Symbol	Typ	Titel
G	**Sektion**	**SECTION G — PHYSICS**
G03	**Klasse**	**PHOTOGRAPHY; CINEMATOGRAPHY; ANALOGOUS TECHNIQUES USING WAVES OTHER THAN OPTICAL WAVES; ELECTROGRAPHY; HOLOGRAPHY (reproduction of pictures or patterns by scanning and converting into electrical signals H04N) [4]**
G03B	**Unterklasse**	**APPARATUS OR ARRANGEMENTS FOR TAKING PHOTOGRAPHS OR FOR PROJECTING OR VIEWING THEM; APPARATUS OR ARRANGEMENTS EMPLOYING ANALOGOUS TECHNIQUES USING WAVES OTHER THAN OPTICAL WAVES; ACCESSORIES THEREFOR (optical parts of such apparatus G02B; photosensitive materials or processes for photographic purposes G03C; apparatus for processing exposed photographic materials G03D) [4]** **Details common to at least two of the following types of apparatus: cameras, projectors, printers (details common to cameras only G03B 7/00-G03B 17/00, to projectors only G03B 21/00, G03B 23/00, to printers only G03B 27/00)**
G03B 1/00	**Hauptgruppe**	**Film-strip handling**
G03B 1/02	1-Punkt Untergruppe	. Moving film strip by pull on end thereof
G03B 1/04	2-Punkt Untergruppe	. . Pull exerted by take-up spool
G03B 1/06	3-Punkt Untergruppe	. . . rotated by lever-operated ratchet and pawl
G03B 1/08	3-Punkt Untergruppe	. . . rotated by band, chain, rack, or other linear reciprocating operation
G03B 1/10	3-Punkt Untergruppe	. . . rotated by knob through gearing
G03B 1/12	3-Punkt Untergruppe	. . . rotated by motor, e.g. spring
G03B 1/14	2-Punkt Untergruppe	. . Special arrangements to ensure constant length of movement of film
G03B 1/16	3-Punkt Untergruppe	. . . by film-arresting pins
G03B 1/18	1-Punkt Untergruppe	. Moving film strip by means which act on the film between the ends thereof
G03B 1/20	2-Punkt Untergruppe	. . Acting means
G03B 1/22	3-Punkt Untergruppe	. . . Claws or pins engaging holes in the film
G03B 1/24	3-Punkt Untergruppe	. . . Sprockets engaging holes in the film
G03B 1/26	3-Punkt Untergruppe	. . . Spiked wheels or pins not penetrating the film
G03B 1/28	3-Punkt Untergruppe	. . . Shuttle feed
G03B 1/30	3-Punkt Untergruppe	. . . Belt feed
G03B 1/32	3-Punkt Untergruppe	. . . Friction grippers or rollers
G03B 1/34	3-Punkt Untergruppe	. . . Beaters
G03B 1/36	3-Punkt Untergruppe	. . . Pneumatic acting means
G03B 1/38	2-Punkt Untergruppe	. . embodying Geneva motion, e.g. Maltese-cross gearing
G03B 1/40	1-Punkt Untergruppe	. embodying frictional coupling or clutches
G03B 1/42	1-Punkt Untergruppe	. Guiding, framing, or constraining film in desired position relative to lens system
G03B 1/44	2-Punkt Untergruppe	. . Guides engaging edge of film (gates G03B 1/48)

Symbol	Typ	Titel
G03B 1/46	2-Punkt Untergruppe	. . Rollers engaging face of film, e.g. barrel, waisted, conical (gates G03B 1/48)
G03B 1/48	2-Punkt Untergruppe	. . Gates or pressure devices, e.g. plate
G03B 1/50	3-Punkt Untergruppe	. . . adjustable or interchangeable, e.g. for different film widths
G03B 1/52	3-Punkt Untergruppe	. . . Pneumatic pressure devices
G03B 1/54	2-Punkt Untergruppe	. . Tensioning or loop-maintaining devices
G03B 1/56	1-Punkt Untergruppe	. Threading; Loop forming
G03B 1/58	2-Punkt Untergruppe	. . automatic
G03B 1/60	1-Punkt Untergruppe	. Measuring or indicating length of the used or unused film; Counting number of exposures (measuring length in general G01B)
G03B 1/62	2-Punkt Untergruppe	. . involving locking or stop-motion devices
G03B 1/64	2-Punkt Untergruppe	. . by means which ascertain the radius of the film coiled on a spool
G03B 1/66	2-Punkt Untergruppe	. . Counting number of exposures (counting mechanisms per seG06M)
G03B 3/00	**Hauptgruppe**	**Focusing arrangements (focusing means, autofocus systems for cameras G03B 13/00; means for automatic focusing of projectors G03B 21/53; means for automatic focusing of projection-printing apparatus or copying cameras G03B 27/34, G03F)**
G03B 3/02	1-Punkt Untergruppe	. moving lens along baseboard
G03B 3/04	1-Punkt Untergruppe	. adjusting position of image plane without moving lens
G03B 3/06	2-Punkt Untergruppe	. . using movable reflectors to alter length of light-path
G03B 3/10	1-Punkt Untergruppe	. Power-operated focusing
G03B 3/12	2-Punkt Untergruppe	. . adapted for remote control (control systems in general G05)
G03B 5/00	**Hauptgruppe**	**Adjustment of optical system relative to image or object surface other than for focusing**
