be connected to the operator support.
- 423 Having strap:**
 This subclass is indented under subclass 420. Subject matter wherein a flat belt provides camera operator support structure.
- 424 Integral with camera body:**
 This subclass is indented under subclass 420. Subject matter wherein an interface structure between the operator and the camera is a constituent part of a camera housing.
- 425 Having release actuator on support:**
 This subclass is indented under subclass 420. Subject matter wherein a shutter release is located on the support itself.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 502+, for mechanical camera shutter release means, per se.
- 426 Having actual or simulated handheld weapon structure:**
 This subclass is indented under subclass 425. Subject matter including an individually carryable implement of hunting or war or simulated version thereof.
- SEE OR SEARCH CLASS:
 42, Firearms, appropriate subclasses for a firearm, per se, such as a rifle.
 124, Mechanical Guns and Projectors, appropriate subclasses for a mechanical projector, per se, such as a cross-bow.
- 427 Surveillance type:**
 This subclass is indented under subclass 419. Subject matter wherein a camera mount is particularly adapted to permit surreptitious photographic monitoring of an area usually for security purposes.
- 428 Adjustable support:**
 This subclass is indented under subclass 419. Subject matter wherein the support may be selectively fixed in any one of a plurality of positions.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 329, for an adjustable stereoscopic camera support.
- 429 CAMERA COMBINED WITH OR CONVERTIBLE TO DIVERSE ART DEVICE:**
 This subclass is indented under the class definition. Subject matter wherein a camera is combined with means recognized as the subject matter of some other class, or selectively performs two dissimilar functions by appropriate rearrangement of parts or use of special adaptor structure.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 544+, for a camera attachment, per se.
- SEE OR SEARCH CLASS:
 352, Optics: Motion Pictures, subclass 137 for conversion from a still to motion picture camera.
- 430 Convertible to developed image projector or viewer:**
 This subclass is indented under subclass 429. Subject matter wherein a camera is convertible to a device which projects or allows observation of a visible image.
- SEE OR SEARCH CLASS:
 353, Image Projectors, for an image projector, in general.
- 431 With light beam projector for delineating field of view:**
 This subclass is indented under subclass 429. Subject matter wherein a camera is combined with a light source which marks object bound-

aries which will appear in a photographic frame.

SEE OR SEARCH CLASS:

362, Illumination, appropriate subclasses for illumination devices, per se.

432 With diverse compound lens system (e.g., microscope):

This subclass is indented under subclass 429. Subject matter wherein a camera is combined with a separate plurality of lenses or lens groups arranged in series coaxially along an optical axis so that light rays passing from an object external to the plurality of lenses form an image of that object, which is subsequently viewed and which plurality of lenses or lens groups is recognized as subject matter of another class.

SEE OR SEARCH CLASS:

359, Optics: Systems (Including Communication) and Elements, subclass 363 for a compound lens system which may have a broadly recited photographic image recorder where the primary purpose of the system is that of viewing.

433 With camouflage structure (e.g., spy camera):

This subclass is indented under subclass 429. Subject matter wherein a camera is combined with structure intended to hide the presence of such camera from an outside observer.

SEE OR SEARCH THIS CLASS, SUBCLASS:

427, for a surveillance-type camera support.

SEE OR SEARCH CLASS:

89, Ordnance, subclass 36.01 for ordnance shrouds or cloaks.

428, Stock Material or Miscellaneous Articles, subclass 919 for a Cross-reference Art Collection related to camouflaged articles.

434 With radio or clock:

This subclass is indented under subclass 429. Subject matter wherein a camera is combined with either a wireless audio receiver or time-keeping device.

SEE OR SEARCH CLASS:

368, Horology, subclasses 10+ for a detailed horological device combined with disparate device.

455, Telecommunications, subclasses 344+ for a detailed telecommunications receiver combined with diverse art device.

435 VARIABLE FRAME MASKING:

This subclass is indented under the class definition. Subject matter having means to change the physical dimensions of the exposed area of a frame utilizing an opaque element.

SEE OR SEARCH THIS CLASS, SUBCLASS:

337, for plural image recording which includes a preobjective mask.

FOR 806, for a foreign art collection involving camera with picture size variable.

SEE OR SEARCH CLASS:

352, Optics: Motion Pictures, subclasses 79+ for plural picture size pictures.

436 Having wide aspect ratio:

This subclass is indented under subclass 435. Subject matter wherein longitudinal strips at the top and bottom of a frame are simultaneously blocked off by an opaque element.

SEE OR SEARCH THIS CLASS, SUBCLASS:

20+, for a scanning camera.

437 CAMERA BACK OR FILM CARRIER ANGULARLY ADJUSTABLE:

This subclass is indented under the class definition. Subject matter having means to cover the rear of a camera or means to support a photographic medium wherein either is shiftable with respect to an objective so that the vertical plane of the objective is not parallel to a plane of the means to cover the rear of a camera or of the means to support a photographic medium.

SEE OR SEARCH THIS CLASS, SUBCLASS:

342, for a bellows objective camera having a front or lens mount which is angularly adjustable.

- FOR 807, for a foreign art collection involving a camera having camera back or film carrier angularly adjustable.
- 438 DAGUERREOTYPE:**
This subclass is indented under the class definition. Subject matter relating to that branch of photography known as "daguerreotypy" in which sensitization and development are secured by the use of mercury vapor to produce a positive image on a silver coated copper plate.
- (1) Note. Included here also is a plate vise or holder, per se, which is adapted for daguerreotype use.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
579, for gaseous treating photographic apparatus, in general.
654, for photographic plate holders, in general.
658+, for burnishing, in general.
- 439 CAMERA DETAIL:**
This subclass is indented under the class definition. Subject matter which defines miscellaneous structure or particular details of a camera.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 842+, for foreign art collections involving camera details.
- SEE OR SEARCH CLASS:
399, Electrophotography, subclass 207 for diaphragm, shutter, or shading board in an electrophotography device.
- 440 Film restraining means or pressure plate:**
This subclass is indented under subclass 439. Subject matter having means to press or hold a film in a plane.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 843, for a foreign art collection involving film restraining means.
- 441 Pneumatic or magnetic:**
This subclass is indented under subclass 440. Subject matter in which a force to press or hold the film is generated by a pressure differential created by a gas medium or by a magnet.
- 442 On camera door:**
This subclass is indented under subclass 440. Subject matter in which the means to press or hold the film is located on a closure member.
- 443 Camera element cocking or resetting:**
This subclass is indented under subclass 439. Subject matter having means to move camera components to a ready position in preparation for taking a picture.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
401+, for film transport that cocks shutter.
FOR 891, for a foreign art collection involving a pivoting or rotating blade shutter and cocking means.
- 444 Shutter charging lever on lens housing:**
This subclass is indented under subclass 443. Subject matter wherein an elongated member for cocking a shutter is on the body structure surrounding the optical elements.
- 445 Film cutoff:**
This subclass is indented under subclass 439. Subject matter having means for cutting a portion of a light-sensitive material from a strip.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
613, for photographic cutting in a fluid treating apparatus.
FOR 851, for a foreign art collection involving film cut-off.
- SEE OR SEARCH CLASS:
242, Winding and Reeling, subclasses 522+ for convolute winding with cutting.
355, Photocopying, subclass 29 for means to cut film in projection printing.
- 446 Plural film types:**
This subclass is indented under subclass 439. Subject matter wherein the camera structure provides for an alternative use of more than

one type of supply or size of light sensitive material for recording.

- (1) Note. Excluded herein are mere plate holders having provision for accepting plates of diverse sizes (i.e., plate holder kit).

SEE OR SEARCH THIS CLASS, SUB-CLASS:

309, for plural film in a camera used for color photography which utilizes monochrome film.

322+, for plural image recording.

519+, for plate or cut film holder kit.

FOR 850, for a foreign art collection involving a plural film-type camera.

SEE OR SEARCH CLASS:

352, Optics: Motion Pictures, subclasses 79+ for motion pictures with plural picture sizes or types.

447 Reflex mirror:

This subclass is indented under subclass 439. Subject matter comprising means for selectively reflecting light from an optical path of the camera lens to a viewfinder to enable through the lens viewing of the object.

- (1) Note. Included here are submirrors which operate in conjunction with the reflex mirror.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

353, for twin lens reflex camera.

354+, for single lens reflex camera.

SEE OR SEARCH CLASS:

359, Optics: Systems (Including Communication) and Elements, subclasses 838+ for mirrors, per se.

448 Lens cover:

This subclass is indented under subclass 439. Subject matter comprising integral camera structure for protecting the object side of a lens.

449 Diaphragm shutter unit:

This subclass is indented under subclass 439. Subject matter comprising a single means to interrupt and control light passing through the lens to a light sensitive material.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

471, for plural shutters.

FOR 870, for a foreign art collection involving a shutter and diaphragm formed from the same pivoted or sliding plates.

450 Sliding plate:

This subclass is indented under subclass 449. Subject matter wherein the light interrupter means is a stiff sheet which travels in a linear path.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

483+, for sliding plate-type shutter.

451 Between the lens components:

This subclass is indented under subclass 449. Subject matter wherein the light interrupter is placed between the front and rear lens components of an objective.

452 Shutter:

This subclass is indented under subclass 439. Subject matter comprising means to interrupt the light passing through the lens to a light sensitive material.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

180+, for shutters synchronized with illumination means.

246+, for exposure control circuit controlling shutter speed function only.

FOR 866+, for foreign art collections involving details of a camera shutter.

SEE OR SEARCH CLASS:

352, Optics: Motion Pictures, appropriate subclasses, especially subclasses 204+ for shutters utilized in motion picture apparatus.

355, Photocopying, subclass 121 for shutter utilized in photocopying, and see search notes for other search areas in Class 355.

- 359, Optics: Systems (Including Communication) and Elements, subclasses 227+ for movable opaque light control element, per se; subclasses 237+ for optical modulator (including electro-optical), and subclasses 738+ for lens having light limiting or controlling means, and see notes attached thereto for the line with Class 396.
- 453 Having braking or damping:**
This subclass is indented under subclass 452. Subject matter comprising means to slow the speed of the light interrupting member.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
235, for exposure control circuit with velocity control of shutter or diaphragm component.
FOR 892, for a foreign art collection involving camera shutter having pivoting or rotating blade and brake means.
- 454 Having braking or damping member in path of shutter:**
This subclass is indented under subclass 453. Subject matter wherein the means to slow the speed intersects a path of travel of the light interrupting member so that there is contact between the light interrupting member and the means to slow a speed.
- 455 Having pneumatic or electromagnetic braking or damping:**
This subclass is indented under subclass 453. Subject matter wherein a force to slow the speed is generated by a pressure differential created by a gas medium or by a soft-iron device wound with a current carrying coil of insulated wire.
- 456 Of focal plane shutter:**
This subclass is indented under subclass 453. Subject matter wherein the light interrupting member is at an image plane of the lens.
- 457 Electro-optical, magneto-optical, or photochromic type:**
This subclass is indented under subclass 452. Subject matter having an optical medium whose light transmission characteristics can be changed by an application of an electric or magnetic field or light.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
249, for exposure control circuit for electro-optical shutter.
506, for diaphragm of electro-optical, magneto-optical or photochromic type.
FOR 867, for a foreign art collection involving an electro-optical shutter.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 237+ for light intensity modulation.
- 458 Including diaphragm:**
This subclass is indented under subclass 452. Subject matter including means to selectively vary the amount of light passing through the lens from the given object to a light sensitive material.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
505+, for a diaphragm, per se.
FOR 868+, for foreign art collections involving a shutter and diaphragm.
- 459 Plural selectable apertures:**
This subclass is indented under subclass 458. Subject matter including multiple different sized openings which may be chosen to control the light.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 869, for a foreign art collection involving a shutter having a plural apertured diaphragm.
- 460 Including coupled shutter and diaphragm:**
This subclass is indented under subclass 458. Subject matter having means to connect the shutter and diaphragm so that a means to adjust one will also adjust the other.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 871, for a foreign art collection involving a shutter having a coupled diaphragm.

- 461 Diaphragm blades open for focusing or viewing:**
This subclass is indented under subclass 458. Subject matter having means for moving blades of a diaphragm to allow the maximum amount of light to pass through for focusing or viewing or means to hold blades of a diaphragm fully open until the shutter release is actuated.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
509, for a diaphragm, per se, which opens for focusing or viewing.
FOR 872, for a foreign art collection involving a shutter and diaphragm which opens for focusing or viewing.
- 462 Having shutter between lens components:**
This subclass is indented under subclass 452. Subject matter wherein the shutter is placed between front and rear components of a lens.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 873, for a foreign art collection involving a shutter located between lens.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 642+ for a lens, per se.
- 463 Dynamo-electric actuator:**
This subclass is indented under subclass 452. Subject matter having means to convert electrical energy to mechanical energy by means of an electromagnet to cause the shutter to actuate.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
183, for illumination means combined with a shutter actuated by a relay or solenoid.
508, for dynamo-electric actuator of diaphragm.
FOR 874+, for foreign art collections involving a dynamo-electric actuated shutter.
- SEE OR SEARCH CLASS:
361, Electricity: Electrical Systems and Devices, subclasses 160+ for control circuits of relays or solenoids.
- 464 Having planar coil:**
This subclass is indented under subclass 463. Subject matter wherein the windings of the electromagnet lie in a single plane.
- 465 Latching relay:**
This subclass is indented under subclass 463. Subject matter wherein the armature of the electromagnet engages a drive element of the light-intercepting member to hold the drive element in a fixed position.
- 466 Plural latching relays:**
This subclass is indented under subclass 465. Subject matter including more than one armatured electromagnet.
- 467 Plural linear solenoids:**
This subclass is indented under subclass 463. Subject matter having more than one dynamoelectric means which are constrained to move in a straight line.
- SEE OR SEARCH CLASS:
361, Electricity: Electrical Systems and Devices, subclasses 166+ for a plural solenoid control circuit.
- 468 Single linear solenoid:**
This subclass is indented under subclass 463. Subject matter having only one dynamoelectric means which is constrained to move in a straight line.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 875, for a foreign art collection involving a shutter actuated by a single linear solenoid.
- SEE OR SEARCH CLASS:
361, Electricity: Electrical Systems and Devices, subclasses 160+ for a solenoid control circuit.

