

G03B

Apparatus or arrangements for taking photographs or for projecting or viewing them; Apparatus or arrangements employing analogous [N: , i.e. corresponding,] techniques using waves other than optical waves; Accessories therefor (optical parts of such apparatus G02B; systems for automatic generation of focusing signals for optical elements per se G02B7/28; photosensitive materials or processes for photographic purposes G03C; apparatus for processing exposed photographic materials G03D)

Definition statement

This subclass/group covers:

apparatus or methods for taking photographs using light sensitive film for image capture, apparatus or methods for printing, for projecting or viewing images using film stock, photographic film or slides by optical means, e.g. mounting of optical elements, flashes, and their related controls, e.g. exposure, focus,

(opto-)mechanical motion blur, e.g. anti-shake, cooling, beam shaping;

aspects of apparatus or methods for taking photographs using an electronic image sensor [EIS] for image capture, insofar as they correspond to those of said apparatus or methods for taking photographs using light sensitive film, i.e. insofar not peculiar to the presence or use of the EIS, e.g. mounting of optical elements or flashes, and their related controls insofar they are not peculiar to the presence of the EIS, e.g. exposure, focus, (opto-) mechanical motion blur (anti-shake);

aspects of apparatus or methods for projecting or viewing images using an electronic spatial light modulator [ESLM], insofar as they correspond to those of said apparatus or methods for projecting or viewing images using film stock, photographic film or slides, i.e. insofar as not peculiar to the presence of the ESLM, e.g. mounting of optical elements not peculiar to the presence of the ESLM, and their related controls not peculiar to the presence of the ESLM, e.g. cooling, beam shaping, optical keystone correction;

as far as processes are concerned, only processes characterised by the use or manipulation of apparatus classifiable per se in this subclass;

(opto-)mechanical image enhancement in printers or projectors, e.g. keystone correction;

optical viewfinders;

remote control of cameras and projectors insofar not peculiar to the EIS or ESLM;

optical aspects of camera modules using electronic image sensors and

related constructional details;

constructional aspects of projectors, e.g. cooling, beam shaping, light integrating means not peculiar to the ESLM.

DETAILS

- Details common to at least two of cameras, projectors and printers: [G03B 1/00-G03B 5/00](#)
- Details common to cameras only:
- Exposure, control thereof: [G03B 7/00](#), [G03B 9/00](#)
- Viewfinders, focusing aids: [G03B 13/00](#)
- Filters; constructional details, accessories: [G03B 11/00](#); [G03B 17/00](#)
- Special procedures for taking photographs: [G03B 15/00](#)
- Details common to projectors only: [G03B 21/00](#), [G03B 23/00](#)
- Details common to printers only: [G03B 27/00](#)

APPARATUS

- Cameras: [G03B 19/00](#)
- Projectors, viewers; devices for changing pictures: [G03B 21/00](#), [G03B 23/00](#), [G03B 25/00](#)
- Printing apparatus: [G03B 27/00](#)
- Combinations with other apparatus: [G03B 29/00](#)

SPECIAL TECHNIQUES

- Associated working with sound apparatus: [G03B 31/00](#)
- Colour photography; stereoscopic photography; panoramic photography; high-speed photography: [G03B 33/00](#), [G03B 35/00](#), [G03B 37/00](#), [G03B 39/00](#)
- Other techniques: [G03B 41/00](#)
- Using waves other than optical waves, visualisation: [G03B 42/00](#)

TESTING

- [G03B 43/00](#)

Relationship between large subject matter areas

[H04N](#) relates to pictorial communication and covers processes and apparatus

where the photographic record is obtained in a purely electronic format and the concept of the invention relates to a concept specific to the electronic format.

The printing of a record obtained via the processes or apparatus of subclass [H04N](#) is classified in class B41 if the only chemical processing involved consists in the after-treatment of ink applied to the recording surface, but is classified in subclass [G03B](#) if a latent image is produced.

Photographic processes are covered by subclass [G03B](#) when the process relates to the exposure of the photosensitive medium in order to generate a latent image, i.e. a spatial light distribution on the light sensitive surface of a photosensitive medium.

Subclass [G03C](#) covers photographic materials, e.g. photosensitive films, and [G03D](#) covers the devices that involve a chemical transformation of the photosensitive medium, such that the latent image is transformed into a visible and permanent record, and whereas the transformation of the latent image captured on an electronic image sensor (EIS) into electric signals or a permanent electronic record is covered by [H04N](#).