G03B 5/02	1-Punkt Untergruppe	. Lateral adjustment of lens
G03B 5/04	1-Punkt Untergruppe	. Vertical adjustment of lens; Rising fronts
G03B 5/06	1-Punkt Untergruppe	. Swinging lens about normal to the optical axis
G03B 5/08	1-Punkt Untergruppe	. Swing backs
		Details common to cameras
G03B 7/00	**Hauptgruppe**	**Control of exposure by setting shutters, diaphragms, or filters separately or conjointly (measuring intensity of light G01J; control of exposure in television cameras by means of circuitry for compensating for variation in the brightness of the object H04N 5/235)**
G03B 7/02	1-Punkt Untergruppe	. Control effected by setting a graduated member on the camera in accordance with indication or reading afforded by a light meter, which may be either separate from, or built into, camera body
G03B 7/04	1-Punkt Untergruppe	. Control effected by hand adjustment of a member that senses indication of a pointer of a built-in light-sensitive device, e.g. by restoring pointer to a fixed associated reference mark
G03B 7/06	2-Punkt Untergruppe	. . by a follow-up movement of an associated reference mark to the pointer
G03B 7/08	1-Punkt Untergruppe	. Control effected solely by response to built-in light-sensitive device to the intensity of light received by the camera
G03B 7/081	2-Punkt Untergruppe	. . Analogue circuits [3]

Symbol	Typ	Titel
G03B 7/083	3-Punkt Untergruppe	. . . for control of exposure time [3]
G03B 7/085	3-Punkt Untergruppe	. . . for control of aperture [3]
G03B 7/087	3-Punkt Untergruppe	. . . for control of both exposure time and aperture [3]
G03B 7/089	3-Punkt Untergruppe	. . . for storage of exposure value in mirror reflex cameras [3]
G03B 7/091	2-Punkt Untergruppe	. . Digital circuits [3]
G03B 7/093	3-Punkt Untergruppe	. . . for control of exposure time [3]
G03B 7/095	3-Punkt Untergruppe	. . . for control of aperture [3]
G03B 7/097	3-Punkt Untergruppe	. . . for control of both exposure time and aperture [3]
G03B 7/099	2-Punkt Untergruppe	. . Arrangement of photoelectric elements in or on the camera [3]
G03B 7/10	2-Punkt Untergruppe	. . a servo-motor providing energy to move the setting member
G03B 7/12	2-Punkt Untergruppe	. . a hand-actuated member moved from one position to another providing the energy to move the setting member, e.g. depression of shutter release button causes a stepped feeler to co-operate with the pointer of the light-sensitive device to set the diaphragm and thereafter release the shutter
G03B 7/14	3-Punkt Untergruppe	. . . setting of both shutter and diaphragm aperture being effected so as to give the optimum compromise between depth of field and shortness of exposure
G03B 7/16	1-Punkt Untergruppe	. 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 7/18	1-Punkt Untergruppe	. in accordance with light-reducing "factor" of filter or other obturator used with or on the lens of the camera
G03B 7/20	1-Punkt Untergruppe	. in accordance with change of lens
G03B 7/22	1-Punkt Untergruppe	. in accordance with temperature or height, e.g. in aircraft
G03B 7/24	1-Punkt Untergruppe	. automatically in accordance with markings or other means indicating film speed or kind of film on the magazine to be inserted in the camera [3]
G03B 7/26	1-Punkt Untergruppe	. Power supplies; Circuitry or arrangement to switch on the power source; Circuitry to check the power source voltage [3]
G03B 7/28	1-Punkt Untergruppe	. Circuitry to measure or to take account of the object contrast [3]
G03B 9/00	**Hauptgruppe**	**Exposure-making shutters; Diaphragms**
G03B 9/02	1-Punkt Untergruppe	. Diaphragms [2]
G03B 9/04	2-Punkt Untergruppe	. . Single movable plate with two or more apertures of graded size, e.g. sliding plate, pivoting plate
G03B 9/06	2-Punkt Untergruppe	. . Two or more co-operating pivoted blades e.g. iris type (shutters functioning as diaphragms by limiting extent of opening movement G03B 9/08)
G03B 9/07	2-Punkt Untergruppe	. . with means for presetting the diaphragm
G03B 9/08	1-Punkt Untergruppe	. Shutters (electro-, magneto-, or acousto-optical shutters G02F 1/00) [2]
G03B 9/10	2-Punkt Untergruppe	. . Blade or disc rotating or pivoting about axis normal to its plane
G03B 9/12	3-Punkt Untergruppe	. . . Two relatively-adjustable aperture-defining members moving as a unit