- 469 Plural dynamo-electric actuators:**
This subclass is indented under subclass 463. Subject matter having more than one means to convert electrical energy to mechanical energy by means of an electromagnet to cause the shutter to actuate.
- 470 Having spring return:**
This subclass is indented under subclass 463. Subject matter wherein the means to provide the motive force for restoring the light-intercepting member to an initial position is a resilient member.
- 471 Plural shutters:**
This subclass is indented under subclass 452. Subject matter having more than one means to interrupt the light.
- (1) Note. The means to interrupt the light are not plural blades for a single opening but means to interrupt the light in more than one plane.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
449, for diaphragm shutter.
FOR 876, for a foreign art collection involving plural shutters.
- 472 Having mechanical delayed release means (e.g. self-timer):**
This subclass is indented under subclass 452. Subject matter including means to mechanically defer for a time the initial actuation of the shutter.
- (1) Note. An operator actuates the delay means and then may enter the picture before the shutter is actuated.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
59, for camera release by wireless remote control circuit.
191, for means to delay movement of a shutter with respect to actuation of an illumination source.
264, for self-timing release control circuit.
475+, for mechanically delayed closing of shutter.
502, for mechanical shutter release or actuator means.
- FOR 877+, for foreign art collections involving a shutter having delayed release means.
- SEE OR SEARCH CLASS:
74, Machine Element or Mechanism, subclasses 3.5+ for a retarded latch trip.
267, Spring Devices, subclass 71 for a retarded compression spring and subclass 74 for a retarded tension spring.
- 473 Having gear train:**
This subclass is indented under subclass 472. Subject matter wherein the means to delay the shutter release includes plural gearing.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 879+, for foreign art collections involving a shutter having clock-train delayed release means.
- 474 Detachable from camera:**
This subclass is indented under subclass 473. Subject matter having means to remove the delay means from the camera.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 880, for a foreign art collection involving a shutter having clock-train delayed release means which is detachable from camera.
- 475 Having mechanically delayed closing:**
This subclass is indented under subclass 452. Subject matter having means to mechanically hold the shutter fully open for a certain period of time.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
472, for mechanically delayed release.
FOR 896+, for foreign art collections involving a shutter having pivoting or rotating blade with retard means.
FOR 907, for a foreign art collection involving a shutter release and timing means.
- SEE OR SEARCH CLASS:
73, Measuring and Testing, subclasses 1.42+ for timing apparatus for a camera shutter.

- 476 Including pneumatic means:**
This subclass is indented under subclass 475. Subject matter wherein the means to hold the shutter open is a member utilizing gaseous pressure differentials.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 897, for a foreign art collection involving a pivoting or rotating blade shutter having pneumatic retard means.
- 477 Including gear means:**
This subclass is indented under subclass 475. Subject matter wherein the means to hold the shutter open is provided by a member with one or more protuberances or grooves which interengage and cooperate with mating protuberances on, or grooves in, another member to form therewith a positive force means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 899, for a foreign art collection involving a pivoting or rotating blade shutter having a gear retard means.
- 478 Including cam means:**
This subclass is indented under subclass 475. Subject matter wherein the means to hold the shutter open is provided with a surface of fixed points of varying distance from a fixed point which surface is in contact with a follower to vary the time the shutter remains open.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 900, for a foreign art collection involving a pivoting or rotating blade shutter having a cam retard means.
- 479 Curtain type:**
This subclass is indented under subclass 452. Subject matter wherein the light interrupter means is a resilient or flexible sheet.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
194, for curtain shutter and illumination means.
FOR 881+, for foreign art collections involving a curtain or flexible plate-type shutter.
- 480 Plural curtains:**
This subclass is indented under subclass 479. Subject matter having more than one resilient or flexible sheet to form an opening which passes across the light sensitive material to produce an exposure.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 882+, for foreign art collections involving a shutter having plural curtains or plates.
- 481 Curtain width opening adjustable:**
This subclass is indented under subclass 480. Subject matter including means to adjust or control an extent of the opening to produce the exposure.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 883, for a foreign art collection involving a curtain shutter having variable curtain width opening.
- 482 Three or more rollers:**
This subclass is indented under subclass 481. Subject matter including three or more supply and takeup spools for storing the curtains or flexible plates.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 884, for a foreign art collection involving a curtain shutter having variable curtain width opening and three or more rollers.
- 483 Sliding plate type:**
This subclass is indented under subclass 452. Subject matter wherein the light interrupter means is a stiff sheet which travels in a linear path.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 885+, for foreign art collections involving a shutter formed by a sliding rigid plate.

- 484 Plural plates:**
This subclass is indented under subclass 483. Subject matter having more than one stiff sheet.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 886+, for foreign art collections involving a shutter formed by plural sliding rigid plates.
- 485 Having apertured plate:**
This subclass is indented under subclass 484. Subject matter including light passing openings in the stiff sheets.
- 486 Having base plate detail:**
This subclass is indented under subclass 484. Subject matter including specific structure of the mounting member which supports the shutter components.
- 487 Having plate support detail:**
This subclass is indented under subclass 484. Subject matter including specific structure of an elongated linkage means determining the path of travel of the stiff sheets.
- 488 Having plate detail:**
This subclass is indented under subclass 484. Subject matter including specific structure of the stiff sheets.
- 489 Having drive detail:**
This subclass is indented under subclass 484. Subject matter including specific structure of the means to provide motive force to the stiff sheets.
- 490 Move in opposite directions:**
This subclass is indented under subclass 484. Subject matter wherein one of the stiff sheets slides in a reverse direction with respect to the other sheet.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 887, for a foreign art collection involving a shutter formed by plural sliding rigid plates which move in opposite directions.
- 491 Rectilinear reciprocation:**
This subclass is indented under subclass 483. Subject matter wherein a rigid plate is moved in alternate directions in a straight line.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 888+, for foreign art collections involving a sliding rigid plate shutter having rectilinear reciprocation.
- 492 Vertical motion:**
This subclass is indented under subclass 491. Subject matter wherein the rigid plate is moved in a straight line so as to form a right angle with the plane of the horizon.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 889, for a foreign art collection involving a sliding rigid plate shutter having rectilinear reciprocation with vertical motion.
- 493 Pivoting or rotating blade type:**
This subclass is indented under subclass 452. Subject matter wherein the shutter includes means which is mounted for movement in one direction only or is rotatably reciprocated about a fixed axis.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 890+, for foreign art collections involving a shutter having pivoting or rotating blade.
- 494 Having auxiliary light blocking:**
This subclass is indented under subclass 493. Subject matter comprising two or more blades to stop light from entering a camera.
- (1) Note. One blade allows light to enter an aperture when actuated, while the other blade will block the light so that the blade allowing light can return to its original position without allowing light to enter the aperture.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 893, for a foreign art collection involving a shutter having pivoting or rotating blade and aperture cover or lid.
- 495 Shutter blade moves continuously from closed to open to closed position:**
This subclass is indented under subclass 493. Subject matter comprising means for moving a blade with a first aperture in it past a second aperture so that the first aperture moves on past the second aperture to close it from light.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 894+, for foreign art collections involving a shutter having pivoting or rotating blade which moves continuously from closed to open to closed position.
- 496 Blade moves in opposite directions on alternate exposures:**
This subclass is indented under subclass 495. Subject matter wherein the blade with the aperture moves first in one way past the second aperture and then moves back past the second aperture when another picture is taken.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 895, for a foreign art collection involving a shutter having pivoting or rotating blade which moves continuously from closed to open to closed position in opposite directions on alternate exposures.
- 497 Plural oscillating blades:**
This subclass is indented under subclass 493. Subject matter wherein there are two or more blades that are rotatably reciprocated about a fixed axis from an open to a closed position.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 901, for a foreign art collection involving a shutter having plural oscillating blades.
- 498 Having gear means:**
This subclass is indented under subclass 497. Subject matter wherein the means to drive the shutter blades is a toothed wheel which engages one or more similar wheels.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 902, for a foreign art collection involving a shutter having plural oscillating blades including gear means.
- 499 Having pneumatic actuator:**
This subclass is indented under subclass 497. Subject matter wherein the blades are moved by gas pressure means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
184, for illumination means combined with pneumatic shutter actuating means.
FOR 903, for a foreign art collection involving a shutter having plural oscillating blades and a pneumatic actuator.
- 500 Symmetrical opening:**
This subclass is indented under subclass 497. Subject matter wherein the blades move in diverse directions from or toward a center and form an aperture which always varies the same from the center.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 904, for a foreign art collection involving a shutter having plural oscillating blades forming a symmetrical opening.
- 501 Opposite movement:**
This subclass is indented under subclass 497. Subject matter wherein one blade moves in one direction while another blade moves in another direction.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 905, for a foreign art collection involving a shutter having plural oscillating blades of opposite movement.

502 Release or actuator means:

This subclass is indented under subclass 452. Subject matter comprising means to allow a shutter to operate or means to apply a bias or mechanical advantage to effect movement of a shutter.

SEE OR SEARCH THIS CLASS, SUBCLASS:

59, for camera release by wireless remote control.
263+, for camera release control circuit.
472+, for mechanically delayed release.
FOR 906+, for foreign art collections involving a shutter release or actuator.

SEE OR SEARCH CLASS:

352, Optics: Motion Pictures, subclass 178 for manual control of a motion picture camera.

503 Having safety lock:

This subclass is indented under subclass 502. Subject matter comprising means to prevent the shutter actuator from being accidentally actuated.

SEE OR SEARCH THIS CLASS, SUBCLASS:

266, for a safety lock in a camera release control circuit.
FOR 908, for a foreign art collection involving a shutter having release or actuator and safety lock.

504 Cable release:

This subclass is indented under subclass 502. Subject matter comprising a flexible element for transmission of tension or compression.

SEE OR SEARCH THIS CLASS, SUBCLASS:

393, for a double cable release in film drive double exposure prevention.
FOR 909, for a foreign art collection involving a shutter cable release or actuator.

SEE OR SEARCH CLASS:

74, Machine Element or Mechanism, subclasses 500.5+ for flexible transmitter.

352, Optics: Motion Pictures, subclass 179 for remotely operated motion picture cameras.

505 Diaphragm:

This subclass is indented under subclass 439. Subject matter having means to selectively vary the amount of light passing through the lens from the given object to a light-sensitive material.

SEE OR SEARCH THIS CLASS, SUBCLASS:

257+, for exposure control circuit controlling diaphragm function only.
449+, for diaphragm shutter.
458, for a shutter with diaphragm.

SEE OR SEARCH CLASS:

359, Optics: Systems (Including Communication) and Elements, subclasses 237+ for optical modulator (including electro-optical), and subclasses 738+ for lens having light-limiting means, and see notes attached thereto for the line with Class 396.

506 Electro-optical, magneto-optical, or photochromic type:

This subclass is indented under subclass 505. Subject matter having optical media whose light transmission characteristics can be changed by an application of an electric or magnetic field or of light.

SEE OR SEARCH THIS CLASS, SUBCLASS:

262, for exposure control circuit for electro-optical diaphragm.
457, for shutter of electro-optical, magneto-optical, or photochromic type.

SEE OR SEARCH CLASS:

359, Optics: Systems (Including Communication) and Elements, subclasses 237+ for light-intensity modulation.

507 Including irregular diaphragm opening:

This subclass is indented under subclass 505. Subject matter having a nonsymmetrical aperture.

- 508 Dynamo-electric actuator:**
This subclass is indented under subclass 505. Subject matter having means to convert electrical energy to mechanical energy by means of an electromagnet to cause the diaphragm to actuate.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
463+, for dynamo-electric actuator of shutter.
- SEE OR SEARCH CLASS:
361, Electricity: Electrical Systems and Devices, subclasses 160+ for control circuits of relays or solenoids.
- 509 Diaphragm opens for focusing or viewing:**
This subclass is indented under subclass 505. Subject matter comprising means for manual adjustment of a diaphragm aperture setting means so that the aperture remains fully open until a setting means is released or the diaphragm aperture is set or a device is pressed to fully open the aperture and returns to set position after release of a pressed device.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
461, for a shutter with diaphragm that opens for focusing or viewing.
- 510 Plural pivoted blades:**
This subclass is indented under subclass 505. Subject matter comprising more than one blade and means to restrain a motion of the blade to an arcuate path.
- 511 Detachable or removable film holder unit:**
This subclass is indented under subclass 439. Subject matter comprising means to support a supply of light-sensitive material, and the support is extractable from a camera housing so that light-sensitive material can be put on the support and replaced in the camera housing so a picture can be recorded or the support may contain the light-sensitive material for placement into a camera housing.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
414, for removable film holder unit and posterior roll with camera film drive.
- SEE OR SEARCH CLASS:
242, Winding and Tensioning, or Guiding, subclasses 348+, 538.4, 588.5, and 588.6 for a holder of coiled material which includes image film.
- 512 Film cassette or cartridge:**
This subclass is indented under subclass 511. Subject matter having the light-tight enclosure containing a supply spool such that the entire enclosure including the spool is removable and insertable as a unit.
- 513 Light seal:**
This subclass is indented under subclass 512. Subject matter having means to prevent light from entering a film exit opening of the light-tight enclosure.
- 514 Film or spool locking means:**
This subclass is indented under subclass 512. Subject matter having means for preventing rotation of the film or spool except when the light-tight enclosure is in an operative position in the camera.
- 515 Including film use indicator:**
This subclass is indented under subclass 512. Subject matter having means integral with the light-tight enclosure providing a demonstration of an exposure status of the film.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
281, for camera indicator.
- 516 Thrust type:**
This subclass is indented under subclass 512. Subject matter wherein the light-tight enclosure contains a single spool having the film wound completely thereon and means are provided for ejecting the film leader from the light-tight enclosure.
- 517 Plate or cut film holder:**
This subclass is indented under subclass 511. Subject matter wherein the support means holds a sheet of light-sensitive material during its exposure in the camera, and the holder must be removed from the camera after each exposure to place the next sheet of film in position for exposure or protects the material while it is being transported.

- (1) Note. Devices which are not merely double plateholders, but by means of which separate light-sensitized surfaces or separate portions of the same light-sensitive material are simultaneously exposed in a stereoscopic camera, are classified in this class, subclasses 324+. Where these separate surfaces or portions are successively brought into the same position relative to a lens for exposure, even when they are not separable from the camera, they are classified according to the means used in subclasses 333+, 335+, 360+, and 414.
- (2) Note. Ground glass screens combined with plateholders and camera guides are found in this class, subclasses 150+.
- (3) Note. Magazines in which two or more light-sensitive surfaces not in the same plane are brought to an exposure position one at a time without opening the receiver to the light are classified in this class, subclasses 360+.

SEE OR SEARCH CLASS:

- 235, Registers, subclasses 91+ for devices which register the number of times the plateholder has been opened to indicate the number of prints taken.
- 378, X-Ray or Gamma Ray Systems or Devices, subclasses 167+ for photographic detector supports including film and plate moving and positioning means.
- 430, Radiation Imagery Chemistry: Process, Composition, or Product Thereof, appropriate subclasses for a holder in combination with chemically defined radiation-sensitive film or plates.

518 Light seal:

This subclass is indented under subclass 517. Subject matter wherein the support means includes one or more movable means to prevent the admission of light to the plateholder through openings therein, except such slides or doors that close front or rear openings used to admit the plate or to expose it when in place.

519 Plate fastening or kit:

This subclass is indented under subclass 517. Subject matter which has particular corner-pieces, catches, or other devices which support or retain a light sensitive material within a plateholder or which provides an adapter structure (i.e., kit) to permit one size of light-sensitive material to be inserted in a plateholder normally supporting light sensitive material of a different size.