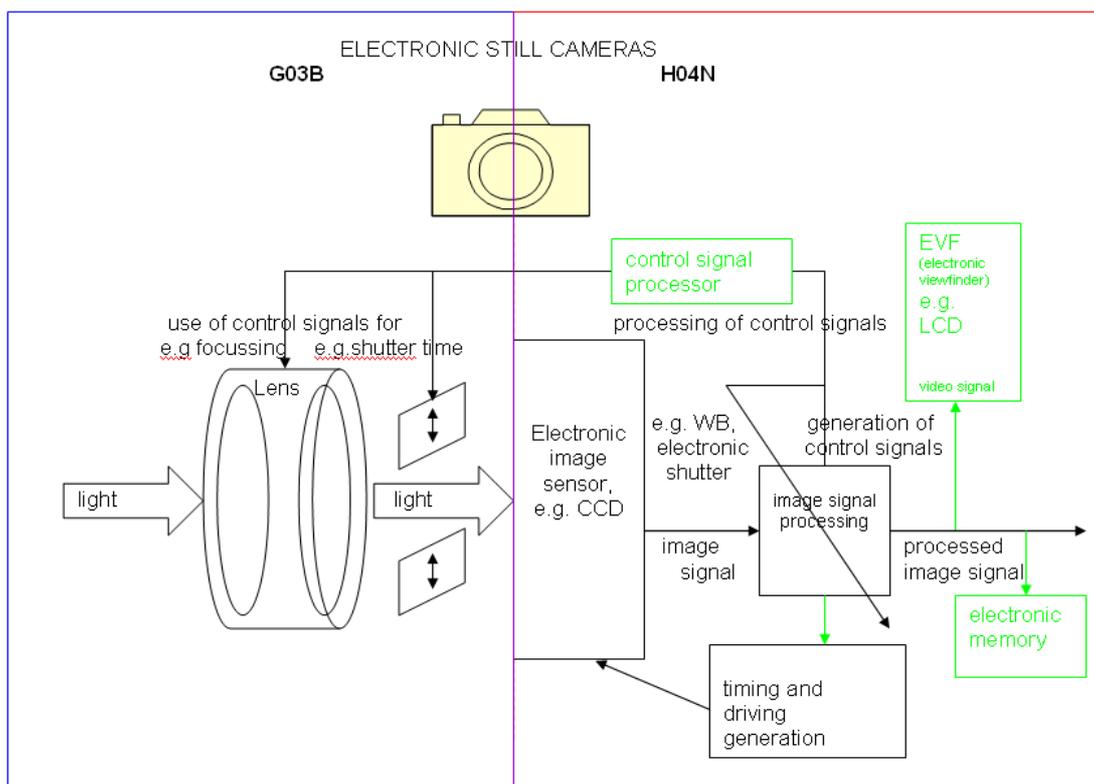
The following aspects of cameras or projectors are covered by [H04N](#):