G03B 9/14	3-Punkt Untergruppe	. . . Two separate members moving in opposite directions
G03B 9/16	3-Punkt Untergruppe	. . . Two separate members moving in the same direction

Symbol	Typ	Titel
G03B 9/18	3-Punkt Untergruppe	. . . More than two members
G03B 9/20	4-Punkt Untergruppe	. . . . each moving in a single direction first to open and then to reclose
G03B 9/22	4-Punkt Untergruppe	. . . . each moving in one direction to open and then in opposite direction to close, e.g. iris type
G03B 9/24	3-Punkt Untergruppe	. . . Adjusting size of aperture formed by members when fully open so as to constitute a virtual diaphragm that is adjustable
G03B 9/26	3-Punkt Untergruppe	. . . incorporating cover blade or blades
G03B 9/28	2-Punkt Untergruppe	. . Roller blind or flexible plate
G03B 9/30	3-Punkt Untergruppe	. . . Single blind with multiple slots or other aperture
G03B 9/32	3-Punkt Untergruppe	. . . Double blind
G03B 9/34	4-Punkt Untergruppe	. . . . with adjustable slot; with mechanism controlling relative movement of blinds to form slot
G03B 9/36	2-Punkt Untergruppe	. . Sliding rigid plate
G03B 9/38	3-Punkt Untergruppe	. . . Single rigid plate with multiple slots or other apertures
G03B 9/40	3-Punkt Untergruppe	. . . Double plate
G03B 9/42	4-Punkt Untergruppe	. . . . with adjustable slot; with mechanism controlling relative movement of plates to form slot
G03B 9/44	3-Punkt Untergruppe	. . . Curved track and plate
G03B 9/46	2-Punkt Untergruppe	. . Flap shutters pivoting about axis in plane of flap
G03B 9/48	3-Punkt Untergruppe	. . . Double flap
G03B 9/50	3-Punkt Untergruppe	. . . Louvre type
G03B 9/52	2-Punkt Untergruppe	. . Barrel shutters
G03B 9/54	2-Punkt Untergruppe	. . Conical shutters; Rotating plate with axis of rotation inclined to optical axis of shutter
G03B 9/58	1-Punkt Untergruppe	. Means for varying duration of "open" period of shutter
G03B 9/60	2-Punkt Untergruppe	. . by varying speed of movement of obturating members
G03B 9/62	2-Punkt Untergruppe	. . by varying interval of time between end of opening movement and beginning of closing movement
G03B 9/64	1-Punkt Untergruppe	. Mechanism for delaying opening of shutter (separate from shutter G03B 17/38)
G03B 9/66	1-Punkt Untergruppe	. Means for cocking shutter separate from means for releasing shutter
G03B 9/68	2-Punkt Untergruppe	. . Cocking effected by movement of film
G03B 9/70	1-Punkt Untergruppe	. with flash-synchronising contacts
G03B 11/00	**Hauptgruppe**	**Filters or other obturators specially adapted for photographic purposes (filters per seG02B)**
G03B 11/02	1-Punkt Untergruppe	. Sky masks
G03B 11/04	1-Punkt Untergruppe	. Hoods or caps for eliminating unwanted light from lenses, viewfinders, or focusing aids
G03B 11/06	2-Punkt Untergruppe	. . Lens caps for exposure making
G03B 13/00	**Hauptgruppe**	**Viewfinders; Focusing aids for cameras; Means for focusing for cameras; Autofocus systems for cameras (hoods, caps G03B 11/04; reflex camera arrangements G03B 19/12, G03B 19/14; rangefinders**

Symbol	Typ	Titel
		per seG01C 3/00; automatic focusing in general G02B 7/09; systems for automatic generation of focusing signals G02B 7/28) [5]
G03B 13/02	1-Punkt Untergruppe	. Viewfinders
G03B 13/04	2-Punkt Untergruppe	. . of direct-vision type, e.g. frame, sighting mark
G03B 13/06	2-Punkt Untergruppe	. . with lenses with or without reflectors
G03B 13/08	3-Punkt Untergruppe	. . . with reflected image of frame
G03B 13/10	2-Punkt Untergruppe	. . adjusting viewfinder field
G03B 13/12	3-Punkt Untergruppe	. . . to compensate for change of camera lens or size of picture
G03B 13/14	3-Punkt Untergruppe	. . . to compensate for parallax due to short range
G03B 13/16	2-Punkt Untergruppe	. . combined with focusing aids
G03B 13/18	1-Punkt Untergruppe	. Focusing aids
G03B 13/20	2-Punkt Untergruppe	. . Rangefinders coupled with focusing arrangements, e.g. adjustment of rangefinder automatically focusing camera
G03B 13/22	3-Punkt Untergruppe	. . . coupling providing for compensation upon change of camera lens
G03B 13/24	2-Punkt Untergruppe	. . Focusing screens
G03B 13/26	3-Punkt Untergruppe	. . . with magnifiers for inspecting image formed on screen
G03B 13/28	3-Punkt Untergruppe	. . . Image-splitting devices