- (1) Note. Adaptations of kits to special types of magazine cameras are classified with camera structure. Thus, extended bases upon kits occur in this class, subclass 371.

SEE OR SEARCH THIS CLASS, SUBCLASS:

446, for camera using plural film types.

520 Adjustable:

This subclass is indented under subclass 519. Subject matter wherein the retaining parts are adaptable to fit surfaces of different sizes.

521 Solution drain or resistant:

This subclass is indented under subclass 517. Subject matter wherein the support means permits collection of a liquid from wet plates or prevents or withstands the injurious effects of such liquid.

522 Closure lock or check:

This subclass is indented under subclass 517. Subject matter including means to retain the slide, door, or other plateholder closure or prevent reexposure of the light-sensitive material.

523 Auxiliary:

This subclass is indented under subclass 517. Subject matter wherein the support means are for the purpose of supplying plates or light-sensitive material to and removing the same from "principal" plateholders in daylight and either do not themselves hold the plate or light-sensitive material during exposure or have independent front closures and are otherwise light-excluding.

- (1) Note. When these auxiliary holders contain more than one plate and are capable of successively supplying these plates to

exposure positions, the holders become magazines and are classified in this class, subclasses 360+, if claimed alone or with a detailed camera, unless the device is a mere double plateholder.

524 Having dark slide:

This subclass is indented under subclass 517. Subject matter wherein a removable or displaceable sliding member, located parallel and adjacent to the image-receiving plate or sheet, protects the light-sensitive material from outside light before and after exposure and is removed or displaced while in exposing position to uncover the image receiving surface to permit exposure.

525 Having hinged part:

This subclass is indented under subclass 524. Subject matter wherein a cover or other member (other than the light seal protecting the dark slide entrance) is mounted by means of hinges or the equivalent relative to the portion of the support means supporting the plate.

526 Double holder:

This subclass is indented under subclass 524. Subject matter wherein two plates, sheets or light sensitive materials are supported so as to be parallel but facing in opposite directions.

527 Self-developing:

This subclass is indented under subclass 517. Subject matter wherein each sheet of light-sensitive material carries the chemicals necessary for processing.

SEE OR SEARCH THIS CLASS, SUBCLASS:

30+, for a complete self-developing camera.

528 Flexible holder:

This subclass is indented under subclass 517. Subject matter wherein the means for containing the light sensitive material is made of a nonrigid material.

529 Lens mount:

This subclass is indented under subclass 439. Subject matter including structure engaging the rim portion around substantially the entire circumference or rim of the objective or its com-

ponents to secure the objective to the camera supporting structure.

SEE OR SEARCH CLASS:

352, Optics: Motion Pictures, appropriate subclasses for lens supports together with motion picture structure.

359, Optics: Systems (Including Communication) and Elements, subclasses 819+ for lens mounts, per se, and the mere recitation of a camera wall or mounting plate or focal plane is not sufficient to remove the lens mounting structures therefrom. Also see (2) Note of subclass 819.

530 Lens adapter:

This subclass is indented under subclass 529. Subject matter including means for connecting a lens having one type of engaging structure with a camera having a different type of engaging structure.

SEE OR SEARCH THIS CLASS, SUBCLASS:

71, for supplemental optical device that attaches to the objective and which modifies focal length or which permits closeup photography.

531 Bayonet mount:

This subclass is indented under subclass 529. Subject matter wherein the engaging structure comprises a rotatable pin and slot mechanism on the lens and camera body.

532 Having electrical contact detail:

This subclass is indented under subclass 531. Subject matter including specific structure of the means for transmitting electrical power or signals from the lens to the camera body.

533 Threaded mount:

This subclass is indented under subclass 529. Subject matter wherein the engaging structure comprises mutually engaging helical grooves on the lens and camera body.

534 Hood:

This subclass is indented under subclass 439. Subject matter having means for reducing light upon or excluding light from a focusing surface in order that an image formed upon it may be clearly seen (e.g., curtains, shade, cover, etc).

- 535 Body structure or housing:**
This subclass is indented under subclass 439. Subject matter having structure for receiving light sensitive material for cooperating with significant camera mechanism or for substantially encasing or enclosing camera mechanism.
- SEE OR SEARCH CLASS:
138, Pipes and Tubular Conduits, subclass 121 for flexible corrugated bellows, per se.
312, Supports: Cabinet Structure, subclass 10.1 for cabinet structure for projector.
352, Optics: Motion Pictures, subclass 242 for motion picture projector housings.
353, Optics: Image Projectors, subclass 119 for image projector housings.
- 536 Rear door or latch detail:**
This subclass is indented under subclass 535. Subject matter including specific structure of a rear closure member or the mechanism for holding the rear closure member in closed position.
- 537 Having viewing port:**
This subclass is indented under subclass 536. Subject matter including a transparent window for observing selected conditions interiorly of a camera housing.
- 538 Film chamber detail:**
This subclass is indented under subclass 535. Subject matter including specific structure of a compartment holding the light-sensitive material.
- 539 Battery compartment:**
This subclass is indented under subclass 535. Subject matter wherein the body has structure particularly adapted for receiving a battery therein.
- 540 Ergonomic design:**
This subclass is indented under subclass 535. Subject matter wherein the structure has a particular shape intended to enhance a comfort of an operator during use of the device.
- 541 Modular body:**
This subclass is indented under subclass 535. Subject matter wherein the camera body is comprised of individual component parts which may be selectively assembled in a desired configuration.
- 542 Having printed circuit detail:**
Subject matter under 439 including details of a physical circuit layout or a printed circuit arrangement.
- 543 With mechanical switch detail:**
This subclass is indented under subclass 439. Subject matter including mechanical details of a photographic switch.
- SEE OR SEARCH CLASS:
200, Electricity: Circuit Makers and Breakers, appropriate subclasses for electrical switches, per se.
- 544 CAMERA ATTACHMENT:**
This subclass is indented under the class definition. Subject matter comprising accessory means which may be attached to a camera to facilitate taking a photograph.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
71, for camera lens converter.
429+, for a complete camera combined with diverse art device.
- SEE OR SEARCH CLASS:
359, Optics: Systems (Including Communication) and Elements, subclasses 885+ for absorption filters, per se.
- 545 Vignetter:**
This subclass is indented under subclass 544. Subject matter having means for partially masking a portion of the transverse area of a light path to produce a graduated shading effect.
- SEE OR SEARCH CLASS:
355, Photocopying, subclasses 125+ for a diffusing or masking device used in contact printing.

- 359, Optics: Systems (Including Communication) and Elements, subclass 599 for miscellaneous optical diffusing systems or elements.
- 546 EXPOSING MULTICOLOR CATHODE-RAY TUBE TARGETS:**
This subclass is indented under the class definition. Subject matter including means to record an image on a photosensitive surface, and which recorded image upon development is to be used as a multicolor luminescent target of a cathode-ray tube.
- SEE OR SEARCH CLASS:
430, Radiation Image Chemistry-Process, Composition or Product, subclasses 23+ for radiation image chemistry involved in making a CRT element.
445, Electric Lamp or Space Discharge Component or Device Manufacturing, appropriate subclasses for generic CRT manufacturing process and apparatus.
- 547 Having light source or optical element which moves during exposure:**
This subclass is indented under subclass 546. Subject matter wherein an illuminating source or light path modifying element is in motion during the exposure of multicolor cathode-ray tube targets.
- (1) Note. A moving light source may comprise a scanned light beam.
- 548 LINE GENERATION:**
This subclass is indented under the class definition. Subject matter having means to generate a line by exposing a photosensitive surface to a light beam moving over the surface.
- (1) Note. The line may be part of a pattern or design to be drawn.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
549+, for composing by selecting characters.
- SEE OR SEARCH CLASS:
346, Recorders, subclasses 107.1+ for a photographic-ray type recorder.
- 549 PHOTOTYPE COMPOSING:**
This subclass is indented under the class definition. Subject matter including means for selecting, in a desired order or sequence, characters to be reproduced and reproducing an image of the characters in the desired arrangement on a photographic medium.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
5, for object support in a studio.
548, for composing by generating a line.
- SEE OR SEARCH CLASS:
346, Recorders, subclasses 107.1+ for a photographic recorder.
- 550 Photoelectronic type:**
This subclass is indented under subclass 549. Subject matter wherein the characters to be reproduced are shown on a cathode-ray tube.
- 551 Having character printing control by program card, tape, or disk:**
This subclass is indented under subclass 549. Subject matter including means to sense holes, indentations, or other index marks on a sheet, tape, or disk and means responsive to the condition of such sensing means for governing the printing of the characters.
- 552 Having justifying, tabulating, centering, or spacing apparatus:**
This subclass is indented under subclass 549. Subject matter including means to adjust the space before, after, or between characters of a completed line.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
554, for line correction by optics.
- SEE OR SEARCH CLASS:
234, Selective Cutting (e.g., Punching), subclasses 4+ for type width and interword space totalizer.
- 553 With electrical pulse counter:**
This subclass is indented under subclass 552. Subject matter which includes a circuit which electrically totalizes pulses applied thereto.

- SEE OR SEARCH CLASS:
377, Electrical Pulse Counter, Pulse Dividers, or Shift Registers: Circuits and Systems, appropriate subclasses for an electrical pulse counter, per se.
- 554 Optical line correction:**
This subclass is indented under subclass 549. Subject matter including optical means to change the length of a line or the size of the object to be reproduced.
- 555 Having means to detect indicia:**
This subclass is indented under subclass 549. Subject matter including means to sense holes, indentations, or other index markers on the character or character support and means responsive to the conditions of such sensing means for insuring the character will be reproduced in the desired arrangement.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
551, for the sensing of holes, indentations, or index marks, etc., on a web or tape to control printing of characters.
- 556 Having stencil-type character means:**
This subclass is indented under subclass 549. Subject matter including opaque planar means having a mark, sign, or symbol shaped perforation thereon.
- 557 Plural character types:**
This subclass is indented under subclass 556. Subject matter having two or more different styles of characters; e.g., upper or lower case letters.
- 558 Having a moveable carrier:**
This subclass is indented under subclass 556. Subject matter including means to hold or support said characters and means to apply a force to said holder or support to effect a motion in a particular direction, or means to constrain the motion of said holder or support in a desired direction.
- 559 Rotary:**
This subclass is indented under subclass 558. Subject matter comprising means to cause the holder or support to move in a curvilinear path.
- 560 Key operative:**
This subclass is indented under subclass 559. Subject matter wherein the movement is caused by a manually actuated lever.
- 561 Fixed carrier:**
This subclass is indented under subclass 556. Subject matter including means to hold or support the characters in a desired position fixedly with respect to a reproducing device.
- 562 Photographic medium handling:**
This subclass is indented under subclass 549. Subject matter including manipulation of a light-sensitive film or plate.
- 563 SENSITOMETRY:**
This subclass is indented under the class definition. Subject matter relating to the determination of the sensitivity of photographic material to light.
- (1) Note. Sensitometers test the sensitivity of photographic material to light whereas actinometers or exposure meters test light intensity and densitometers test the light transmission characteristics of material.
- (2) Note. This subclass also provides for the making of optical wedges of varying light transmission characteristics involving the controlled exposure of photosensitive material to light for use in subsequent sensitometric apparatus.
- SEE OR SEARCH CLASS:
355, Photocopying, subclasses 38, 68, and 83 for combinations including photocells or light-monitoring means.
356, Optics: Measuring and Testing, subclasses 213+ for light exposure meters, per se, and subclasses 443+ for means which measure film density by light transmission or absorption. See (3) Note under subclass 443 for classification of methods which involve the comparison of optical densities of the type found in subclasses 443+ in combination with an exposure of a visible light sensitive film.

- 359, Optics: Systems (Including Communication) and Elements, subclasses 885+ for light filters, per se, and the classes recited thereat, under (1) Note.
- 564 FLUID-TREATING APPARATUS:**
This subclass is indented under the class definition. Subject matter having a device for subjecting a photographic medium to a gas or liquid or to related subcombinations not classified elsewhere.
- (1) Note. See the note to "Fluid Treating Apparatus" in the main class definition.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
30+, for a self-developing camera.
FOR 915+, for foreign art collections involving fluid-treating apparatus.
- SEE OR SEARCH CLASS:
8, Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers, subclasses 400 through 696 for the process of dyeing a plastic.
34, Drying and Gas or Vapor Contact With Solids, see (1) Note above.
68, Textiles: Fluid Treating Apparatus, appropriate subclasses for analogous apparatus applied to fluid treatment of textiles.
118, Coating Apparatus, appropriate subclasses for apparatus for coating a surface with a sensitized solution.
355, Photocopying, see (1) Note above.
366, Agitating, see (1) Note above.
399, Electrophotography, subclasses 237+ for liquid toner development in an electrophotographic device.
430, Radiation Imagery Chemistry: Process, Composition, or Product Thereof, subclasses 401+ for chemical post imaging processing of radiation imagery materials.
- 565 Having fluid filter:**
This subclass is indented under subclass 564. Subject matter including a device which removes undesired particulate matter from the treatment fluid.
- 566 Having program card, tape, or disk:**
This subclass is indented under subclass 564. Subject matter which utilizes an information bearing device that controls a fluid treating sequence of operations.
- 567 Photographic medium or cartridge sensing:**
This subclass is indented under subclass 564. Subject matter wherein a characteristic or presence of a light-sensitive medium or container therefor is detected.
- 568 Photographic medium length, width, area, or amount sensing:**
This subclass is indented under subclass 567. Subject matter wherein a geometric property or the quantity of a light-sensitive medium is detected.
- 569 Transmittivity/reflectivity of photographic medium sensing:**
This subclass is indented under subclass 567. Subject matter having means to project light onto or through a photographic medium and a detecting photoresponsive device which determines the density of the photographic medium or the extent of development.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
563, for sensitometry which may include a subsequent density determination.
- 570 Photocell controlled:**
This subclass is indented under subclass 564. Subject matter with a light-responsive device which regulates some portion of the fluid-treating apparatus.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
213+, for photocell exposure control circuits.
FOR 916, for a foreign art collection involving photocell controlled fluid-treating apparatus.
- SEE OR SEARCH CLASS:
137, Fluid Handling, subclass 93 for mixtures maintained by optical properties.
250, Radiant Energy, subclasses 200+ for photocell circuits.

571 Heating, cooling, or temperature detecting:
This subclass is indented under subclass 564. Subject matter with means for changing the temperature of the apparatus, fluid or material or sensing the thermal condition thereof.

- (1) Note. This subclass includes a processing fluid tank combined with a thermostatically controlled heat exchanger for the fluid in the tank.
- (2) Note. Mere recitation of elements which may inherently affect the temperature, such as a circulating water bath, is insufficient for placement in this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 917, for a foreign art collection involving fluid-treating apparatus and temperature control.