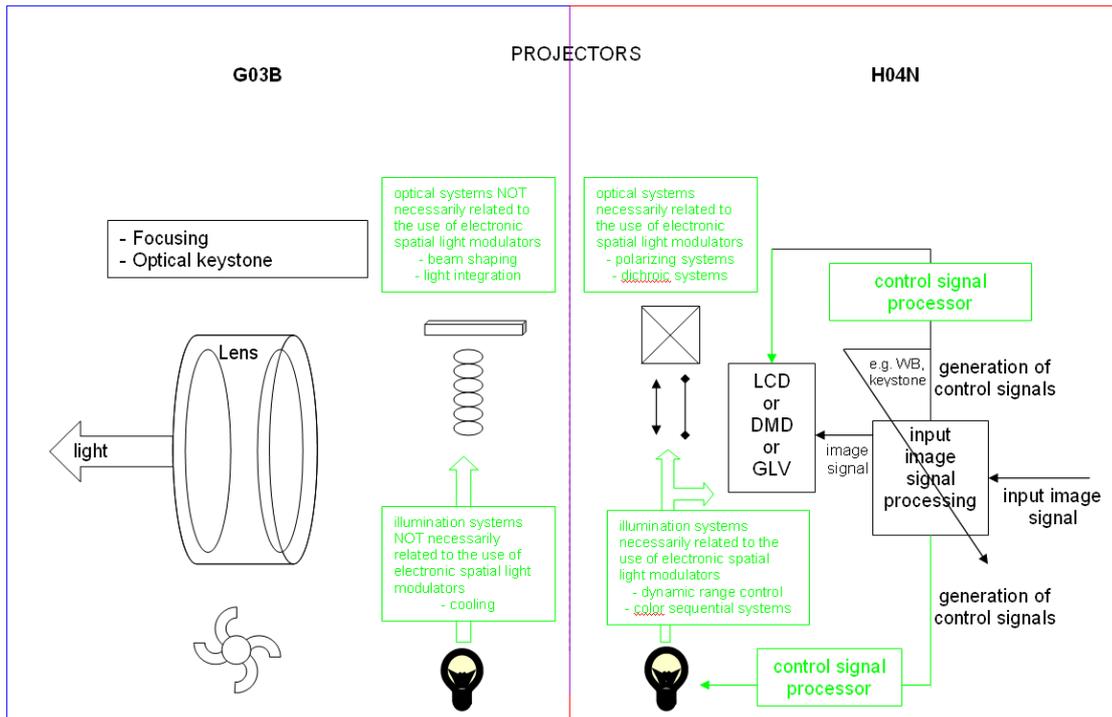
- Aspects of apparatus or methods for image capture peculiar to the presence or use of an electronic image sensor [EIS] or image projection peculiar to the presence or use of an electronic spatial light modulator [ESLM] and their related controls insofar they are peculiar to the presence or use of the EIS or ESLM;
- Processing of electrical image signals from the EIS or provided to the ESLM is covered by [H04N 5/00](#), [H04N 9/00](#);
- Electronic viewfinders [H04N 5/225](#), [H04N 5/232](#), e.g. control of image pickup devices based on information indicated by the electronic viewfinder displaying an image signal generated by the EIS;
- Electrical and mechanical aspects of camera modules using electronic image sensors and related constructional details as in mobile phones or webcams [H04M 1/00](#), [H04N 5/00](#);
- Details of projectors peculiar to the use of an ESLM, e.g. dichroic and polarizing arrangements specially adapted for the ESLM [H04N 9/00](#);
- Remote control of cameras or projectors peculiar to the EIS or the ESLM, e.g. affecting their operation, or based on a generated electrical image signal, [H04N 5/00](#), [H04N 9/00](#);
- Adaptations peculiar to the use of an EIS or ESLM or the display, the transmission, recording or other use of electrical image data and related circuitry, e.g. mounting of EIS or ESLM, integrated cleaning system for the EIS, dust mapping, cooling of the EIS [H04N](#);

- Video cameras, TV cameras, e.g. in studios, CCTV cameras, surveillance cameras and camcorders; Constructional and mechanical details related to such cameras, e.g. housings, even when not peculiar to the presence of an electronic image sensor [EIS] [H04N 5/00](#);

- Systems or apparatus wherein the inventive contribution lies in features covered above, concerning cameras when interacting with those to be covered by [G03B](#), e.g. switch-over between electronic motion-blur correction of electronic viewfinder during focussing and optical motion-blur correction of the lens during exposure, electronic-motion blur correction of the electronic image signal based on output signals of additional sensor, or interaction between mechanical shutter and electronic control of the charge accumulation period of the EIS [H04N](#).

The following schemes are intended to illustrate the relationship between [H04N](#) and [G03B](#)





References relevant to classification in this subclass

This subclass/group does not cover:

Optical parts for apparatus or arrangements for taking photographs or for projecting or viewing them	G02B
Photosensitive materials for photographic purposes	G03C
Apparatus for processing exposed photographic materials; Accessories therefor	G03D
Optical elements or arrangements associated with solid state imager structures;	H01L 27/146
Constructional and mechanical details related to Video cameras, TV cameras (e.g. in studios), CCTV cameras, surveillance cameras and camcorders even when not peculiar to the presence of an electronic image sensor [EIS]	H04N 5/225
Processing or use of electrical image signals from the EIS for the	H04N 5/232 H04N 5/235

generation of camera control signals. e.g. focusing, exposure control, electronic blur correction, display in electronic viewfinder	
EIS-sensor read-out	H04N 5/335

Instruments for performing medical examinations of the interior of cavities or tubes of the body by photographical inspection	A61B 1/00
Objective-type instruments for examining the eyes specially adapted for eye photography	A61B 3/14
Photographic composing devices	B41B 13/00 - B41B 23/00
Photogrammetry; Photographic surveying	G01C 11/00
Recording indications of measuring instruments by photographic means	G01D 9/42
Indicating the weight by photographic recording	G01G 23/35
Photometry using photographic effects	G01J 1/52
Measuring linear or angular speed using photographic means; Measuring differences of linear or angular speeds using photographic means	G01P 3/38
Photographic dosimeters	G01T 1/08
Microscopes arranged for photographic purposes or projection purposes	G02B 21/36
Arrangements for producing a permanent visual presentation of the output data by photographic printing	G06K 15/12