G03B 13/30	2-Punkt Untergruppe	. . indicating depth of field [5]
G03B 13/32	1-Punkt Untergruppe	. Means for focusing [5]
G03B 13/34	2-Punkt Untergruppe	. . Power focusing [5]
G03B 13/36	3-Punkt Untergruppe	. . . Autofocus systems [5]
G03B 15/00	**Hauptgruppe**	**Special procedures for taking photographs; Apparatus therefor**
G03B 15/02	1-Punkt Untergruppe	. Illuminating scene
G03B 15/03	2-Punkt Untergruppe	. . Combinations of cameras with lighting apparatus; Flash units
G03B 15/035	3-Punkt Untergruppe	. . . Combinations of cameras with incandescent lamps
G03B 15/04	3-Punkt Untergruppe	. . . Combinations of cameras with non-electronic flash apparatus; Non-electronic flash units (light sources using a charge of combustible material F21K 5/00; ignition circuits H05B 43/02)
G03B 15/05	3-Punkt Untergruppe	. . . Combinations of cameras with electronic flash apparatus; Electronic flash units (discharge lamps per se H01J; circuit arrangements H05B 41/00)
G03B 15/06	2-Punkt Untergruppe	. . Special arrangements of screening, diffusing, or reflecting devices, e.g. in studio
G03B 15/07	3-Punkt Untergruppe	. . . Arrangements of lamps in studios
G03B 15/08	1-Punkt Untergruppe	. Trick photography
G03B 15/10	2-Punkt Untergruppe	. . using back-projection, i.e. blending artificial background with real foreground
G03B 15/12	2-Punkt Untergruppe	. . using mirrors

Symbol	Typ	Titel
G03B 15/14	1-Punkt Untergruppe	. for taking photographs during medical operations
G03B 15/16	1-Punkt Untergruppe	. for photographing the track of moving objects (high-speed photography G03B 39/00; recording tracks of nuclear particles G01T 5/00)
G03B 17/00	**Hauptgruppe**	**Details of cameras or camera bodies; Accessories therefor (lens hoods or caps G03B 11/04)**
G03B 17/02	1-Punkt Untergruppe	. Bodies
G03B 17/04	2-Punkt Untergruppe	. . collapsible, foldable, or extensible, e.g. book type (bellows for instruments in general G12B)
G03B 17/06	2-Punkt Untergruppe	. . with exposure meters or other indicators built into body but not connected to other camera members
G03B 17/08	2-Punkt Untergruppe	. . Waterproof bodies or housings
G03B 17/10	2-Punkt Untergruppe	. . Soundproof bodies
G03B 17/12	2-Punkt Untergruppe	. . with means for supporting objectives, supplementary lenses, filters, masks, or turrets
G03B 17/14	3-Punkt Untergruppe	. . . interchangeably
G03B 17/16	2-Punkt Untergruppe	. . for containing both motion-picture camera and still-picture camera
G03B 17/17	2-Punkt Untergruppe	. . with reflectors arranged in beam forming the photographic image, e.g. for reducing dimensions of camera
G03B 17/18	1-Punkt Untergruppe	. Signals indicating condition of a camera member or suitability of light (indicating depth of field G03B 13/30)
G03B 17/20	2-Punkt Untergruppe	. . visible in viewfinder
G03B 17/22	1-Punkt Untergruppe	. with means for cutting-off film
G03B 17/24	1-Punkt Untergruppe	. with means for separately producing marks on the film, e.g. title, time of exposure
G03B 17/26	1-Punkt Untergruppe	. Holders for containing light-sensitive material and adapted to be inserted within the camera (holders for X-ray films G03B 42/04) [2]
G03B 17/28	1-Punkt Untergruppe	. Locating light-sensitive material within camera
G03B 17/30	2-Punkt Untergruppe	. . Locating spools or other rotatable holders of coiled film
G03B 17/32	2-Punkt Untergruppe	. . Locating plates or cut films
G03B 17/34	3-Punkt Untergruppe	. . . Changing plates or cut films
G03B 17/36	1-Punkt Untergruppe	. Counting number of exposures (of film strips G03B 1/66; counting mechanisms in general G06M)
G03B 17/38	1-Punkt Untergruppe	. Releasing-devices separate from shutter (integral with shutter G03B 9/08)
G03B 17/40	2-Punkt Untergruppe	. . with delayed or timed action
G03B 17/42	1-Punkt Untergruppe	. Interlocking between shutter operation and advance of film or change of plate or cut-film
G03B 17/44	1-Punkt Untergruppe	. Means for exchanging focusing screen and light-sensitive material
G03B 17/46	1-Punkt Untergruppe	. Means for exposing single frames in motion-picture camera
G03B 17/48	1-Punkt Untergruppe	. adapted for combination with other photographic or optical apparatus (with microscopes, with telescopes G02B)
G03B 17/50	2-Punkt Untergruppe	. . with both developing and finishing apparatus (processing apparatus G03D)