SEE OR SEARCH CLASS:

- 118, Coating Apparatus, subclass 666 for automatic temperature control of coating apparatus.
- 126, Stoves and Furnaces, subclass 374.1 for an open-top liquid heating vessel that may include a lid and a condition responsive feature.
- 134, Cleaning and Liquid Contact With Solids, subclasses 56+ for automatic control of apparatus of that class.

572 Temperature detecting or controlling of drying station:
This subclass is indented under subclass 571. Subject matter which senses or regulates a temperature condition of or surrounding a photographic medium in an area adapted to remove moisture from the photographic medium.

573 Having liquid bath or jacket:
This subclass is indented under subclass 571. Subject matter wherein a temperature condition inside a fluid-treating vessel is modified by surrounding liquid.

574 Processing vapor from source other than photographic medium:
This subclass is indented under subclass 571. Subject matter wherein a latent image on a photographic medium is made visible by a gas-

eous substance provided externally to the photographic medium.

SEE OR SEARCH THIS CLASS, SUBCLASS:

579, for generic gaseous treating of a photographic medium.

575 Thermal developing, controlling temperature of photographic medium or controlling of developing amount:

This subclass is indented under subclass 571. Subject matter wherein heat causes a latent image on a photographic medium to become visible, the temperature of a light sensitive material is modified, or heating or cooling determines the extent of photographic development.

SEE OR SEARCH THIS CLASS, SUBCLASS:

572, for temperature detecting or controlling of a drying station.

576 Heating processing liquid before entry to treating station:

This subclass is indented under subclass 571. Subject matter wherein a liquid which performs a treating operation is warmed prior to its introduction to a treating station.

577 Plural stations:

This subclass is indented under subclass 571. Subject matter including multiple treating stations.

578 Having testing, calibration, or indicating:

This subclass is indented under subclass 564. Subject matter including an evaluation of a fluid-treating operation or the presentation of the result of such evaluation to an operator.

SEE OR SEARCH THIS CLASS, SUBCLASS:

281+, for camera structure with indicator.

579 Gaseous-treating:

This subclass is indented under subclass 564. Subject matter wherein the fluid is a gas or vapor.

- (1) Note. This subclass includes an ammonia gas generator with means for containing a specific light-sensitive material

in a specific orientation to allow treatment of the material by the generated gas.

- (2) Note. See the note to “Fluid Treating Apparatus” in the main class definition.

SEE OR SEARCH THIS CLASS, SUBCLASS:

438, for subject matter related to daguerre-type photography.
FOR 918, for a foreign art collection involving gaseous-type, fluid-treating apparatus.

SEE OR SEARCH CLASS:

34, Drying and Gas or Vapor Contact With Solids, see (2) Note above.

580 Treating superimposed or laminar sheets:

This subclass is indented under subclass 564. Subject matter wherein an image-exposed strip is brought into contact with a second strip for fluid treatment.

- (1) Note. This subclass includes apparatus for bringing a first sheet with an exposed image thereon into contact with a second (receptor) sheet after fluid has been applied thereto to effect the transfer of the image of the first sheet to the second sheet.

SEE OR SEARCH THIS CLASS, SUBCLASS:

31+, for analogous apparatus in a self-developing camera.
FOR 919+, for foreign art collections involving fluid-treating of superimposed or laminar sheets.

581 Rollers sequentially submerge and press sheet:

This subclass is indented under subclass 580. Subject matter including revolving cylinders to immerse at least one of the strips in treating fluid and subsequently squeeze the strips together.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 920, for a foreign art collection involving fluid-treating of superimposed or laminar sheets where rollers sequentially submerge and press sheet.

582 Having fluid dispensing:

This subclass is indented under subclass 580. Subject matter including means for distributing treating fluid to one of the strips.

- (1) Note. This subclass includes dispensing means such as metered spray devices and wetting rollers or belts.

SEE OR SEARCH THIS CLASS, SUBCLASS:

42, for a self-developing camera with a fluid applicator.
FOR 921+, for foreign art collections involving fluid-treating of superimposed or laminar sheets including fluid dispensing.

SEE OR SEARCH CLASS:

399, Electrophotography, subclass 283 for dispensing of liquid toner in an electrophotographic device.

583 Collapsible container:

This subclass is indented under subclass 582. Subject matter wherein the distributing means includes a rupturable holder.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 922, for a foreign art collection involving fluid-treating of superimposed or laminar sheets including fluid dispensing and having a collapsible container.

584 Removable or variable pressure roller or particular roller texture, composition, configuration or spacing:

This subclass is indented under subclass 583. Subject matter in which a roller may be readily inserted or removed, exerts a modifiable force, or in which a detail is provided of a roller surface characteristic, chemical makeup, shape, or offset distance.

585 Roll film handling:

This subclass is indented under subclass 583. Subject matter which includes manipulation of a photographic medium which has been formed into a cylindrical mass by revolving.

- 586 Nonrolling fluid spreading apparatus:**
This subclass is indented under subclass 583. Subject matter wherein fluid is distributed by means other than a rotating cylinder.
- 587 Having fluid reservoir:**
This subclass is indented under subclass 580. Subject matter including means to store the treating fluid.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
641, for a film processing vessel having a reservoir.
FOR 923, for a foreign art collection involving fluid-treating of superimposed or laminar sheets and having a fluid reservoir.
- 588 Reversal processing:**
This subclass is indented under subclass 564. Subject matter with means for re-exposing the material with an initial latent image thereon.
- (1) Note. This subclass includes means for exposing the material to diffused light after the material has been initially exposed, developed, but not fixed, to produce a positive image when again developed.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 924, for a foreign art collection involving reversal processing fluid-treating apparatus.
- SEE OR SEARCH CLASS:
430, Radiation Imagery Chemistry: Process, Composition, or Product Thereof, subclass 407 for reversal processing involving radiation imagery chemistry.
- 589 Dark cabinet:**
This subclass is indented under subclass 564. Subject matter with a light-excluding case adapted to hold the material while it is being subjected to the fluid subsequent to exposure.
- (1) Note. The light-excluding features must be positively recited for placement in this subclass.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
30+, for a self-developing camera.
517+, for a detail of a camera plate or cut film holder.
FOR 925+, for foreign art collections involving a fluid-treating dark cabinet.
- 590 Hand or body insertion:**
This subclass is indented under subclass 589. Subject matter wherein the case includes means to admit a portion of an operator's body through flexible lightguards.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
362, for a magazine camera with light guard for entrance of hand.
FOR 926+, for foreign art collections involving a fluid-treating dark cabinet having hand or body insertion.
- 591 Hand/arm access ports on opposite sides of cabinet:**
This subclass is indented under subclass 590. Subject matter wherein there are hand/arm openings located on noncontiguous sides of a dark cabinet.
- 592 Multiple hand/arm access ports on single side of cabinet:**
This subclass is indented under subclass 590. Subject matter wherein there are plural hand/arm openings located on one side of a dark cabinet.
- 593 Having ventilation:**
This subclass is indented under subclass 590. Subject matter including means for circulating air through the case.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 927, for a foreign art collection involving a fluid-treating dark cabinet having hand or body insertion and ventilation.
- 594 Daylight loading:**
This subclass is indented under subclass 589. Subject matter having means for introducing the material into the case without the necessity of using a dark room.

- (1) Note. This subclass includes means whereby the nonsensitive end of the material in a roll or cartridge is attached to a device which may be actuated after a lightproof cover of the case is closed to withdraw the sensitive portion for treatment within the lightproof environment of the dark cabinet.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
612+, for disclosed but unclaimed dark cabinet combinations including material feed means.
FOR 928, for a foreign art collection involving a daylight loading dark cabinet.
- 595 Having film-holding cabinet insertable into developing tank:**
This subclass is indented under subclass 589. Subject matter including means to support the material in a casing which is insertable into a fluid-treating receptacle.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 929, for a foreign art collection involving a film-holding cabinet insertable into developing tank.
- 596 Protective cover stripping:**
This subclass is indented under subclass 595. Subject matter wherein a backing which prevents damage to a photographic medium is peeled off.
- 597 Film in spaced spiral for processing:**
This subclass is indented under subclass 595. Subject matter including rolled film which is inserted into means providing a spaced spiral configuration to the film or wherein rolled film is wrapped on the outside of an elongated cylinder prior to further processing.
- 598 Having film support or handling means:**
This subclass is indented under subclass 589. Subject matter including means to hold the material in position or manipulate the material.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 930+, for foreign art collections involving a dark cabinet and film support or handling means.
- 599 Roll film handling:**
This subclass is indented under subclass 598. Subject matter having means for manipulating the material that is wound into a cylindrical mass.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 931+, for foreign art collections involving a dark cabinet and roll film handling means.
- 600 Having motor driven film winding spool:**
This subclass is indented under subclass 599. Subject matter including means to convert energy to produce or impart motion to a reel upon which the material is wound.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
387+, for a camera motor film drive.
FOR 932, for a foreign art collection involving a dark cabinet and roll film handling means having motor driven film winding spool.
- 601 Film in spaced spiral for processing:**
This subclass is indented under subclass 599. Subject matter wherein the rolled film is inserted into means providing a spaced spiral configuration to the film or wherein the rolled film is wrapped on the outside of an elongated cylinder prior to further processing.
- 602 Plate film handling means:**
This subclass is indented under subclass 598. Subject matter wherein the material is relatively inflexible.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 933, for a foreign art collection involving a dark cabinet and plate film-handling means.

- 603 Film immersed and removed:**
This subclass is indented under subclass 598. Subject matter wherein the means to manipulate the material effects a dipping action.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
617+, for dipping means not limited to use in a dark cabinet.
FOR 934, for a foreign art collection involving a dark cabinet having film support and film immersed and removed.
- 604 Fluid application to one side only of photographic medium:**
This subclass is indented under subclass 564. Subject matter wherein the device applies the fluid to only a single side of the material.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
582+, where superimposed or laminar sheets are treated.
FOR 935+, for foreign art collections involving fluid-treating apparatus having fluid application to one side only of film.
- SEE OR SEARCH CLASS:
118, Coating Apparatus, appropriate subclasses for means for applying a surface coating on a base.
134, Cleaning and Liquid Contact With Solids, subclasses 88+ for means including fluid-applying means.
401, Coating Implements With Material Supply, subclasses 137+ and 208+ for manually operated means for dispensing or applying material to work.
- 605 By web:**
This subclass is indented under subclass 604. Subject matter wherein fluid is applied by a pliable belt.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 936, for a foreign art collection involving fluid-treating apparatus having fluid application by web to one side only of film.
- 606 By roller:**
This subclass is indented under subclass 604. Subject matter having a revolving cylinder as the fluid applicator.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
FOR 936, for a foreign art collection involving fluid-treating apparatus having fluid application by roller to one side only of film.
- 607 Having clutch or specified speed:**
This subclass is indented under subclass 606. Subject matter which includes structure to couple or decouple driving means to a roller or having details of the rotational speed thereof.
- 608 Having doctoring or wiper blade:**
This subclass is indented under subclass 606. Subject matter which, in addition to a roller, includes the spreading of a predetermined amount of fluid to one side of a photographic medium by a broad, flat device.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
610, for fluid application by means other than a roller to a photographic medium contained in a cassette or cartridge which may additionally include a blade detail.
- 609 Nonroller fluid application to downward facing emulsion surface:**
This subclass is indented under subclass 604. Subject matter wherein fluid is dispensed towards the downward facing emulsion side of a photographic medium by means other than a rotating cylinder.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
606+, for a roller applying fluid to a downward facing emulsion surface.
- 610 Having photographic medium cassette or cartridge:**
This subclass is indented under subclass 604. Subject matter wherein a light-sensitive medium is in a light-tight, portable container.

- 611 Plate or wafer-type photographic medium:**
This subclass is indented under subclass 604. Subject matter wherein the light responsive medium is planar and relatively rigid.
- 612 Having photographic medium feed:**
This subclass is indented under subclass 564. Subject matter including means to introduce or withdraw the material into or from a fluid-treating area.
- (1) Note. This and indented subclasses include means that provide sprockets that engage perforations in the material and which are driven by motive power means as well as means that grip one end of a film strip to pull the film strip.
- (2) Note. Mere guide means that do not include drive or propelling means is not sufficient for this subclass.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
387+, for camera structure with film drive.
FOR 937+, for foreign art collections involving fluid-treating apparatus having film feed.
- SEE OR SEARCH CLASS:
242, Winding and Reeling, appropriate subclasses, for winding and reeling means, per se.
271, Sheet Feeding or Delivering, appropriate subclasses for feeding or delivering sheet material means.
- 613 And cutting device:**
This subclass is indented under subclass 612. Subject matter which includes means for severing the photographic medium or its container.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
445, for camera detail having film cutoff.
- 614 And scrub brush, wipers, squeegee, or squeeze rollers:**
This subclass is indented under subclass 612. Subject matter including means providing a rubbing action to the photographic medium.
- 615 Variable path length, variable path width, or alternative path:**
This subclass is indented under subclass 612. Subject matter wherein the route taken by the photographic medium during processing is adjustable in length, width, or wherein plural selectable routes are provided.
- 616 Having clutch, speed detail, or variable processing time:**
This subclass is indented under subclass 612. Subject matter which includes structure to couple or decouple driving means in the photographic medium feed, provides a detail of photographic medium feed velocity, or permits adjustable treatment time of the photographic medium.
- 617 And photographic medium immersed and removed:**
This subclass is indented under subclass 612. Subject matter with means to dip the material in the fluid.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 938+, for foreign art collections involving fluid-treating apparatus including film feed where the film is immersed and removed.
- 618 Having band, belt, or chain:**
This subclass is indented under subclass 617. Subject matter in which the photographic medium transmission mechanism includes an elongated loop of material.
- 619 Having detail of feed mechanism cleaning:**
This subclass is indented under subclass 617. Subject matter including means to remove dirt or debris from the photographic medium feed structure or to facilitate cleaning thereof.
- 620 Strip type:**
This subclass is indented under subclass 617. Subject matter wherein the material is relatively long and narrow.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 939, for a foreign art collection involving fluid-treating apparatus including

strip film feed where the film is immersed and removed.

SEE OR SEARCH CLASS:

226, Advancing Material of Indeterminate Length, appropriate subclasses for strip advancing means, per se.

621 Crane type:

This subclass is indented under subclass 620. Subject matter wherein the strip-type material is suspended from an overhead device which transports it to a processing area.

622 Plural stations:

This subclass is indented under subclass 617. Subject matter wherein there is more than one treating area.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 940, for a foreign art collection involving fluid-treating apparatus including film feed where the film is immersed into and removed from plural stations.

623 Film in spaced spiral for processing:

This subclass is indented under subclass 612. Subject matter wherein film is inserted into means providing a spaced spiral configuration to the film or wherein the rolled film is wrapped on the outside of an elongated cylinder prior to further processing.

624 Plural stations:

This subclass is indented under subclass 612. Subject matter including photographic medium feed between multiple processing areas.