Photographic arrangements structurally combined with the vessel:	
- in vessels common to two or more basic types of discharge tubes or lamps	H01J 5/16
- in cathode-ray tubes or in electron-beam tubes	H01J 29/89
- in discharge tubes with provision for introducing objects or material to be exposed to the discharge	H01J 37/22
Particle spectrometers or separator tubes with detection performed by photographic film	H01J 49/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Photographic exposure meters	G01J 1/00
Adjusting means for lenses adapted for automatic focusing	G02B 7/09
Systems for automatic generation of focusing signals	G02B 7/28
Means for focusing of apparatus for photomechanical production of textured or patterned surfaces	G03F 7/207
Data storage in general	G11B , G11C
Image processing per se	G06T
Transforming light or analogous information into electric image information	H04N 5/30
Transforming X-rays into electric image information	H04N 5/32

Transforming infrared radiation into electric image information	H04N 5/33
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Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Photography	the process of recording pictures by means of capturing light on a light-sensitive medium, e.g. silver halide based chemical or an electronic image sensor. Light patterns reflected or emitted from objects expose such a light sensitive medium during a timed exposure, usually through a photographic lens in a device known as a camera
Camera	a device capturing image information represented by light patterns reflected or emitted from objects, and exposing a light sensitive film or an electronic image sensor during a timed exposure, usually through an optical lens, and producing an image on a light sensitive film or an electrical image information signal respectively
Projector	a device displaying image information by projection of light patterns, usually through an optical lens, wherein the light patterns are generated by illuminating an image, e.g. film or slide, or by converting an electric image signal into an optical signal using an electronic spatial light modulator
EIS	Electronic image sensor: optoelectronic transducer, converting optical image information into an electrical signal susceptible of being processed, stored, transmitted or displayed
Additional sensor	a sensor, other than the electronic

	image sensor, used for controlling a camera
ESLM	Electronic spatial light modulator: optoelectronic transducer converting electric signals representing image information into optical image information
Record	A registration, e.g. of sound or images, in permanent form by optical or electrical means for later reproduction

Synonyms and Keywords

In patent documents the following abbreviations are often used:

AE	Automatic Exposure
AF	Auto Focus
APS	Advanced Photographic System
DEP	Double Exposure Prevention
DSLR	Digital Single Lens Reflex Camera
SLR	Single Lens Reflex Camera
OVF	optical viewfinder
EVF	electronic viewfinder

G03B 1/00

Film strip handling

G03B 1/60

Measuring or indicating length of the used or unused film;
Counting number of exposures (measuring length in general)

G01B)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Measuring length in general	G01B
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G03B 1/66

Counting number of exposures (counting mechanisms per se G06M)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Counting mechanisms per se	G06M
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G03B 3/00

Focusing arrangements (focusing means, autofocus systems for cameras G03B13/00; means for automatic focusing of projectors G03B21/53; means for automatic focusing of projection-printing apparatus or copying cameras G03B27/34, G03F)

References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Means for focusing of cameras	G03B 13/18
Autofocus systems for cameras	G03B 13/32
Means for automatic focusing of projectors or projection-type viewers	G03B 21/53
Means for automatic focusing of photographic printing apparatus or copying cameras	G03B 27/34

G03B 5/00

Adjustment of optical system relative to image or object surface other than for focusing

G03B 7/00

Control of exposure by setting shutters, diaphragms, or filters separately or conjointly (measuring intensity of light G01J; control systems in general G05)

G03B 9/00

Exposure-making shutters; Diaphragms

G03B 9/06

Two or more co-operating pivoted blades e.g. iris type (shutters functioning as diaphragms by limiting extent of opening movement G03B9/08)

References relevant to classification within this group

This subclass/group does not cover:

Shutters functioning as diaphragms by limiting extent of opening movement	G03B 9/08
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G03B 9/08

Shutters (electro-, magneto-, or acousto-optical shutters G02F1/00)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Devices or arrangements for the control of the intensity, colour, phase, polarisation or direction of light arriving from an independent light source	G02F 1/00
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G03B 9/64

Mechanism for delaying opening of shutter (separate from shutter G03B17/38)

References relevant to classification in this group

This subclass/group does not cover:

Mechanism for delaying opening of shutter separate from shutter	G03B 17/38
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G03B 11/00

Filters or other obturators specially adapted for photographic purposes (filters per se G02B)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Optical filters per se	G02B 5/20
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G03B 11/041

[N: Lens caps, as separate accessory (accessories in general G03B17/56)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Accessories in general	G03B 17/56
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G03B 13/00