G03B 17/52	3-Punkt Untergruppe	. . . of the Land type

Symbol	Typ	Titel
G03B 17/53	3-Punkt Untergruppe	. . . for automatically delivering a finished picture after a signal causing exposure has been given, e.g. by pushing a button, by inserting a coin
G03B 17/54	2-Punkt Untergruppe	. . with projector
G03B 17/55	1-Punkt Untergruppe	. with provision for heating or cooling, e.g. in aircraft
G03B 17/56	1-Punkt Untergruppe	. Accessories (carrying-cases A45C)
G03B 17/58	2-Punkt Untergruppe	. . Attachments for converting cameras into reflex cameras
G03B 19/00	**Hauptgruppe**	**Cameras (details G03B 17/00)**
G03B 19/02	1-Punkt Untergruppe	. Still-picture cameras
G03B 19/04	2-Punkt Untergruppe	. . Roll-film cameras
G03B 19/06	3-Punkt Untergruppe	. . . adapted to be loaded with more than one film, e.g. with exposure of one or the other at will (G03B 19/07 takes precedence)
G03B 19/07	3-Punkt Untergruppe	. . . having more than one objective
G03B 19/08	3-Punkt Untergruppe	. . . with provision for alternative use with plates or cut-films
G03B 19/10	2-Punkt Untergruppe	. . Plate or cut-film cameras (with provision for alternative use with roll film G03B 19/08)
G03B 19/12	2-Punkt Untergruppe	. . Reflex cameras with single objective and a movable reflector or a partly-transmitting mirror
G03B 19/14	2-Punkt Untergruppe	. . with paired lenses, one of which forms image on photographic material and the other forms a corresponding image on a focusing screen
G03B 19/16	2-Punkt Untergruppe	. . Pin-hole cameras
G03B 19/18	1-Punkt Untergruppe	. Motion-picture cameras (with non-intermittently running film G03B 41/02)
G03B 19/20	2-Punkt Untergruppe	. . Reflex cameras
G03B 19/22	2-Punkt Untergruppe	. . Double cameras
G03B 19/24	2-Punkt Untergruppe	. . adapted to be loaded with more than one film, e.g. with exposure of one or the other at will
G03B 19/26	2-Punkt Untergruppe	. . with fade-in and fade-out effects [4]
G03B 21/00	**Hauptgruppe**	**Projectors or projection-type viewers; Accessories therefor (devices for changing pictures G03B 23/00; zoetropes G03B 25/00; photographic printing apparatus G03B 27/00; devices or systems producing a varying lighting effect F21S 10/00; optical projection comparators G01B 9/08; projection microscopes G02B 21/36)**
G03B 21/02	1-Punkt Untergruppe	. Multiple-film apparatus
G03B 21/04	2-Punkt Untergruppe	. . Picture "juke-boxes"
G03B 21/06	1-Punkt Untergruppe	. affording only episcopic projection
G03B 21/08	1-Punkt Untergruppe	. affording epidiascopic projection
G03B 21/10	1-Punkt Untergruppe	. Projectors with built-in or built-on screen (projection screens in general G03B 21/56)
G03B 21/11	2-Punkt Untergruppe	. . for microfilm reading
G03B 21/12	1-Punkt Untergruppe	. adapted for projection of either still pictures or motion pictures (prolonged exhibition of single frame G03B 21/38)
G03B 21/13	1-Punkt Untergruppe	. Projectors for producing special effects at the edges of picture, e.g. blurring

Symbol	Typ	Titel
G03B 21/132	1-Punkt Untergruppe	. Overhead projectors, i.e. capable of projecting hand-writing or drawing during action (epidiascopic projectors G03B 21/08)
G03B 21/134	1-Punkt Untergruppe	. Projectors combined with typing apparatus or with printing apparatus
G03B 21/14	1-Punkt Untergruppe	. Details
G03B 21/16	2-Punkt Untergruppe	. . Cooling; Preventing overheating
G03B 21/18	2-Punkt Untergruppe	. . Fire preventing or extinguishing
G03B 21/20	2-Punkt Untergruppe	. . Lamp housings (condensers per seG02B)
G03B 21/22	2-Punkt Untergruppe	. . Soundproof bodies
G03B 21/26	2-Punkt Untergruppe	. . Projecting separately subsidiary matter simultaneously with main image (light pointers G02B 27/20)
G03B 21/28	2-Punkt Untergruppe	. . Reflectors in projection beam
G03B 21/30	2-Punkt Untergruppe	. . adapted to collapse or fold, e.g. for portability
G03B 21/32	2-Punkt Untergruppe	. . Details specially adapted for motion-picture projection (with film moving continuously through the gate G03B 41/02)
G03B 21/34	3-Punkt Untergruppe	. . . Change-over arrangements
G03B 21/36	4-Punkt Untergruppe	. . . . Fades, dissolves, or wipes
G03B 21/38	3-Punkt Untergruppe	. . . Prolonged exhibition of single frame
G03B 21/40	3-Punkt Untergruppe	. . . Eliminating or reducing effect of flicker