625 Single station and plural fluids:

This subclass is indented under subclass 564. Subject matter wherein plural diverse fluids are selectively applied to the material and then withdrawn from a single processing area.

(1) Note. This subclass includes means for supplying a liquid to a material processing tank, withdrawing the liquid, and repeating the sequence with a different liquid.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 941, for a foreign art collection involving fluid-treating apparatus having a single station and plural fluids.

SEE OR SEARCH CLASS:

134, Cleaning and Liquid Contact With Solids, subclasses 94.1+ for means for supplying or applying plural different fluids.

626 Having fluid-circulating means:

This subclass is indented under subclass 564. Subject matter including means for introducing and withdrawing the fluid to and from a treatment area.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 942+, for foreign art collections involving fluid-treating apparatus and fluid circulating means.

627 And fluid-spraying means:

This subclass is indented under subclass 626. Subject matter with fluid spraying means.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 943, for a foreign art collection involving fluid-treating apparatus including fluid circulating and spraying means.

SEE OR SEARCH CLASS:

239, Fluid Sprinkling, Spraying, and Diffusing, appropriate subclasses for fluid spraying means, per se.

399, Electrophotography, subclass 246 for spraying.

628 And photographic medium support means:

This subclass is indented under subclass 626. Subject matter with means to hold the photographic medium in position for treatment.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 944, for a foreign art collection involving fluid-treating apparatus including fluid circulating and plate support means.

629 And rocking tray or support:

This subclass is indented under subclass 626. Subject matter including means to effect oscillation of a fluid vessel or material holder.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 945, for a foreign art collection involving fluid-treating apparatus including fluid circulating by rocking tray or support.

SEE OR SEARCH CLASS:

366, Agitating, subclass 239 for a mixing chamber having rocking motion without a separate workholder.

630 Plural stations:

This subclass is indented under subclass 626. Subject matter including multiple processing areas.

631 For wash station:

This subclass is indented under subclass 626. Subject matter wherein circulating fluid is utilized in the processing area which provides rinsing of a photographic medium.

632 Having electrical circuit:

This subclass is indented under subclass 626. Subject matter wherein the fluid circulating means includes plural interconnected electrical elements.

(1) Note. Examples of electrical elements are transistors, diodes, resistors, and capacitors.

633 Having fluid-agitating means:

This subclass is indented under subclass 564. Subject matter including means within a treating vessel for vibrating the fluid or means to vibrate the vessel or a material holder to produce fluid vibration.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 946+, for foreign art collections involving fluid-treating apparatus including fluid agitating means.

SEE OR SEARCH CLASS:

366, Agitating, subclasses 108+ for agitation by vibration.

634 Rotating carrier:

This subclass is indented under subclass 633. Subject matter wherein the means includes a revolving material holder.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 947+, for foreign art collections involving fluid-treating apparatus including fluid-agitating and rotating carrier.

SEE OR SEARCH CLASS:

134, Cleaning and Liquid Contact With Solids, subclasses 157+ for apparatus including a rotary work holder.

635 Motor driven:

This subclass is indented under subclass 634. Subject matter including means to convert energy to produce or impart motion to the holder.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 948, for a foreign art collection involving fluid-treating apparatus including fluid agitating and motor driven rotating carrier.

636 Photographic medium processing vessel:

This subclass is indented under subclass 564. Subject matter wherein the device includes a fluid receptacle for the treatment of the material.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 949+, for foreign art collections involving a fluid-treating apparatus film or print processing vessel.

SEE OR SEARCH CLASS:

220, Receptacles, appropriate subclasses for receptacles, per se, and the search notes therein for other pertinent classes.

366, Agitating, subclass 166.1 for print washer-type agitator. Also, see Lines With Other Classes and Within This

Class, Fluid-treating Apparatus Classified Elsewhere, in the class definition of this class (396).

637 Having interlocking doors:

This subclass is indented under subclass 636. Subject matter including treating areas separated by a light-excluding partition and interlinked closures.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 950, for a foreign art collection involving a fluid-treating apparatus film or print processing vessel having interlocking doors.

638 Attachment or accessory:

This subclass is indented under subclass 636. Subject matter including a device which may be attached to the receptacle or to a support for the receptacle.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 951+, for foreign art collections involving a fluid-treating apparatus film or print processing vessel including an attachment or accessory.

SEE OR SEARCH CLASS:

220, Receptacles, subclasses 694+ for attachments for metallic receptacles.

639 Visual photographic medium scanner:

This subclass is indented under subclass 638. Subject matter wherein the attachment device includes means to permit the visual scanning of the material.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 952, for a foreign art collection involving a fluid-treating apparatus film or print processing vessel including an attachment or accessory which allows visual film scanning.

640 Adjustable photographic medium holding means:

This subclass is indented under subclass 638. Subject matter wherein the device includes means to alter the position of a material support.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 953, for a foreign art collection involving a fluid-treating apparatus film or print processing vessel including an attachment or accessory which allows adjustment of film holder.

641 Reservoir:

This subclass is indented under subclass 638. Subject matter wherein the attachable device is a fluid storage means.

(1) Note. This subclass includes structure defining a fluid recess that may depend upon the position of the vessel. That is, the attachment may form a lip with the top of the vessel so that when the vessel is placed on a side, a fluid recess is formed.

SEE OR SEARCH THIS CLASS, SUBCLASS:

587, for fluid-treating of superimposed or laminar sheets having a fluid reservoir.

FOR 954, for a foreign art collection involving a fluid-treating apparatus film or print processing vessel including an attachment or accessory reservoir.

642 Having photographic medium support:

This subclass is indented under subclass 636. Subject matter including structure to hold the light-sensitive material.

(1) Note. This subclass includes a tank or tray with film supports that are integral with the tank or tray such as projections that space the material from the bottom of the tank or tray.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 955, for a foreign art collection involving a fluid-treating apparatus film or print processing vessel including film or plate support.

643 In shallow tray or pan:

This subclass is indented under subclass 642. Subject matter wherein the support of the light-sensitive medium is located in an open container of negligible depth.

644 For plate:

This subclass is indented under subclass 642. Subject matter which provides support for a relatively rigid photographic medium.

645 Having film-guiding ribs:

This subclass is indented under subclass 636. Subject matter including passive means to limit a path of movement of the material during its treatment by a fluid.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 956, for a foreign art collection involving a fluid-treating apparatus film or print processing vessel and film guiding ribs.

646 Film guide:

This subclass is indented under subclass 564. Subject matter having passive means to limit a path of movement of the material during its treatment by a fluid.

SEE OR SEARCH THIS CLASS, SUBCLASS:

642, for a film-processing vessel with film support.

FOR 957, for a foreign art collection involving a fluid-treating apparatus including film guide.

SEE OR SEARCH CLASS:

226, Advancing Material of Indeterminate Length, may include a nominal recitation of a supply or take-up coil (e.g., less than a support for such a coil or a cooperative relationship between a tension or exhaust detector and reel driving or reel stopping means, etc.), subclass 196.1 for a passive guide combined with a material feeder.

242, Winding, Tensioning, Guiding, subclasses 615+ for a residual guide or guard that directs elongated flexible material that may be combined with more than nominal winding structure.

647 Photographic medium holding device:

This subclass is indented under subclass 564. Subject matter having structure by which the material is lifted, stretched or supported for treatment and wherein the structure is independent of a fluid vessel.

(1) Note. This subclass provides for film, print, or plateholders, per se, that are manually manipulated by an operator and are generally designed to contact the light-sensitive material in areas that will not mar the image areas while allowing fluid contact with the image areas when the holder and material is moved into treatment areas.

SEE OR SEARCH THIS CLASS, SUBCLASS:

642, for a film-processing vessel with film support.

FOR 958+, for foreign art collections involving a fluid-treating apparatus film-holding device.

648 Spool:

This subclass is indented under subclass 647. Subject matter wherein the structure is cylindrical usually having a rim or ridge at each end and an axial portion on which or about which the material is placed.

SEE OR SEARCH THIS CLASS, SUBCLASS:

FOR 959, for a foreign art collection involving a fluid-treating apparatus film holding spool device.

649 Tensioning means:

This subclass is indented under subclass 647. Subject matter wherein the structure includes means for stretching the material.

(1) Note. "Tensioning" as used herein does not include the inherent tensioning that occurs when the material is bowed or slightly bent when inserted into retaining slots or grooves.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 960, for a foreign art collection involving a fluid-treating apparatus film-holding tensioning device.

650

Adjustable means:

This subclass is indented under subclass 647. Subject matter wherein the structure includes means to permit movement of elements to accommodate material of different sizes.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 961, for a foreign art collection involving a fluid-treating apparatus film holding device which is adjustable.

651

Retaining means:

This subclass is indented under subclass 647. Subject matter wherein the structure includes means for restraining the material.

(1) Note. This subclass includes hangers or holders with slots, guides, or compartments for loosely holding the material and does not include clamping.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
652+, for photographic medium clamping means.
FOR 962, for a foreign art collection involving a fluid-treating apparatus film-retaining device.

652

Gripping means:

This subclass is indented under subclass 647. Subject matter wherein the structure includes means to clamp the material.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 963+, for foreign art collections involving a fluid-treating apparatus, film-gripping device.

653

Frame with opposed force-gripping means:

This subclass is indented under subclass 652. Subject matter having an open structure providing means in fixed spatial relationship which can apply opposing force to both sides of at least one set of noncontiguous film edges.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 964, for a foreign art collection involving a fluid-treating apparatus opposed frame-gripping means.

654

Plate:

This subclass is indented under subclass 652. Subject matter wherein the structure is adapted to clamp relatively rigid material.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
438, for a daguerreotype plate vise.
FOR 965, for a foreign art collection involving a fluid-treating apparatus, plate-gripping means.

655

RETOUCHING:

This subclass is indented under the class definition. Subject matter including mechanical means for improving a photographic surface by adding lines, stipples, etc.

(1) Note. Broadly claimed tools, per se, that are disclosed for multiple utility will be classified with the other art device; e.g., cleaning, abrading, coating, etc.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 966+, for foreign art collections involving photographic retouching.

SEE OR SEARCH CLASS:

401, Coating Implements With Material Supply, and the notes thereto in regard to manually manipulated devices for applying or spreading a coating on a work surface by movement of the device relative to the surface and contact therewith. Note especially section V of the definitions thereat.

433, Dentistry, subclasses 118+ for similar tools.

656

Stand:

This subclass is indented under subclass 655. Subject matter having means for holding an article which is to be retouched, usually characterized by an open framework which permits illumination of the underside of the article.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 967+, for foreign art collections involving a photographic retouching stand.

657 Vibrating:

This subclass is indented under subclass 656. Subject matter including means to give a vibratory motion to the holder.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 968, for a foreign art collection involving a photographic vibrating retouching stand.

658 BURNISHING:

This subclass is indented under the class definition. Subject matter having means to polish a photographic image by applying friction to it or heat and pressure to it.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
438, for a daguerreotype plate vise that may be used for burnishing.
FOR 969+, for foreign art collections involving photographic burnishing.

SEE OR SEARCH CLASS:

- 12, Boot and Shoe Making, appropriate subclasses for burnishing machines and tools adapted for boot or shoe making.
- 29, Metal Working, subclasses 90.01+ for machines or processes for condensing, compacting, smoothing or polishing the surface of metallic or nonmetallic articles, usually by rubbing them with a smooth surface of greater hardness than that of the article being operated upon.
- 38, Textiles: Ironing or Smoothing, appropriate subclasses for ironing and smoothing fabrics generally.
- 100, Presses, appropriate subclasses for presses not otherwise provided for.

659 Rotary burnishing surface:

This subclass is indented under subclass 658. Subject matter wherein the surface which actually polishes the photograph revolves around an axis.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 970+, for foreign art collections involving photographic rotary machine burnishing.

660 Internally heated:

This subclass is indented under subclass 659. Subject matter including means to raise the temperature of a rotary tool.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
FOR 971, for a foreign art collection involving photographic burnishing by a rotary machine which is internally heated.

661 MISCELLANEOUS:

This subclass is indented under the class definition. Subject matter which is not provided for in any of the preceding subclasses of this class.

SEE OR SEARCH CLASS:

- 462, Books, Strips and Leaves for Manifolding, subclasses 25+ for transfer strips, per se.

FOREIGN ART COLLECTIONS

Subclasses 1-661 in this class may have associated foreign-patents/nonpatent-literature from that portion of Class 354 foreign-patents/nonpatent-literature which was reclassified. The remaining foreign-patents/nonpatent-literature from old Class 354 have been transferred directly to foreign art collections below (FOR 700-FOR 971) which are intended as repositories for only foreign-patents/nonpatent-literature. Foreign-patents/nonpatent-literature in subclasses 1-661 as well as in the foreign art collections (FOR 700-FOR 971) should be considered in completing a search. The Class 354 subclass reference in parentheses following each subclass title below provides the source of the respective foreign-patents/nonpatent-literature. Definitions below correspond to the respective Class 354 subclass definitions.

FOR 700 AUTOMATIC CAMERA FOCUSING: (354/400)

Foreign art collection including means responsive to a focus condition of the camera and for automatically adjusting the lens system of the camera to produce a desired degree of sharpness of an image.

- FOR 701 Using sound: (354/401)**
Subject matter under subclass FOR 700 in which the distance to an object is determined by emitting or detecting sound.
- FOR 702 Having photoelectric focusing system or device: (354/402)**
Subject matter under subclass FOR 700 including a photoelectric means responsive to the focus condition of the camera and for adjusting the lens system of the camera to produce a desired degree of sharpness of an image.
- FOR 703 Using active ranging: (354/403)**
Subject matter under subclass FOR 702 in which the photoelectric means responds to artificially generated light reflected off an object.
- FOR 704 Having moving optical means in front of photocell: (354/404)**
Subject matter under subclass FOR 702 having an optical means other than the camera lens which is moved in a manner in front of the photoelectric means for focusing purposes.
- FOR 705 Having moving mirror: (354/405)**
Subject matter under subclass FOR 704 in which the optical means is a mirror.
- FOR 706 Having stationary beam splitter: (354/406)**
Subject matter subclass FOR 702 having a stationary optical means which splits the image light into a plurality of paths for focusing purposes.
- FOR 707 Having split image means: (354/407)**
Subject matter under subclass FOR 706 in which the stationary optical means fractures the image light into more than one partial image for focusing purposes.
- FOR 708 Having two separate stationary predetector optical systems: (354/408)**
Subject matter under subclass FOR 702 having two photoelectric means each one having a stationary lens system of focusing the image of an object.
- FOR 709 Having focus indicator: (354/409)**
Subject matter under subclass FOR 702 having an indicator which shows the state of focus of the camera.
- FOR 710 AUTOMATIC EXPOSURE CONTROL SYSTEM OR DEVICE: (354/410)**
Foreign art collection having means which automatically controls the exposure of photographic film in combination with camera structure.
- FOR 711 Nonphotoelectric exposure control type: (354/411)**
Subject matter under subclass FOR 710 having a radiant energy responsive device which does not employ the photoelectric effect (e.g., comparison photometer).
- FOR 712 For controlling entire photographic operation: (354/412)**
Subject matter under subclass FOR 710 which includes circuitry for controlling the entire photographic operation of exposing photographic film.
- FOR 713 Including artificial illumination system or device: 354/413)**
Subject matter under subclass FOR 710 including a light source to direct light to an object, or means to control the intensity or time interval of light from the light source.
- FOR 714 For fill-in illumination: (354/414)**
Subject matter under subclass FOR 713 in which the artificial light is used to supplement natural lighting.
- FOR 715 Having preexposure flashing: (354/415)**
Subject matter under subclass FOR 713 in which an entire flash cycle occurs prior to commencing an exposure cycle and second flash cycle occurs during the exposure cycle.
- FOR 716 Having flash termination control: (354/416)**
Subject matter under subclass FOR 713 in which illumination from the artificial light source is terminated after a time determined by a light responsive device.
- FOR 717 Quench type: (354/417)**
Subject matter under subclass FOR 716 in which termination occurs by shorting or shunting the flash power source.