Viewfinders; Focusing aids for cameras; Means for focusing for cameras; Autofocus systems for cameras (hoods, caps 11/04; reflex camera arrangements G03B19/12, G03B19/14; rangefinders per se G01C3/00; automatic focusing in general G02B7/09; systems for automatic generation of focusing signals G02B7/28)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Optical rangefinders per se	G01C 3/00
Hoods or caps for eliminating unwanted light from lenses, viewfinders, or focusing aids	G03B 11/04
Reflex cameras with single objective and a movable reflector or a partly-transmitting mirror	G03B 19/12
Cameras with paired lenses, one of which forms image on photosensitive material and the other forms a corresponding image on a focusing screen	G03B 19/14

G03B 13/02

Viewfinders

Informative references

Attention is drawn to the following places, which may be of interest for search:

Viewfinders per se	G02B 23/14
Electronic viewfinders	H04N 5/225 , H04N 5/232

G03B 13/12

to compensate for change of camera lens or size of picture

Informative references

Attention is drawn to the following places, which may be of interest for search:

Zoom viewfinders per se	G02B 23/145
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G03B 15/00

Special procedures for taking photographs; Apparatus therefor

G03B 15/04

Combinations of photographic apparatus with non-electronic flash apparatus; Non-electronic flash units; ([N: control of the photographic apparatus according to the flash apparatus characteristics G03B7/16; test apparatus for flash G03B43/00;] light sources using a charge of combustible material F21K5/00; ignition circuits H05B43/02)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Light sources using charges of combustible material	F21K 5/00
Control of exposure in accordance with both the intensity of the flash source and the distance of the flash source from object, e.g. in accordance with "guide number" of flash bulb and the focusing of the camera	G03B 7/16
Testing correct operation of photographic apparatus or parts thereof, e.g. flash apparatus	G03B 43/00
Circuit arrangements for light sources using a charge of combustible material	H05B 43/02

G03B 15/05

Combinations of cameras with electronic flash apparatus; Electronic flash units (discharge lamps per se H01J; circuit arrangements H05B41/00)

Definition statement

This subclass/group covers:

e.g. flash units without mechanical connection to the camera

Informative references

Attention is drawn to the following places, which may be of interest for search:

Discharge lamps	H01J 61/00 - H01J 65/00
Circuit arrangements or apparatus for igniting or operating discharge lamps	H05B 41/00

G03B 15/16

for photographing the track of moving objects (high-speed photography G03B39/00; recording tracks of nuclear particles G01T5/00)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Plates or blocks in which tracks of nuclear particles are made visible by after-treatment, using photographic emulsion	G01T 5/10
High-speed photography	G03B 39/00

G03B 17/00

Details of cameras or camera bodies; Accessories therefor (lens hoods or caps G03B11/04)

References relevant to classification in this group

This subclass/group does not cover:

Lens barriers, covers, shields (for retractable lenses) if not integral part of camera body	G03B 11/04
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G03B 17/04

collapsible, foldable, or extensible, e.g. book-type (bellows for instruments in general G12B)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Hollow bodies having parts which are deformable or displaceable under pressure, e.g. bellows	G12B 1/04
Bellows per se	F16J 3/00

G03B 17/18

Signals indicating condition of a camera member or suitability of light (indicating depth of field G03B13/30)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Indicating depth of field	G03B 13/30
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G03B 17/36

Counting number of exposures (of film strips G03B1/66 counting mechanisms per se G06M)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Counting mechanisms per se	G06M
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G03B 17/48

adapted for combination with other photographic or optical apparatus (with microscopes, with telescopes G02B)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Microscopes	G02B 21/00
Telescopes	G02B 23/00

G03B 17/56

Accessories (camera cases A45C11/38; [N: lens caps G03B11/041; stands or trestles as support for apparatus or articles placed thereon F16M11/00; means for attachment of apparatus allowing quick-release F16M11/041; means for supporting on, or holding steady relative to a person F16M13/04; tripods F16M11/24; tripods with telescopic legs F16M11/32; monopod or tripod having a central telescopic column F16M11/28; heads or undercarriages for supporting an object and allowing movement thereof F16M11/043 to F16M11/14 or F16M11/2007 to F16M11/24])

Definition statement

This subclass/group covers:

external battery compartments, support of camera body

References relevant to classification in this group

This subclass/group does not cover:

Camera cases	A45C 11/38
Lens caps;	G03B 11/041
Stands or trestles as support for apparatus or articles placed thereon	F16M 11/00
Means for attachment of apparatus allowing quick-release	F16M 11/041
Means for supporting on, or holding steady relative to, a person,	F16M 13/04
Tripods	F16M 11/24
Tripods with telescopic legs	F16M 11/32
Monopod or tripod having a central telescopic column	F16M 11/28
Movement that the support can allow for the object to be supported	F16M 11/043 - F16M 11/14 , F16M 11/2007 - F16M 11/24

G03B 19/00

Cameras (details G03B17/00)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Details of cameras or camera bodies;Accessories therefor	G03B 17/00
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G03B 19/10

Plate or cut-film cameras (with provision for alternative use with roll film G03B19/08)

Definition statement

This subclass/group covers:

e.g. cameras with a (movable) ground glass screen.