G03B 21/42	3-Punkt Untergruppe	. . . Preventing damage to film due to abnormal operation of projector
G03B 21/43	3-Punkt Untergruppe	. . . Driving mechanisms
G03B 21/44	4-Punkt Untergruppe	. . . . Mechanisms transmitting motion to film-strip feed; Mechanical linking of shutter and intermittent feed (film-strip feed per seG03B 1/00)
G03B 21/46	5-Punkt Untergruppe	. . . . . affording adjustment for framing
G03B 21/48	5-Punkt Untergruppe	. . . . . for altering frame speed; for regulating constancy of film speed
G03B 21/50	3-Punkt Untergruppe	. . . Control devices operated by the film strip during the run (controlling or regulating speed G03B 21/48)
G03B 21/52	4-Punkt Untergruppe	. . . . by prepared film
G03B 21/53	2-Punkt Untergruppe	. . Means for automatic focusing, e.g. to compensate thermal effects (automatic focusing in general G02B 7/09; systems for automatic generation of focusing signals G02B 7/28) [5]
G03B 21/54	1-Punkt Untergruppe	. Accessories
G03B 21/56	2-Punkt Untergruppe	. . Projection screens
G03B 21/58	3-Punkt Untergruppe	. . . collapsible, e.g. foldable; of variable area
G03B 21/60	3-Punkt Untergruppe	. . . characterised by the nature of the surface, e.g. lenticular, fluid
G03B 21/62	4-Punkt Untergruppe	. . . . translucent
G03B 21/64	2-Punkt Untergruppe	. . Means for mounting individual pictures to be projected, e.g. frame for transparency
G03B 23/00	**Hauptgruppe**	**Devices for changing pictures in viewing apparatus or projectors (film-strip handling G03B 1/00;**

Symbol	Typ	Titel
		direct viewers G02B)
G03B 23/02	1-Punkt Untergruppe	. in which a picture is removed from a stock and returned to the same stock or another one; Magazines therefor
G03B 23/04	2-Punkt Untergruppe	. . with linear movement
G03B 23/06	2-Punkt Untergruppe	. . with rotary movement
G03B 23/08	1-Punkt Untergruppe	. in which pictures are attached to a movable carrier
G03B 23/10	2-Punkt Untergruppe	. . drum or disc carrier
G03B 23/12	2-Punkt Untergruppe	. . linear strip carrier
G03B 23/14	1-Punkt Untergruppe	. Carriers operable to move pictures into, and out of, the projection or viewing position and carrying one or two pictures only in a removable manner (G03B 23/18 takes precedence) [4]
G03B 23/18	1-Punkt Untergruppe	. with fade-in and fade-out effects [4]
G03B 25/00	**Hauptgruppe**	**Viewers, other than projection viewers, giving motion-picture effects by persistence of vision, e.g. zoetrope (high-speed photography G03B 39/00)**
G03B 25/02	1-Punkt Untergruppe	. with interposed lenticular or line screen
G03B 27/00	**Hauptgruppe**	**Photographic printing apparatus (film-strip handling G03B 1/00)**
G03B 27/02	1-Punkt Untergruppe	. Exposure apparatus for contact printing
G03B 27/04	2-Punkt Untergruppe	. . Copying apparatus without a relative movement between the original and the light source during exposure, e.g. printing frame, printing box
G03B 27/06	3-Punkt Untergruppe	. . . for automatic repeated copying of the same original
G03B 27/08	3-Punkt Untergruppe	. . . for automatic copying of several originals one after the other, e.g. for copying cinematograph film
G03B 27/10	2-Punkt Untergruppe	. . Copying apparatus with a relative movement between the original and the light source during exposure
G03B 27/12	3-Punkt Untergruppe	. . . for automatic repeated copying of the same original
G03B 27/14	2-Punkt Untergruppe	. . Details
G03B 27/16	3-Punkt Untergruppe	. . . Illumination arrangements, e.g. positioning of lamps, positioning of reflectors (controlling the exposure G03B 27/72)
G03B 27/18	3-Punkt Untergruppe	. . . Maintaining or producing contact pressure between original and light-sensitive material
G03B 27/20	4-Punkt Untergruppe	. . . . by using a vacuum or fluid pressure
G03B 27/22	4-Punkt Untergruppe	. . . . by stretching over a curved surface
G03B 27/24	3-Punkt Untergruppe	. . . Separating the original from the print
G03B 27/26	3-Punkt Untergruppe	. . . Cooling
G03B 27/28	3-Punkt Untergruppe	. . . Edge-masking devices
G03B 27/30	3-Punkt Untergruppe	. . . adapted to be combined with processing apparatus (processing apparatus per seG03D)
G03B 27/32	1-Punkt Untergruppe	. Projection printing apparatus, e.g. enlarger, copying camera