- FOR 718 Charge level or power supply responsive: (354/418)**
Subject matter under subclass FOR 713 having circuitry responsive to the charge level or power supply condition of the flash device.
- FOR 719 Automatically activated under low light condition:(354/419)**
Subject matter under subclass FOR 713 in which the flash device is automatically enabled whenever insufficient scene light exists.
- FOR 720 Controlling exposure without controlling flash: (354/420)**
Subject matter under subclass FOR 713 in which artificial illumination is held constant and circuitry adjusts either the diaphragm or exposure time dependent on the artificial illumination.
- FOR 721 Having follow focus control of exposure: (354/421)**
Subject matter under subclass FOR 720 having means for setting the distance to the subject which controls the exposure circuitry.
- FOR 722 Having single circuit controlling the shutter and diaphragm: (354/422)**
Subject matter under subclass FOR 720 in which a single circuit controls both the shutter and diaphragm.
- FOR 723 Having means for controlling only the diaphragm: (354/423)**
Subject matter under subclass FOR 720 in which circuitry controls only the diaphragm functions.
- FOR 724 Having photocell used as flash trigger: (354/424)**
Subject matter under subclass FOR 713 in which the light responsive means responds to a burst of light for triggering the start of flash operation.
- FOR 725 Having log transformation circuit: (354/425)**
Subject matter under subclass FOR 710 in which the voltage or current from a light responsive means is transformed to a natural log function.
- FOR 726 Digital: (354/426)**
Subject matter under subclass FOR 725 in which a counter or register is used for transformation.
- FOR 727 Having log expansion: (354/427)**
Subject matter under subclass FOR 725 in which the logarithmic voltage or current is inversely transformed to its original value.
- FOR 728 Having temperature compensation circuit: (354/428)**
Subject matter under subclass FOR 725 having circuitry which electrically compensates for changes in the logarithmic transformation circuitry due to temperature changes.
- FOR 729 Having plural photocells: (354/429)**
Subject matter under subclass FOR 710 having more than one light responsive device.
- FOR 730 Measuring special property of light or subject (e.g., color, speed, etc.): (354/430)**
Subject matter under subclass FOR 729 in which the light responsive means measures properties of the light other than intensity.
- FOR 731 Having light reflected from film or shutter: (354/431)**
Subject matter under subclass FOR 729 in which the light responsive means receives light which has been reflected from the film or shutter in the camera.
- FOR 732 Having more than two cells: (354/432)**
Subject matter under subclass FOR 729 in which more than two discrete light responsive means are present.
- FOR 733 Having only two cells measuring light directly from subject: (354/433)**
Subject matter under subclass FOR 729 in which only two light responsive means are present and each receive light directly from the object with no more than a lens or aperture in front of each light responsive means.
- FOR 734 Having only two cells used to control exposure time: (354/434)**
Subject matter under subclass FOR 729 in which only two light responsive means are present and the outputs of each are used to control exposure time.

FOR 735 Having circuit for controlling a diaphragm shutter: (354/435)

Subject matter under subclass FOR 710 including a circuit which controls a single means behind the camera's optical system for limiting both the cross sectional area of the admitted light and the length of time the film is exposed to the light.

FOR 736 Walking beam type: (354/436)

Subject matter under subclass FOR 735 in which the diaphragm shutter is formed by two sliding rigid plates which move in opposite directions.

FOR 737 Using digital control: (354/437)

Subject matter under subclass FOR 736 in which the circuit contains either a counter, register or analog to digital converter.

FOR 738 Clamp or stop needle type: (354/438)

Subject matter under subclass FOR 735 in which the specific maximum aperture is set by a follower making mechanical contact with the needle of a galvanometer which is controlled by the circuit.

FOR 739 Stepping motor type: (354/439)

Subject matter under subclass FOR 735 in which the diaphragm shutter is driven by a stepping motor.

FOR 740 Solenoid control type: (354/440)

Subject matter under subclass FOR 735 in which a solenoid is used to release the diaphragm shutter or to stop the diaphragm shutter at a specific aperture size.

FOR 741 Having circuit for controlling separate diaphragm and shutter: (354/441)

Subject matter under subclass FOR 710 including a circuit which controls a separate means for limiting the cross sectional area of the admitted light and a separate means for limiting the length of time the film is exposed to the light.

FOR 742 Having selectable priority: (354/442)

Subject matter under subclass FOR 741 in which electrical parameters of the circuit may be manually set to selectively set exposure time or aperture or to have both expo-

sure time and aperture automatically determined.

FOR 743 Having programmed control only: (354/443)

Subject matter under subclass FOR 741 in which aperture and exposure time are both always automatically set.

FOR 744 Having exposure time priority only: (354/444)

Subject matter under subclass FOR 741 in which exposure time is always manually set and aperture is always automatically set.

FOR 745 Having aperture priority only: (354/445)

Subject matter under subclass FOR 741 in which aperture is always manually set and exposure time is always automatically set.

FOR 746 Having circuit for controlling diaphragm only: (354/446)

Subject matter under subclass FOR 710 including a circuit which is limited solely to controlling the cross sectional area of the admitted light.

FOR 747 Clamp or stop needle type: (354/447)

Subject matter under subclass FOR 746 in which the specific maximum aperture is set by a follower making mechanical contact with the needle of a galvanometer which is controlled by the circuit.

FOR 748 Ratchet/pawl type: (354/448)

Subject matter under subclass FOR 746 in which the diaphragm is stopped at a specific aperture by engagement of a pawl with a ratchet.

FOR 749 Direct drive galvanometer type: (354/449)

Subject matter under subclass FOR 746 in which the rotation of a galvanometer controlled by the circuit is directly transmitted via a shaft or gear train for moving the diaphragm to a specific aperture.

FOR 750 Having bridge circuit: (354/450)

Subject matter under subclass FOR 749 in which the circuit contains a network having two terminal pairs one of which is connected to a galvanometer and arranged such that when power is fed to one terminal pair, by suitable adjustment of the elements in the

- network, zero output is obtained at the terminal pair connected to the galvanometer.
- FOR 751 Servo motor type: (354/451)**
Subject matter under subclass FOR 746 in which the circuit contains a feedback section indicative of the specific aperture value which is used to make further adjustment to the aperture.
- FOR 752 Using stepping motor: (354/452)**
Subject matter under subclass FOR 751 in which the servo circuit is used to control a stepping motor which drives the diaphragm to a specific aperture.
- FOR 753 Including special driving arrangement: (354/453)**
Subject matter under subclass FOR 746 in which the diaphragm is driven directly by a linear solenoid, electrostatic force or by an electro-optical means.
- FOR 754 Including irregular diaphragm opening: (354/454)**
Subject matter under subclass FOR 746 in which the diaphragm means produces an irregularly varying aperture.
- FOR 755 Having interchangeable lens: (354/455)**
Subject matter under subclass FOR 746 in which the circuit is adapted to be used in cameras having interchangeable lens.
- FOR 756 AERIAL CAMERA: (354/65)**
Foreign art collection wherein a camera is specifically adapted for aerial photography or a camera combined with or specially adapted for attachment to a support which is at a practically inaccessible altitude or a camera with means specially adapted for controlling exposures at inaccessible altitudes.
- FOR 757 Having shutter or film feed speed and air or spin speed synchronizing: (354/66)**
Subject matter under subclass FOR 756 wherein the camera has means for varying the speed of the shutter or light sensitive material feeding mechanism in response to a change in the speed of an air vehicle.
- FOR 758 Remote exposure control: (354/67)**
- Subject matter under subclass FOR 756 including means to control a camera by a device actuated by radiation whereby an operator or a radiation source can control the camera through the device from a remote point.
- FOR 759 Simultaneous recording of plural images: (354/68)**
Subject matter under subclass FOR 756 wherein two or more images are recorded at the same time.
- FOR 760 Plural images recorded on plural film: (354/69)**
Subject matter under subclass FOR 759 wherein the plural images are recorded on separate light sensitive materials.
- FOR 761 Having camera direction stabilizing (e.g., gyroscope, etc.): (354/70)**
Subject matter under subclass FOR 756 wherein the camera has an image stabilizing system to compensate for the movement of the camera holding structure.
- FOR 762 Including continuously moving film: (354/71)**
Subject matter under subclass FOR 756 wherein a film is shifted without interruption during the recording of a picture.
- FOR 763 Having indicator, signal or scale: (354/72)**
Subject matter under subclass FOR 756 including means to indicate information pertaining to the operation of the camera to an operator.
- FOR 764 Including synchronization: (354/73)**
Subject matter under subclass FOR 756 having means for operating in timed relation two or more devices, e.g., shutter and diaphragm, shutter and illumination means, etc.
- FOR 765 Support or holder: (354/74)**
Subject matter under subclass FOR 756 including means for supporting the camera against gravity.
- FOR 766 EXPOSURE IDENTIFICATION: (354/105)**
Foreign art collection including camera structure and means to facilitate marking

light sensitive surfaces for identification purposes.

FOR 767 Autos:graphic camera: (354/106)

Subject matter under subclass FOR 766 wherein said means is part of the camera structure.

FOR 768 Stencil or indicia transfer strip: (354/107)

Subject matter under subclass FOR 767 wherein said means involves the use of a stencil or transfer strip.

FOR 769 Removable: (354/108)

Subject matter under subclass FOR 768 wherein said strip is inserted or extracted from said camera during normal usage.

FOR 770 Having auxiliary identification photographing system: (354/109)

Subject matter under subclass FOR 766 including means for recording a plurality of objects in a plurality of planes, the reproduction of which is recorded on a single frame of said surface.

FOR 771 OBJECT ILLUMINATION COMBINED WITH CAMERA STRUCTURE: (354/126)

Foreign art collection having artificial means to illuminate a subject in combination with camera structure.

FOR 772 Having measuring, testing or indicating: (354/127.1)

Subject matter under subclass FOR 771 including means for measuring, testing or indicating some condition of the illumination source or the camera structure.

FOR 773 Having flash ready indicator: (354/127.11)

Subject matter under subclass FOR 772 in which the readiness of the flash device is indicated.

FOR 774 Indicating power source status: (354/127.12)

Subject matter under subclass FOR 773 in which the indicator is responsive to the quantity of charge on a capacitor, the quantity of voltage or current of a battery or operative status of an electric energy source which powers the flash unit.

FOR 775 Having distance indicator: (354/127.13)

Subject matter under subclass FOR 772 in which the indicator sets or displays the distance from the flash unit to the subject.

FOR 776 Having camera synchronization: (354/129)

Subject matter under subclass FOR 771 including means to actuate the shutter in timed relationship with the illumination means.

FOR 777 Shutter controlled by explosive force of flash device: (354/130)

Subject matter under subclass FOR 776 including a combustible material whose ignition provides a mechanical force to operate a shutter mechanism.

FOR 778 Remote control (e.g., radio wave, etc.): (354/131)

Subject matter under subclass FOR 776 including means to control a camera by a device actuated by radiation whereby an operator or a radiation source can control the camera through the device from a remote point.

FOR 779 Multiple illumination units: (354/132)

Subject matter under subclass FOR 776 including more than one illumination means simultaneously operated.

FOR 780 Having shutter relay or solenoid: (354/133)

Subject matter under subclass FOR 776 including electromagnetic means to actuate or release a shutter.

FOR 781 Having pneumatic shutter release: (354/134)

Subject matter under subclass FOR 776 including gas pressure means to actuate a shutter.

FOR 782 Energizing generator contained in flash unit: (354/135)

Subject matter under subclass FOR 776 including an electromechanical transducer which forms part of a flash unit to produce electric current for energizing the illumination means.

- FOR 783 Reflex focusing mirror closes contacts: (354/136)**
Subject matter under subclass FOR 776 including an illumination circuit that is closed by the movement of a reflex focusing mirror from a focusing position to an exposure position.
- FOR 784 Having time delay adjustment means: (354/137)**
Subject matter under subclass FOR 776 wherein means are provided for varying the time interval between the initiation of the illumination and the shutter actuation.
- FOR 785 Positional: (354/138)**
Subject matter under subclass FOR 784 including means to change the time interval by moving an element to a selected position.
- FOR 786 Having detachable synchronizer: (354/140)**
Subject matter under subclass FOR 776 including means to disconnect the synchronizer from the camera.
- FOR 787 Convertible illumination means: (354/141)**
Subject matter under subclass FOR 776 including means for changing from one type of illumination means to another.
- FOR 788 Percussive illumination source: (354/142)**
Subject matter under subclass FOR 776 including mechanical means to deliver a striking blow to combustible illuminating material.
- FOR 789 Flash unit includes spare lamps: (354/143)**
Subject matter under subclass FOR 776 including means for sequentially substituting operative lamps for expended lamps.
- FOR 790 Having unison film advance and lamp switching: (354/144)**
Subject matter under subclass FOR 789 including means for coordinating the introduction of unexposed light sensitive surface into an exposing position and the substitution of an operative illumination lamp into illumination position.
- FOR 791 Electronic flash unit: (354/145.1)**
Subject matter under subclass FOR 776 having an illumination source of the gas discharge type.
- FOR 792 Curtain shutter: (354/146)**
Subject matter under subclass FOR 776 including a light excluding member which is a flexible sheet or curtain with an opening which passes across a light sensitive surface to produce an exposure and is usually roller mounted.
- FOR 793 Flash unit contacts actuated by shutter movement: (354/147)**
Subject matter under subclass FOR 776 including an electrical firing circuit with switch contacts that are mechanically controlled by the mechanical movement of a shutter or shutter actuator mechanism.
- FOR 794 Lamp substitution: (354/148)**
Subject matter under subclass FOR 771 including means for permitting movement of a spare source into illumination position.
- FOR 795 Having variable illumination angle: (354/149.1):**
Subject matter under subclass FOR 771 in which the illumination angle is adjustable.
- FOR 796 Having flash built into camera: (354/149.11)**
Subject matter under subclass FOR 771 in which the illumination unit is part of the camera body.
- FOR 797 INCLUDING MEANS TO REFLECT IMAGE TO FILM: (354/150)**
Foreign art collection having a mirror to reflect the light rays from an object onto a light sensitive surface.
- FOR 798 TWIN LENS REFLEX CAMERA: (354/151)**
Foreign art collection comprising camera structure with two similar lenses, one a camera lens and one for a viewfinder, which are so coupled that they both focus on exactly the same plane and a mirror in a fixed position to reflect, through the viewfinder lens, exactly the same view as viewed by the camera lens.