References relevant to classification in this group

This subclass/group does not cover:

Plate or cut-film cameras with provision for alternative use with roll film	G03B 19/08
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G03B 19/18

Motion-picture cameras (with non-intermittently running film G03B41/02)

References relevant to classification in this group

This subclass/group does not cover:

Motion-picture cameras with non-intermittently running film	G03B 41/02
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G03B 21/00

Projectors or projection-type viewers; Accessories therefor (devices for changing pictures G03B23/00; Zoetropes G03B25/00; photographic printing apparatus G03B27/00; arrangements for obtaining special effects on stages or in circuses or in arenas F21S8/00R4; optical projection comparators G01B9/08; projection microscopes G02B21/36)

References relevant to classification in this group

This subclass/group does not cover:

Optical distortion correction, e.g. keystone	G03B 21/14
Devices for changing pictures	G03B 23/00
Interactive projectors (whiteboards) with input means to control the projection	G06F 3/00
Laser projectors using scanning devices	H04N 9/31L
Projectors peculiar to the use of an electronic spatial light modulator	H04N 5/7475 , H04N 9/3197
Electronic correction of distortions, e.g. video signal processing	H04N 5/7475 , H04N 9/3197

Informative references

Attention is drawn to the following places, which may be of interest for search:

Tables specially adapted to be used with domestic photographic projectors	A47B 37/02
Lighting devices or systems producing a varying lighting effect	F21S 10/00
Optical projection comparators	G01B 9/08
Viewers, other than projection viewers, giving motion-picture effects by persistence of vision, e.g. zoetrope	G03B 25/00

Photographic printing apparatus	G03B 27/00
Television systems' projection arrangements for image reproduction	H04N 5/74

G03B 21/10

Projectors with built-in or built-on screen (projection screens in general G03B21/56)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Projection screens	G03B 21/56
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G03B 21/20

Lamp houses (condensers per se G02B) G03B21/22

Informative references

Attention is drawn to the following places, which may be of interest for search:

Condensers	G02B 19/00
Microscope condensers	G02B 21/08

G03B 21/323

[N: Cassettes (G03B21/326 , G03B21/328 take precedence; for containing light-sensitive material G03B17/265)];

References relevant to classification in this group

This subclass/group does not cover:

Means for fixing the film on the axis of a reel or spindle	G03B 21/326
Means for fixing the film on the periphery of a reel	G03B 21/328

Informative references

Attention is drawn to the following places, which may be of interest for search:

Holders for containing light sensitive material and adapted to be inserted within the camera, e.g. cassettes specially adapted for motion picture film	G03B 17/265
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G03B 21/44

**Mechanisms transmitting motion to film-strip feed;
Mechanical linking of shutter and intermittent feed (film-strip per se G03B1/00)**

Informative references

Attention is drawn to the following places, which may be of interest for search:

Film-strip handling of general interest for cameras, projectors or printers	G03B 1/00
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G03B 21/50

**Control devices operated by the film strip during the run;
(controlling or regulating speed G03B21/48)**

Informative references

Attention is drawn to the following places, which may be of interest for search:

Mechanical linking of shutter and intermittent feed for altering frame speed or regulating constancy of film speed	G03B 21/48
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G03B 23/00

Devices for changing pictures in viewing apparatus or projectors (film-strip handling G03B1/00; direct viewers per se

G02B)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Film-strip handling of general interest for cameras, projectors or printers	G03B 1/00
Telescopes, e.g. binoculars; Periscopes; Instruments for viewing the inside of hollow bodies	G02B 23/00
Viewing or reading apparatus	G02B 27/02

G03B 25/00

Viewers, other than projection viewers, giving motion-picture effects by persistence of vision, e.g. zoetrope (high-speed photography G03B39/00)

Informative references

Attention is drawn to the following places, which may be of interest for search:

High-speed photography	G03B 39/00
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G03B 27/00

Photographic printing apparatus (film-strip handling G03B1/00)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Film-strip handling of general interest for cameras, projectors or printers	G03B 1/00
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G03B 27/16