G03B 27/34	2-Punkt Untergruppe	. . Means for automatic focusing therefor (systems for automatic generation of focusing signals G02B 7/28; means for automatic focusing for photomechanical production G03F 7/207) [4]
G03B 27/36	3-Punkt Untergruppe	. . . by mechanical connections, e.g. by cam, by linkage

Symbol	Typ	Titel
G03B 27/38	4-Punkt Untergruppe	. . . . embodying screws with non-uniform pitch
G03B 27/40	4-Punkt Untergruppe	. . . . adapted for use with lenses of different focal length
G03B 27/42	2-Punkt Untergruppe	. . for automatic sequential copying of the same original (G03B 27/34, G03B 27/53 take precedence) [4]
G03B 27/44	2-Punkt Untergruppe	. . for multiple copying of the same original at the same time (G03B 27/34, G03B 27/53 take precedence) [4]
G03B 27/46	2-Punkt Untergruppe	. . for automatic sequential copying of different originals, e.g. enlargers, roll film printers (G03B 27/34, G03B 27/50, G03B 27/53 take precedence) [4]
G03B 27/465	3-Punkt Untergruppe	. . . at different positions of the same strip, e.g. microfilm [4]
G03B 27/47	3-Punkt Untergruppe	. . . at different positions of the same sheet, e.g. microfiche [4]
G03B 27/475	3-Punkt Untergruppe	. . . copying cinematographic film (G03B 27/48 takes precedence) [4]
G03B 27/48	3-Punkt Untergruppe	. . . with original in the form of a film strip moving continuously and compensation for consequent image movement
G03B 27/50	2-Punkt Untergruppe	. . with slit or like diaphragm moving over original for progressive exposure (G03B 27/34 takes precedence) [4]
G03B 27/52	2-Punkt Untergruppe	. . Details
G03B 27/53	3-Punkt Untergruppe	. . . 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, G03F 9/00) [4]
G03B 27/54	3-Punkt Untergruppe	. . . Lamp housings; Illuminating means (controlling the exposure G03B 27/72)
G03B 27/56	3-Punkt Untergruppe	. . . Mounting enlarger head on column
G03B 27/58	3-Punkt Untergruppe	. . . Baseboards, masking frames, or other holders for the sensitive material (G03B 27/53 takes precedence) [4]
G03B 27/60	4-Punkt Untergruppe	. . . . using a vacuum or fluid pressure
G03B 27/62	3-Punkt Untergruppe	. . . Holders for the original (G03B 27/53 takes precedence) [4]
G03B 27/64	4-Punkt Untergruppe	. . . . using a vacuum or fluid pressure
G03B 27/66	3-Punkt Untergruppe	. . . specially adapted for holding half-tone screens
G03B 27/68	3-Punkt Untergruppe	. . . Introducing or correcting distortion, e.g. in connection with oblique projection
G03B 27/70	3-Punkt Untergruppe	. . . Reflectors in printing beam
G03B 27/72	1-Punkt Untergruppe	. Controlling or varying light intensity, spectral composition, or exposure time in photographic printing apparatus (exposure meters per seG01J; control of light intensity in general G05D 25/00)
G03B 27/73	2-Punkt Untergruppe	. . Controlling exposure by variation of spectral composition, e.g. multicolor printers [3]
G03B 27/74	2-Punkt Untergruppe	. . Positioning exposure meters in the apparatus
G03B 27/80	2-Punkt Untergruppe	. . in dependence upon automatic analysis of the original (G03B 27/73 takes precedence) [3]
G03B 29/00	**Hauptgruppe**	**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 G03B 15/03; combinations with instruments for medical examination of cavities or tubes of the body A61B 1/04; arrangements specially adapted for eye photography A61B 3/14; combinations with surveying instruments G01C; combinations with core or moderator structure of nuclear reactors G21C 17/08; structural combinations with electric discharge tubes H01J 5/16, H01J 29/89, H01J 37/22)**

Symbol	Typ	Titel
		Special techniques
G03B 31/00	**Hauptgruppe**	**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 G11B 5/633)**
G03B 31/02	1-Punkt Untergruppe	. in which sound track is on a moving-picture film
G03B 31/04	1-Punkt Untergruppe	. in which sound track is not on, but is synchronised with, a moving-picture film
G03B 31/06	1-Punkt Untergruppe	. in which sound track is associated with successively-shown still pictures
G03B 31/08	1-Punkt Untergruppe	. with fade-in and fade-out effects [4]
G03B 33/00	**Hauptgruppe**	**Colour photography, other than mere exposure or projection of a colour film (printing apparatus G03B 27/00; stereoscopic colour photography G03B 35/00)**
G03B 33/02	1-Punkt Untergruppe	. by two-colour separation records, e.g. red-aspect and white complete records; using Land effect