FOR 799 REFLEX CAMERA WITH SINGLE OBJECTIVE: (354/152)

Foreign art collection comprising camera structure with one lens and a mirror to reflect an exact view of a scene to a viewfinder and then the mirror is moved so the scene will be recorded.

FOR 800 Film advance means sets mirror: (354/153)

Subject matter under subclass FOR 799 including means to move a light sensitive surface from one frame to another and means to position the mirror so that it will reflect the scene to the viewfinder.

FOR 801 Having means to block light from film (e.g., screen, etc.): (354/154)

Subject matter under subclass FOR 799 having means to obstruct light from the light sensitive surface in addition to a shutter and mirror.

FOR 802 Plural optical means in view finder: (354/155)

Subject matter under subclass FOR 799 including a combination of two or more similar or diverse optical elements which are optically related.

FOR 803 Having manipulating means (e.g., lever, etc.): (354/156)

Subject matter under subclass FOR 799 having a lever which is operated by hand to move the mirror.

FOR 804 Plate camera: (354/157)

Subject matter under subclass FOR 799 including two or more sensitized surfaces, herein called "plates", not in the same plane are encased within a camera and are brought to the exposure position one at a time without opening the receiver to light.

FOR 805 Folding, collapsible or bellows camera: (354/158)

Subject matter under subclass FOR 799 including means to effect a reduction in camera size from an operative condition to an inoperative condition.

FOR 806 PICTURE SIZE VARIABLE: (354/159)

Foreign art collection having means to permit the recording of an image and means to change the physical dimensions of a frame.

FOR 807 CAMERA BACK OR FILM CARRIER ANGULARLY ADJUSTABLE: (354/160)

Foreign art collection having means to support a light-sensitive surface or means to cover the rear of a camera wherein either is shiftable with respect to an objective so that the vertical plane of the objective is not parallel to a vertical plane of the light-sensitive surface or means to cover the rear of the camera.

FOR 808 CAMERA FILM AND FOCUSING SCREEN EXCHANGEABLE: (354/161)

Foreign art collection having a focusing surface and plateholder which are removable or detachable so that the surface and the plateholder can be successively brought into the same position relative to the lens.

FOR 809 WITH RANGEFINDER: (354/162)

Foreign art collection having camera structure and means to measure the distance of an object from two fixed stations on the camera.

FOR 810 Rangefinder coupled with focusing: (354/163)

Subject matter under subclass FOR 809 wherein the means to measure the distance is joined to a camera lens and they both are moved simultaneously.

FOR 811 Having parallax correction: (354/164)

Subject matter under subclass FOR 810 including means to correct for the change in position of a scene seen in a viewfinder and that which will actually be photographed by a lens.

FOR 812 Focusing lights: (354/165)

Subject matter under subclass FOR 810 including means for projecting intersecting focusing light rays from a camera.

FOR 813 Having viewfinder: (354/166)

Subject matter under subclass FOR 810 including a viewing device attached to or part of a camera so as to indicate what portion of the view in front of the camera will actually be recorded.

- FOR 814 Having adjustable coupling to compensate for change of camera lens: (354/167)**
Subject matter under subclass FOR 810 including means to shift the means joining the rangefinder and lens to synchronize them.
- FOR 815 Cam means to actuate rangefinder: (354/168)**
Subject matter under subclass FOR 810 wherein the means to move the rangefinder is a surface of fixed points of varying distance from a fixed point which surface is in contact with a follower.
- FOR 816 Lever means to actuate rangefinder: (354/169)**
Subject matter under subclass FOR 810 wherein the means to move the rangefinder is an element which moves accurately about a fulcrum member.
- FOR 817 MOTOR FILM DRIVE (e.g., spring, etc.): (354/170)**
Foreign art collection having camera structure and means to convert energy to produce or impart motion to a light-sensitive material.
- FOR 818 Automatic film advance: (354/171)**
Subject matter under subclass FOR 817 wherein the light-sensitive material is moved upon each actuation of a shutter by automatic mechanism.
- FOR 819 Having spring tension indicator: (354/172)**
Subject matter under subclass FOR 818 including means to indicate to an operator of a camera information pertaining to the operation of a spring motor.
- FOR 820 Having electric motor: (354/173.1)**
Subject matter under subclass FOR 818 in which the automatic mechanism includes an electric motor.
- FOR 821 Having electronic timing: (354/173.11)**
Subject matter under subclass FOR 820 in which the operation of the electric motor is limited and controlled by an electronic circuit having an electronic timing means.
- FOR 822 MAGAZINE CAMERA: (354/174)**
Foreign art collection wherein two or more light sensitive surfaces, herein called "plates", not in the same plane are encased within a camera structure or light-tight receiver attachable thereto and are brought to the exposure position one at a time without opening the receiver to light.
- FOR 823 Rotatable magazine: (354/175)**
Subject matter under subclass FOR 822 wherein the plates are mounted on a turret or drum magazine which is rotatable 360 degrees and which places a new plate in the exposure position upon a predetermined amount of rotation (e.g., a turret may have 2 or more sides with plates mounted on each side and pivoted at its center).
- FOR 824 Hand-changed plate: (354/176)**
Subject matter under subclass FOR 822 wherein a flexible end to the magazine-box or light-guard admits the hand of the operator to the box to permit a change of the plate to be effected by hand guidance of the changing mechanism or by a handhold on the plate.
- FOR 825 Tilting magazine: (354/177)**
Subject matter under subclass FOR 822 wherein the change of the plate from storage to exposure position or vice versa, necessitates vertical tilting or rotating a receiver constituting at least a part of the magazine and itself holding more than one plate in different planes.
- FOR 826 Flexible carrier for plates: (354/178)**
Subject matter under subclass FOR 822 wherein the magazine is characterized by flexible carrier means for transferring the plates between the storage and exposure positions.
- FOR 827 Having tab means: (354/179)**
Subject matter under subclass FOR 826 wherein each sensitized plate has its own carrier with a tab portion for manually pulling the plate around a curved track to or from the exposure area.
- FOR 828 Sliding plate: (354/180)**

- Subject matter under subclass FOR 822 wherein the plate moves in a straight line.
- FOR 829 Sliding and return: (354/181)**
Subject matter under subclass FOR 828 wherein the plates in the receiver are moved in alternate directions from an exposure position and back to the receiver.
- FOR 830 Intermediate exposure chamber: (354/182)**
Subject matter under subclass FOR 828 wherein the plate is moved to an exposure position between two other plate receivers.
- FOR 831 Quarter-turned plate: (354/183)**
Subject matter under subclass FOR 822 including two receivers with plates, the planes of these plates are perpendicular to each other, and means for exposing the plates or transferring them from one receiver to the other.
- FOR 832 Tilting: (354/184)**
Subject matter under subclass FOR 831 wherein the plate transfer from one receiver to the other is effected by swinging the plate upon an axis in or near one of its edges.
- FOR 833 Baseguides: (354/185)**
Subject matter under subclass FOR 832 wherein the plate is guided at its base during movement between its two storage positions.
- FOR 834 Rear plate replaceable: (354/186)**
Subject matter under subclass FOR 822 wherein the plates are removed from one end or face of a receiver and replaced at the other end or back of the same receiver in a plane parallel to their first positions.
- FOR 835 MANUAL CAMERA FOCUSING: (354/195.1)**
Foreign art collection having manually adjustable means for moving lenses of a camera to obtain sharpness of an image on a light sensitive surface and camera structure.
- FOR 836 Diaphragm controlled by focusing: (354/195.11)**
Subject matter under subclass FOR 835 wherein the lens is coupled to a diaphragm so that the diaphragm is set by movement of the lens.
- FOR 837 Plural lenses: (354/195.12)**
Subject matter under subclass FOR 835 having two or more lenses to direct light rays upon a light sensitive surface.
- FOR 838 Having distance indicator: (354/195.13)**
Subject matter under subclass FOR 835 including means to indicate the distance between the camera and the object to be photographed.
- FOR 839 Having viewfinder: (354/199)**
Subject matter under subclass FOR 835 including a viewing device attached to or part of a camera that will show a scene that is to be recorded.
- FOR 840 Including focusing screen: (354/200)**
Subject matter under subclass FOR 839 including a surface upon which the image formed by the lens can be seen.
- FOR 841 And reflector: (354/201)**
Subject matter under subclass FOR 840 including a mirror surface wherein light striking said mirror surface will return back into the medium from which it came and onto said focusing surface or screen.
- FOR 842 CAMERA DETAILS: (354/202)**
Foreign art collection wherein the subject matter relates to miscellaneous structure or particular details adapted for or intended for use with a camera.
- FOR 843 Film-restraining means: (354/203)**
Subject matter under subclass FOR 842 having means to press or hold a film in a plane in which an image formed by a lens is sharp.
- FOR 844 Interlocking film advance and shutter tension or setting: (354/204)**
Subject matter under subclass FOR 842 having means for moving a light-sensitive material wherein the means is coupled with shutter mechanism.
- FOR 845 Focal plane shutter: (354/205)**
Subject matter under subclass FOR 844 wherein a shutter is located near the focal plane of a lens.

- FOR 846 Including film movement limiting means: (354/206)**
Subject matter under subclass FOR 844 having means to limit the light sensitive material to one frame.
- FOR 847 Double exposure prevention: (354/207)**
Subject matter under subclass FOR 842 wherein the camera has some structure or indicator which prevents or warns an operator of double exposure.
- FOR 848 Foldable, collapsible, or extensible camera structure: (354/208)**
Subject matter under subclass FOR 847 including means to effect a reduction in size of a foldable, collapsible, or extensible lens holder from an operative condition to an inoperative condition.
- FOR 849 Having manual override (i.e., permits double exposure): (354/209)**
Subject matter under subclass FOR 847 including means to permit an operator to manually manipulate a shutter actuating means so that a double exposure can be made.
- FOR 850 Plural film type: (354/210)**
Subject matter under subclass FOR 842 wherein the camera structure provides for more than one supply of light sensitive material for recording.
- FOR 851 Film cut-off: (354/211)**
Subject matter under subclass FOR 842 having means for cutting a portion of a light-sensitive material from a strip.
- FOR 852 Film-advancing means: (354/212)**
Subject matter under subclass FOR 842 having means for moving light-sensitive material.
- FOR 853 Having film movement limiting means (i.e., movement stops after one frame):(354/213)**
Subject matter under subclass FOR 852 including means to limit the light-sensitive material advance to one frame.
- FOR 854 Including rewind means: (354/214)**
Subject matter under subclass FOR 852 comprising means to reverse the winding of the light-sensitive material.
- FOR 855 Including film position indicating means: (354/215)**
Subject matter under subclass FOR 852 comprising means to convey information to an operator related to the light sensitive material position with an exposure plane.
- FOR 856 Posterior roll: (354/216)**
Subject matter under subclass FOR 852 having a roll which lies behind the plane upon which an exposure is made.
- FOR 857 Film frame counting or measuring: (354/217)**
Subject matter under subclass FOR 842 comprising means to indicate the number of pictures taken or means to indicate how much sensitive material is used or left to be used.
- FOR 858 Measuring: (354/218)**
Subject matter under subclass FOR 857 including the means to indicate the length of light-sensitive material used or left to be used.
- FOR 859 Viewfinder: (354/219)**
Subject matter under subclass FOR 842 for an attachment to or used as part of a camera that will show a scene that will be included in a frame.
- FOR 860 Pose reflector: (354/220)**
Subject matter under subclass FOR 859 having means for returning a light striking a surface into the medium from which it came so that a person can see a view of himself.
- FOR 861 Parallax correction: (354/221)**
Subject matter under subclass FOR 859 including means to correct for the change in position of a scene seen in a viewfinder and that which will actually be photographed by a lens.
- FOR 862 Selective or adjustable viewfinder field: (354/222)**
Subject matter under subclass FOR 859 having means to permit a person to determine

the areas included on a negative or means to regulate the area on a negative.

FOR 863 Selective or adjustable viewing position: (354/223)

Subject matter under subclass FOR 859 having means to permit angular adjustment of the viewfinder or person to select the angle of viewing.

FOR 864 Having reflector: (354/224)

Subject matter under subclass FOR 859 having means for returning light striking a surface into the medium from which it came.

FOR 865 Plural: (354/225)

Subject matter under subclass FOR 864 having more than one reflector.

FOR 866 Shutter: (354/226)

Subject matter under subclass FOR 842 having means to interrupt the light passing through a lens to a light-sensitive material.

FOR 867 Electro-optical type: (354/227.1)

Subject matter under subclass FOR 866 having optical media that can be changed by the application of an electric or magnetic field.

FOR 868 Having diaphragm: (354/228)

Subject matter under subclass FOR 866 including means to control the amount of light passing through a lens to a light sensitive material.

FOR 869 Plural apertured diaphragm: (354/229)

Subject matter under subclass FOR 868 including more than one opening to control the light.

FOR 870 Shutter and diaphragm formed by the same pivoted or sliding plates: (354/230)

Subject matter under subclass FOR 868 wherein the same means interrupts and controls light passing through a lens to a light sensitive material.

FOR 871 Including coupled shutter and diaphragm: (354/231)

Subject matter under subclass FOR 868 having means to connect the shutter and diaphragm so that a means to adjust one will also adjust the other.

FOR 872 Diaphragm opens for focusing or viewing: (354/232)

Subject matter under subclass FOR 868 having means for moving the blades of a diaphragm to allow the maximum amount of light to pass through for focusing or viewing or means to hold the blades of a diaphragm fully open until the shutter release is actuated.

FOR 873 Having shutter between lens: (354/233)

Subject matter under subclass FOR 866 wherein the shutter is placed between front and rear components of a lens.

FOR 874 Dynamo-electric actuated: (354/234.1)

Subject matter under subclass FOR 866 having means to convert electrical energy to mechanical energy by means of an electromagnet to cause the shutter to actuate.

FOR 875 Single linear solenoid: (354/235.1)

Subject matter under subclass FOR 874 having only one dynamoelectric means which is constrained to move in a straight line.

FOR 876 Plural shutters: (354/236)

Subject matter under subclass FOR 866 having more than one means to interrupt the light.

FOR 877 Having delayed release means: (354/237)

Subject matter under subclass FOR 866 including means to defer for a time the initial actuation of the shutter.