Illumination arrangements, e.g. positioning of lamps, positioning of reflectors (controlling the exposure G03B27/72)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Controlling or varying light intensity, spectral composition, or exposure time in photographic printing apparatus	G03D 27/72
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G03B 27/30

adapted to be combined with processing apparatus
(processing apparatus per se G03D)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Processing apparatus per se	G03D
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G03B 27/303

[N: Gas processing (gas processing apparatus G03D7/00)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Gas processing apparatus	G03D 7/00
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G03B 27/306

[N: Heat development (heat development apparatus G03D13/002)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Heat development apparatus	G03D 13/002
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G03B 27/50

with slit or like diaphragm moving over original for progressive exposure (G03B27/34 takes precedence; [N: projection optics per se G03B27/525])

References relevant to classification in this group

This subclass/group does not cover:

Means for automatic focusing for projection printing apparatus	G03B 27/34
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Projection optics for slit exposure	G03B 27/525
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G03B 27/521

[N: Arrangements for applying a supplementary information onto the sensitive material, e.g. coding (producing marks on the film in cameras G03B17/24)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Producing marks on the film in cameras	G03B 17/24
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G03B 27/522

[N: Projection optics (for electro-photographic copiers in particular G03G15/04)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Projection optics for electro-photographic copiers	G03G 15/04
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G03B 27/53

Automatic registration or positioning of originals with respect to each other or the photosensitive layer (within photo-mechanical production of textured or patterned surfaces, e.g. of integrated circuits, G03F9/00)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Registration or positioning of originals, masks, frames, photographic sheets or textured or patterned surfaces in photo-mechanical production of textured or patterned surfaces, e.g. of integrated circuits	G03F 9/00
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G03B 27/54

Lamp housings; Illuminating means (controlling the exposure G03B27/72)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Controlling or varying light intensity, spectral composition, or exposure time in photographic printing apparatus	G03B 27/72
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G03B 27/58

Baseboards, masking frames, or other holders for the sensitive material (G03B27/53 takes precedence; [N: for electrophotographic copiers G03G15/00G])

References relevant to classification in this group

This subclass/group does not cover:

Automatic registration or positioning of originals with respect to each other or the photosensitive layer	G03B 27/53
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Apparatus relating to the handling of copy material for electrographic processes using a charge pattern	G03G 15/00G
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G03B 27/62

HOLDERS for the original (G03B27/53 takes precedence; [N: for electrophotographic copiers G03G15/00F])

References relevant to classification in this group

This subclass/group does not cover:

Automatic registration or positioning of originals with respect to each other or the photosensitive layer	G03B 27/53
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Apparatus relating to the handling of originals for electrographic processes using a charge pattern	G03G 15/00F
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G03B 27/72

Controlling or varying light intensity, spectral composition, or exposure time in photographic printing apparatus (exposure meters per se G01J; control of light intensity in general G05D25/00)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Exposure meters per se	G01J
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Control of light, e.g. intensity, colour, phase	G05D 25/00
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G03B 29/00

Combinations of cameras, projectors, or photographic printing apparatus with non-photographic non-optical apparatus, e.g. clocks, weapons; Cameras having the shape of other objects (combinations with flash apparatus G03B15/03; combinations with instruments for medical examination A61B1/00, A61B3/14; combinations with surveying instruments G01C11/00; combinations with core or moderator structure of nuclear reactors G21C17/08; structural combinations with electric discharge tubes H01J5/16, H01J29/89, H01J37/22)

References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Instruments for performing medical examinations of the interior of cavities or tubes of the body by visual or photographic inspection, e.g. endoscopes	A61B 1/00
Theodolites combined with cameras	G01C 1/04
Arrangements specially adapted for eye photography	A61B 3/14
Structural combination of reactor core or moderator structure with viewing means, e.g. with television camera, periscope, window	G21C 17/08
Optical or photographic arrangements structurally combined with the vessel	H01J 5/16
Optical or photographic arrangements structurally combined	H01J 29/89

Optical or photographic arrangements associated with the tube	H01J 37/22
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Time-pieces combined with other articles which do not interfere with the running or time-keeping of the time-piece	G04B 47/00
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G03B 31/00

Associated working of cameras or projectors with sound recording or reproducing means (record carriers characterised by the selection of the material and comprising cinematographic film and magnetic track G11B5/633)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Cinematographic processes of taking pictures or printing combined with sound-recording	G03C 5/14
Record carriers characterised by the selection of the material and comprising cinematographic film or slide with integral magnetic track	G11B 5/633

G03B 33/00

Colour photography, other than mere exposure or projection of a colour film (printing apparatus G03B27/00; stereoscopic colour photography G03B35/00)

References relevant to classification in this group

This subclass/group does not cover:

Stereoscopic colour photography	G03B 35/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Printing apparatus	G03F 35/00
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G03B 33/14

using lenticular screens (integral with film G03C)

References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Colour photography using lenticular screens integral with film	G03C
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G03B 33/16

using colour-pattern screens (integral with film G03C)

References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Colour photography using lenticular screens integral with film	G03C
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G03B 35/00

Stereoscopic photography (panoramic or widescreen systems G03B37/00; photogrammetry G01C)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Photogrammetry	G01C
Panoramic or wide-screen photography	G03B 37/00

G03B 37/00

Panoramic or wide-screen photography; photographing extended surfaces, e.g. for surveying; Photographing internal surfaces, e.g. of pipe

G03B 37/005

[N: Photographing internal surfaces, e.g. of pipe, (G03B37/02 to G03B37/06 take precedence; Instruments for performing medical examinations of cavities or tubes of the body by photographic inspection A61B1/00)]

References relevant to classification in this group

This subclass/group does not cover:

Automatic registration or positioning of originals with respect to each other or the photosensitive layer	G03B 27/53
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Instruments for performing medical examinations of the interior of cavities or tubes of the body by visual or photographic inspection, e.g. endoscopes	A61B 1/00
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G03B 39/00

High-speed photography

G03B 41/00

Special techniques not covered by groups G03B31/00 to G03B39/00; Apparatus therefor

References relevant to classification in this group

This subclass/group does not cover:

Associated working of cameras or projectors with sound-recording or -reproducing means	G03B 31/00
Colour photography, other than mere exposure or projection of a colour film	G03B 33/00
Stereoscopic photography	G03B 35/00
Panoramic or wide-screen photography; Photographing extended surfaces, e.g. for surveying; Photographing internal surfaces, e.g. of pipe	G03B 37/00
High-speed photography	G03B 39/00

G03B 42/00

Obtaining records using waves other than optical waves; Visualisation of such records by using optical means (investigating or analysing materials using electromagnetic or sonic waves G01N; using radar, sonar or analogous techniques G01S; [N: holography G03H])

Informative references

Attention is drawn to the following places, which may be of interest for search:

Investigating or analysing materials using electromagnetic radiation, other than infrared, visible or ultraviolet radiation, e.g. microwaves, or particles	G01N 22/00 , G01N 23/00
Investigating or analysing materials by the use of ultrasonic, sonic or infrasonic waves; Visualisation of the interior of objects by transmitting ultrasonic or sonic waves through the	G01N 29/00

object	
Radar or analogous systems specially adapted for mapping or imaging	G01S 13/89
Sonar systems specially adapted for mapping or imaging	G01S 15/89
Holography	G03H

G03B 42/02

using X-rays (measurement of X-radiation G01T; X-ray apparatus, circuits therefor H05G1/00)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Measurement of nuclear or X-radiation	G01T
X-ray apparatus involving X-ray tubes; Circuits therefor	H05G 1/00

G03B 42/021

[N: Apparatus for direct X-ray cinematography (circuit arrangements for obtaining a series of X-ray photographs or for X-ray cinematography H05G1/60)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Circuit arrangements for obtaining a series of X-ray photographs or for X-ray cinematography	H05G 1/60
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G03B 42/023

[N: Apparatus for indirect X-ray cinematography i.e. by taking

pictures on ordinary film from the images on the fluorescent screen (by transforming the picture information intermediately into electrical signals G03B27/725)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Controlling or varying light intensity in photographic printing apparatus by transforming the picture information intermediately into electrical signals	G03B 27/725
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G03B 42/042

[N: for dental applications (Apparatus for radiation diagnosis, applications or adaptations for dentistry A61B6/14; individual packages for X-ray film G03C3/003)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Apparatus for radiation diagnosis, applications or adaptations for dentistry	A61B 6/14
Individual packages for X-ray film, e.g. for dental applications	G03C 3/003

G03B 42/06

using ultrasonic, sonic or infrasonic waves (measurement of ultrasonic, sonic or infrasonic waves G01H)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Measurement of ultrasonic, sonic or infrasonic waves	G01H
Diagnosis using ultrasonic, sonic or infrasonic waves	A61B 8/00

G03B 42/08

Visualising the records by optical means (optical means using spatial filters G02B27/46; optical systems for visualising phase objects G02B27/50)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Diffraction optics systems using spatial filters;	G02B 27/46
Optics for phase object visualising	G02B 27/50

G03B 43/00

Testing correct operation of photographic apparatus or parts thereof (measuring specific variables G01)

G03B 43/02

Testing shutters (measuring time intervals G04F)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Time-interval measuring	G04F
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