G03B 33/04	1-Punkt Untergruppe	. by four or more separation records
G03B 33/06	1-Punkt Untergruppe	. by additive-colour projection apparatus
G03B 33/08	1-Punkt Untergruppe	. Sequential recording or projection (G03B 33/02, G03B 33/04, G03B 33/06 take precedence)
G03B 33/10	1-Punkt Untergruppe	. Simultaneous recording or projection (G03B 33/02, G03B 33/04, G03B 33/06 take precedence)
G03B 33/12	2-Punkt Untergruppe	. . using beam-splitting or beam-combining systems, e.g. dichroic mirrors
G03B 33/14	2-Punkt Untergruppe	. . using lenticular screens (integral with film G03C)
G03B 33/16	2-Punkt Untergruppe	. . using colour-pattern screens (integral with film G03C)
G03B 35/00	**Hauptgruppe**	**Stereoscopic photography (panoramic or wide-screen systems G03B 37/00; photogrammetry G01C)**
G03B 35/02	1-Punkt Untergruppe	. by sequential recording
G03B 35/04	2-Punkt Untergruppe	. . with movement of beam-selecting members in a system defining two or more viewpoints
G03B 35/06	2-Punkt Untergruppe	. . with axial movement of lens or gate between exposures
G03B 35/08	1-Punkt Untergruppe	. by simultaneous recording
G03B 35/10	2-Punkt Untergruppe	. . having single camera with stereoscopic-base-defining system
G03B 35/12	2-Punkt Untergruppe	. . involving recording of different viewpoint images in different colours on a colour film
G03B 35/14	1-Punkt Untergruppe	. Printing apparatus specially adapted for conversion between different types of record (G03B 42/08 takes precedence) [4]
G03B 35/16	1-Punkt Untergruppe	. by sequential viewing
G03B 35/18	1-Punkt Untergruppe	. by simultaneous viewing
G03B 35/20	2-Punkt Untergruppe	. . using two or more projectors
G03B 35/22	2-Punkt Untergruppe	. . using single projector with stereoscopic-base-defining system
G03B 35/24	2-Punkt Untergruppe	. . using apertured or refractive resolving means on screen or between screen and eye
G03B 35/26	2-Punkt Untergruppe	. . using polarised or coloured light for separating different viewpoint images
G03B 37/00	**Hauptgruppe**	**Panoramic or wide-screen photography; Photographing extended surfaces, e.g. for surveying; Photographing internal surfaces, e.g. of pipe**
G03B 37/02	1-Punkt Untergruppe	. with scanning movement of lens or camera

Symbol	Typ	Titel
G03B 37/04	1-Punkt Untergruppe	. with cameras or projectors providing touching or overlapping fields of view
G03B 37/06	1-Punkt Untergruppe	. involving anamorphosis (G03B 37/02, G03B 37/04 take precedence)
G03B 39/00	**Hauptgruppe**	**High-speed photography**
G03B 39/02	1-Punkt Untergruppe	. using stationary plate or film (G03B 39/06 takes precedence)
G03B 39/04	1-Punkt Untergruppe	. using moving plate or film (G03B 39/06 takes precedence)
G03B 39/06	1-Punkt Untergruppe	. using light-guides for transferring image frame or elements thereof into different array, e.g. into a line
G03B 41/00	**Hauptgruppe**	**Special photographic techniques not covered by groups G03B 31/00-G03B 39/00; Apparatus therefor [2]**
G03B 41/02	1-Punkt Untergruppe	. using non-intermittently-running film
G03B 41/04	2-Punkt Untergruppe	. . with optical compensator
G03B 41/06	3-Punkt Untergruppe	. . . with rotating reflecting member
G03B 41/08	3-Punkt Untergruppe	. . . with rotating transmitting member
G03B 41/10	3-Punkt Untergruppe	. . . with oscillating reflecting member
G03B 41/12	3-Punkt Untergruppe	. . . with oscillating transmitting member
G03B 41/14	2-Punkt Untergruppe	. . Overcoming image movement by brief flashes of light
G03B 42/00	**Hauptgruppe**	**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) [4]**
G03B 42/02	1-Punkt Untergruppe	. using X-rays (measurement of X-radiation G01T; X-ray apparatus, circuits therefor H05G 1/00) [4]
G03B 42/04	2-Punkt Untergruppe	. . Holders for X-ray films [4]
G03B 42/06	1-Punkt Untergruppe	. using ultrasonic, sonic or infrasonic waves (measurement of ultrasonic, sonic or infrasonic waves G01H) [4]
G03B 42/08	1-Punkt Untergruppe	. Visualisation of records by optical means (optical systems using spatial filters G02B 27/46; optics for phase object visualisation G02B 27/50) [4]
G03B 43/00	**Hauptgruppe**	**Testing correct operation of photographic apparatus or parts thereof (measuring specific variables G01)**
G03B 43/02	1-Punkt Untergruppe	. Testing shutters (measuring time intervals G04F)