FOR 878 Including electric circuit means: (354/238.1)

Subject matter under subclass FOR 877 wherein the means to delay the shutter release includes an electric system.

FOR 879 Having clocktrain: (354/239)

Subject matter under subclass FOR 877 wherein the means to delay the shutter release includes plural gearing.

FOR 880 Detachable from camera: (354/240)

Subject matter under subclass FOR 879 having means to remove the delay means from the camera.

FOR 881 Curtain or flexible plate type: (354/241)

- Subject matter under subclass FOR 866 wherein the light interrupter means is a resilient or flexible sheet.
- FOR 882 Plural curtains or plates: (354/242)**
Subject matter under subclass FOR 881 having more than one resilient or flexible sheet wherein two resilient or flexible sheets form an opening which passes across a light sensitive material to produce an exposure.
- FOR 883 Curtains width opening: (354/243)**
Subject matter under subclass FOR 882 including means to adjust or control the extent of the opening to produce an exposure.
- FOR 884 More than two rollers: (354/244)**
Subject matter under subclass FOR 883 including three or more supply and take-up spools for storing the curtains or flexible plates.
- FOR 885 Sliding rigid plate: (354/245)**
Subject matter under subclass FOR 866 wherein the light interrupter means is a stiff sheet.
- FOR 886 Plural plates: (354/246)**
Subject matter under subclass FOR 885 having more than one stiff sheet.
- FOR 887 Moves in opposite directions: (354/247)**
Subject matter under subclass FOR 886 wherein one of the stiff sheets slides in a diverse direction with respect to the other sheet.
- FOR 888 Rectilinear reciprocation: (354/248)**
Subject matter under subclass FOR 885 wherein a rigid plate is moved in alternate directions in a straight line.
- FOR 889 Vertical motion: (354/249)**
Subject matter under subclass FOR 888 wherein the rigid plate is moved in a straight line so as to form a right angle with the plane of the horizon.
- FOR 890 Pivoting or rotating blade: (354/250)**
Subject matter under subclass FOR 866 wherein a shutter is mounted for movement in one direction only or is rotatably reciprocated, about a fixed axis.
- FOR 891 Having cocking means: (354/251)**
Subject matter under subclass FOR 890 comprising means to set a shutter actuation means.
- FOR 892 Having brake means: (354/252)**
Subject matter under subclass FOR 890 comprising means to stop a shutter blade after a complete shutter actuation.
- FOR 893 Including aperture cover or lid: (354/253)**
Subject matter under subclass FOR 890 comprising two or more blades to stop light from entering a camera.
- FOR 894 Shutter blade moves continuously from closed to open to closed position: (354/254)**
Subject matter under subclass FOR 890 comprising means for moving a blade with a first aperture in it past a second aperture, e.g., diaphragm, so that the first aperture moves on past the second aperture to close if from light.
- FOR 895 Blade moves in opposite direction on alternate exposures: (354/255)**
Subject matter under subclass FOR 894 wherein the blade with the aperture moves first in one way past the second aperture and then moves back past the second aperture when another picture is taken.
- FOR 896 Having retard means: (354/256)**
Subject matter under subclass FOR 890 having means to hold a shutter fully open for a certain period of time.
- FOR 897 Including pneumatic means: (354/257)**
Subject matter under subclass FOR 896 wherein the means to hold the shutter open is an expansible chamber motor.
- FOR 898 Including electric circuit means: (354/258.1)**
Subject matter under subclass FOR 896 wherein the means to hold a shutter open is a magnet or solenoid that is controlled by electrical components connected together so that an electric current will flow through the components.
- FOR 899 Including gear means: (354/259)**

Subject matter under subclass FOR 896 wherein the means to hold a shutter open is provided with one or more protuberances or grooves which interengage and cooperate with mating protuberances on, or grooves in, another member to form therewith a positive force means.

FOR 900 Including cam means: (354/260)

Subject matter under subclass FOR 896 wherein the means to hold a shutter open is provided with a surface of fixed points of varying distance from a fixed point which surface is in contact with a follower to vary the time the shutter remains open.

FOR 901 Plural oscillating blades: (354/261)

Subject matter under subclass FOR 890 wherein there are two or more blades that are rotatably reciprocated about a fixed axis from an open to a closed position.

FOR 902 Having gear means: (354/262)

Subject matter under subclass FOR 901 having means to actuate the blades which means have plural protuberances which interengage and cooperate with mating protuberances.

FOR 903 Having pneumatic actuator: (354/263)

Subject matter under subclass FOR 901 wherein the blades are moved by gas pressure means.

FOR 904 Symmetrical opening: (354/264)

Subject matter under subclass FOR 901 wherein the blades move in diverse directions from or toward a center and form an aperture which always varies the same from the center.

FOR 905 Opposite movement: (354/265)

Subject matter under subclass FOR 901 wherein one blade moves in one direction while another blade moves in another direction.

FOR 906 Release or actuator means: (354/266)

Subject matter under subclass FOR 866 comprising means to allow a part of a camera structure to operate or means to apply a bias or mechanical advantage to effect movement of a part of a camera structure.

FOR 907 Timing means: (354/267.1)

Subject matter under subclass FOR 906 comprising means to allow a shutter to be open for a predetermined time period.

FOR 908 Having safety lock: (354/268)

Subject matter under subclass FOR 906 comprising means to prevent the shutter actuator from being accidentally actuated.

FOR 909 Cable release: (354/269)

Subject matter under subclass FOR 906 comprising a flexible element for transmission of tension or compression.

FOR 910 Indicator or setting means: (354/289.1)

Subject matter under subclass FOR 842 comprising structure for exhibiting, as by registry or nonregistry of significantly placed indicia, the displacement or the adjusted position of some camera part.

FOR 911 Indicia on lens ring or housing: (354/289.11)

Subject matter under subclass FOR 910 in which the indicator or setting means is in the form of markings on the lens ring or lens housing of the camera.

FOR 912 Having electric circuit means: (354/289.12)

Subject matter under subclass FOR 911 in which the indicator or setting means includes electric circuit means.

FOR 913 CAMERA MOUNTING OR REST: (354/293)

Foreign art collection including structure for maintaining a photographic camera in a fixed position or fixed path of movement with respect to some other body or the earth; or including structure facilitating the holding of the camera by an operator.

FOR 914 Stereo: (354/294)

Subject matter under subclass FOR 913 including means to facilitate the positioning of one or two cameras to effect the recording of plural images that are to give the impression of solidity or relief.

FOR 915 FLUID-TREATING APPARATUS: (354/297)

- Foreign art collection having a device for subjecting light sensitive material to a gas or liquid or to subcombinations not classified elsewhere.
- FOR 916 Photocell controlled: (354/298)**
Subject matter under subclass FOR 915 with a light responsive device which regulates some portion of the fluid treating apparatus.
- FOR 917 And temperature control: (354/299)**
Subject matter under subclass FOR 915 with means for regulating the temperature of the apparatus, fluid or material.
- FOR 918 Gaseous treating: (354/300)**
Subject matter under the subclass FOR 915 wherein the fluid is a gas or vapor.
- FOR 919 Treating superimposed or laminar sheets: (354/301)**
Subject matter under subclass FOR 915 wherein an image-exposed strip is brought into contact with a second strip for fluid treatment.
- FOR 920 Rollers sequentially submerge and press sheet: (354/302)**
Subject matter under subclass FOR 919 including revolving cylinders to immerse at least one of the strips in treating fluid and subsequently squeeze the strips together.
- FOR 921 Having fluid dispensing: (354/303)**
Subject matter under subclass FOR 919 including means for distributing treating fluid to one of the strips.
- FOR 922 Collapsible container: (354/304)**
Subject matter under subclass FOR 921 wherein the distributing means includes a rupturable holder.
- FOR 923 Having fluid reservoir: (354/305)**
Subject matter under subclass FOR 919 including means to store the treating fluid.
- FOR 924 Reversal processing: (354/306)**
Subject matter under subclass FOR 915 with means for reexposing the material with an initial latent image thereon.
- FOR 925 Dark cabinet: (354/307)**
- Subject matter under subclass FOR 915 with a light-excluding case adapted to hold the material while it is being subjected to the fluid subsequent to exposure.
- FOR 926 Hand or body insertion: (354/308)**
Subject matter under subclass FOR 925 wherein the case includes means to admit a portion of an operator's body through flexible lightguards.
- FOR 927 Having ventilation: (354/309)**
Subject matter under subclass FOR 926 including means for circulating air through the case.
- FOR 928 Daylight loading: (354/310)**
Subject matter under subclass FOR 925 having means for introducing the material into the case without the necessity of using a dark room.
- FOR 929 Having film-holding cabinet insertable into developing tank: (354/311)**
Subject matter under subclass FOR 925 including means to support the material in a casing which is insertable into a fluid-treating receptacle.
- FOR 930 Having film support or handling means: (354/312)**
Subject matter under subclass FOR 925 including means to hold the material in position or manipulate the material.
- FOR 931 Roll film handling: (354/313)**
Subject matter under subclass FOR 930 having means for manipulating the material that is wound into a cylindrical mass.
- FOR 932 Having motor driven film winding spool: (354/314)**
Subject matter under subclass FOR 931 including means to convert energy to produce or impart motion to a reel upon which the material is wound.
- FOR 933 Plate film handling means: (354/315)**
Subject matter under subclass FOR 930 wherein the material is relatively inflexible.
- FOR 934 Film immersed and removed: (354/316)**

- Subject matter under subclass FOR 930 wherein the means to manipulate the material effects a dipping action.
- FOR 935 Fluid application to one side only of film: (354/317)**
Subject matter under subclass FOR 915 wherein the device applies the fluid to only a single side of the material.
- FOR 936 By roller or web: (354/318)**
Subject matter under subclass FOR 935 having a revolving cylinder or a belt as the fluid applicator.
- FOR 937 Having film or paper feed: (354/319)**
Subject matter under subclass FOR 915 including means to introduce or withdraw the material into or from a fluid-treating area.
- FOR 938 And film immersed and removed: (354/320)**
Subject matter under subclass FOR 937 with means to dip the material in the fluid.
- FOR 939 Strip type: (354/321)**
Subject matter under subclass FOR 938 wherein the material is relatively long and narrow.
- FOR 940 Plural stations: (354/322)**
Subject matter under subclass FOR 938 wherein there is more than one treating area.
- FOR 941 Single station and plural fluids: (354/323)**
Subject matter under subclass FOR 915 wherein plural diverse fluids are selectively applied to the material and then withdrawn from a single processing area.
- FOR 942 Having fluid circulating means: (354/324)**
Subject matter under subclass FOR 915 including means for introducing and withdrawing the fluid to and from a treatment area.
- FOR 943 And fluid spraying means: (354/325)**
Subject matter under subclass FOR 942 with fluid sprinkling means.
- FOR 944 And plate support means: (354/326)**
- Subject matter under subclass FOR 942 with means to hold relatively rigid material in position for treatment.
- FOR 945 By rocking tray or support: (354/327)**
Subject matter under subclass FOR 942 wherein means effect fluctuation of a fluid vessel or material holder.
- FOR 946 Having fluid-agitating means: (354/328)**
Subject matter under subclass FOR 915 including means within a treating vessel for vibrating the fluid or means to vibrate the vessel or a material holder to produce fluid vibration.
- FOR 947 Rotating carrier: (354/329)**
Subject matter under subclass FOR 946 wherein the means includes a revolving material holder.
- FOR 948 Motor driven: (354/330)**
Subject matter under subclass FOR 947 including means to convert energy to produce or impart motion to the holder.
- FOR 949 Film or print processing vessel: (354/331)**
Subject matter under subclass FOR 915 wherein the device includes a fluid receptacle for the treatment of the material.
- FOR 950 Having interlocking doors: (354/332)**
Subject matter under subclass FOR 949 including treating areas separated by a light-excluding partition and interlinked closures.
- FOR 951 Attachment or accessory: (354/333)**
Subject matter under subclass FOR 949 including a device which may be attached to the receptacle or to a support for the receptacle.
- FOR 952 Visual film scanner: (354/334)**
Subject matter under subclass FOR 951 wherein the attachment device includes means to permit the visual scanning of the material.
- FOR 953 Adjustable film-holding means: (354/335)**
Subject matter under subclass FOR 951 wherein the device includes means to alter the position of a material support.
- FOR 954 Reservoir: (354/336)**

Subject matter under subclass FOR 951 wherein the attachable device is a fluid storage means.

FOR 955 Having film or plate support: (354/337)
Subject matter under subclass FOR 949 including structure to hold the light sensitive material.

FOR 956 Having film-guiding ribs: (354/338)
Subject matter under subclass FOR 949 including passive means to limit a path of movement of the material in order that the material may be supported or stretched during its treatment by a fluid.

FOR 957 Film guide: (354/339)
Subject matter under subclass FOR 915 having passive means to limit a path of movement of the material in order that the material may be supported or stretched during its treatment by a fluid.

FOR 958 Film-holding device: (354/340)
Subject matter under subclass FOR 915 having structure by which the material is lifted, stretched or supported for treatment and wherein the structure is independent of a fluid vessel.

FOR 959 Spool: (354/341)
Subject matter under subclass FOR 958 wherein the structure is cylindrical which usually has a rim or ridge at each end and an axial portion on which or about which the material is placed.

FOR 960 Tensioning means: (354/342)
Subject matter under subclass FOR 958 wherein the structure includes means for stretching the material.

FOR 961 Adjustable means: (354/343)
Subject matter under subclass FOR 958 wherein the structure includes means to permit movement of elements to accommodate material of different sizes.

FOR 962 Retaining means: (354/344)
Subject matter under subclass FOR 958 wherein the structure includes means for restraining the material.

FOR 963 Gripping means: (354/345)

Subject matter under subclass FOR 958 wherein the structure includes means to clamp the material.

FOR 964 Opposed frame-gripping means: (354/346)
Subject matter under subclass FOR 963 wherein the clamping means include elements that act on opposite portions of the material.

FOR 965 Plate: (354/347)
Subject matter under subclass FOR 963 wherein the structure is adapted to clamp relatively rigid material.

FOR 966 RETOUCHING: (354/348)
Foreign art collection having means for improving a photographic surface by adding lines, stipples, etc., mechanically and compounds for preparing the surface to receive the lines or stipple marks.

FOR 967 Stand: (354/349)
Subject matter under subclass FOR 966 having means for holding an article which is to be retouched, usually characterized by an open framework which permits illumination of the under side of the article.

FOR 968 Vibrating: (354/350)
Subject matter under subclass FOR 967 including means to give a vibratory motion to the holder.

FOR 969 BURNISHING: (354/351)
Foreign art collection having means to polish a photographic image by applying to it heat-pressure or friction and such compounds as facilitate these operations.

FOR 970 Rotary machine: (354/352)
Subject matter under subclass FOR 969 having means that move in a circular motion for polishing the photograph.

FOR 971 Internally heated: (354/353)
Subject matter under subclass FOR 970 including means to raise the temperature of a rotary tool.

END