

# CPC COOPERATIVE PATENT CLASSIFICATION

## G PHYSICS (NOTES omitted)

### INSTRUMENTS

**G03 PHOTOGRAPHY; CINEMATOGRAPHY; ELECTROGRAPHY; HOLOGRAPHY**  
(reproduction of pictures or patterns by scanning and converting into electrical signals [H04N](#))

**G03G ELECTROGRAPHY; ELECTROPHOTOGRAPHY; MAGNETOGRAPHY** (information storage based on relative movement between record carrier and transducer [G11B](#); static stores with means for writing-in or reading-out information [G11C](#); recording of television signals [H04N 5/76](#))

#### NOTES

- This subclass covers:
  - the production of permanent directly-visible pictures in conformity with an original picture or document, using an intermediate imagewise distribution of an electric or magnetic quantity, such as a charge pattern, an electric conductivity pattern, or a magnetic pattern;
  - the production of permanent directly-visible pictures using an intermediate imagewise distribution of an electric or magnetic quantity, when the origin and the way of generating said intermediate distribution are not relevant.
- This subclass does not cover:
  - use of electric signals for the transmission of the picture information from the original to the reproduction, i.e. pictorial communication, which is covered by subclass [H04N](#);
  - production of pictures by heat patterns exclusively, not using an electrostatic or magnetic pattern, which is covered by group [B41M 5/00](#);
  - production of prints by transferring ink from a printing form to a printing surface, without physical contact and using the force of an electrostatic field, which is covered by subclass [B41M](#);
  - selective printing mechanisms characterised by the selective supply of electric current, or the selective application of magnetism or radiation, to a printing material or impression-transfer material, which are covered by groups [B41J 2/385](#), [B41J 2/435](#).

<b>5/00</b>	<b>Recording members for original recording by exposure, e.g. to light, to heat, to electrons; Manufacture thereof; Selection of materials therefor (recording surfaces for measuring apparatus <a href="#">G01D 15/34</a>; photosensitive materials for photographic purposes <a href="#">G03C</a>)</b>	5/028	. . Layers in which after being exposed to heat patterns electrically conductive patterns are formed in the layers, e.g. for thermoxerography
		5/04	. . Photoconductive layers; Charge-generation layers or charge-transporting layers; Additives therefor; Binders therefor
5/005	. {Materials for treating the recording members, e.g. for cleaning, reactivating, polishing}	5/043	. . . Photoconductive layers characterised by having two or more layers or characterised by their composite structure
5/02	. Charge-receiving layers ( <a href="#">G03G 5/153</a> takes precedence)	5/0433	. . . . {all layers being inorganic}
5/0202	. . {Dielectric layers for electrography}	5/0436	. . . . {combining organic and inorganic layers}
5/0205	. . . {Macromolecular components}	5/047	. . . . characterised by the charge-generation layers or charge transport layers ({ <a href="#">G03G 5/0433</a> and <a href="#">G03G 5/0436</a> take precedence})
5/0208	. . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds}	5/05	. . . Organic bonding materials; Methods for coating a substrate with a photoconductive layer; Inert supplements for use in photoconductive layers
5/0211	. . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}	5/0503	. . . . {Inert supplements}
5/0214	. . . {Organic non-macromolecular components}	5/0507	. . . . . {Inorganic compounds}
5/0217	. . . {Inorganic components}	5/051	. . . . . {Organic non-macromolecular compounds}
5/022	. . Layers for surface-deformation imaging, e.g. frost imaging	5/0514	. . . . . {not comprising cyclic groups}
5/024	. . Photoelectret layers	5/0517	. . . . . {comprising one or more cyclic groups consisting of carbon-atoms only}
5/026	. . Layers in which during the irradiation a chemical reaction occurs whereby electrically conductive patterns are formed in the layers, e.g. for chemixerography	5/0521	. . . . . {comprising one or more heterocyclic groups}

5/0525	. . . .	{Coating methods}	5/0607	. . . . .	{containing at least one non-six-membered ring}
5/0528	. . . .	{Macromolecular bonding materials}	5/0609	. . . . .	{containing oxygen}
		<b>NOTE</b>	5/0611	. . . . .	{Squaric acid}
		In groups <a href="#">G03G 5/0528</a> - <a href="#">G03G 5/0596</a> ,	5/0612	. . . . .	{containing nitrogen}
		in the absence of an indication to the	5/0614	. . . . .	{Amines}
		contrary, a polymer is classified in the last	5/0616	. . . . .	{Hydrazines; Hydrazones}
		appropriate place	5/0618	. . . . .	{containing oxygen and nitrogen}
5/0532	. . . . .	{obtained by reactions only involving	5/062	. . . . .	{containing non-metal elements other than
		carbon-to-carbon unsaturated bonds}			hydrogen, halogen, oxygen or nitrogen}
5/0535	. . . . .	{Polyolefins; Polystyrenes; Waxes}	5/0622	. . . . .	{Heterocyclic compounds}
5/0539	. . . . .	{Halogenated polymers}	5/0624	. . . . .	{containing one hetero ring}
5/0542	. . . . .	{Polyvinylalcohol, polyallyl alcohol;	5/0625	. . . . .	{being three- or four-membered}
		Derivatives thereof, e.g. polyvinylesters,	5/0627	. . . . .	{being five-membered}
		polyvinylethers, polyvinylamines}	5/0629	. . . . .	{containing one hetero atom}
5/0546	. . . . .	{Polymers comprising at least one	5/0631	. . . . .	{containing two hetero atoms}
		carboxyl radical, e.g. polyacrylic acid,	5/0633	. . . . .	{containing three hetero atoms}
		polycrotonic acid, polymaleic acid;	5/0635	. . . . .	{being six-membered}
		Derivatives thereof, e.g. their esters,	5/0637	. . . . .	{containing one hetero atom}
		salts, anhydrides, nitriles, amides}	5/0638	. . . . .	{containing two hetero atoms}
5/055	. . . . .	{Polymers containing hetero rings in the	5/064	. . . . .	{containing three hetero atoms}
		side chain}	5/0642	. . . . .	{being more than six-membered}
5/0553	. . . . .	{Polymers derived from conjugated	5/0644	. . . . .	{containing two or more hetero rings}
		double bonds containing monomers, e.g.	5/0646	. . . . .	{in the same ring system}
		polybutadiene; Rubbers}	5/0648	. . . . .	{containing two relevant rings}
5/0557	. . . . .	{obtained otherwise than by reactions	5/065	. . . . .	{containing three relevant rings}
		only involving carbon-to-carbon unsaturated	5/0651	. . . . .	{containing four relevant rings}
		bonds}	5/0653	. . . . .	{containing five relevant rings}
5/056	. . . . .	{Polyesters}	5/0655	. . . . .	{containing six relevant rings}
5/0564	. . . . .	{Polycarbonates}	5/0657	. . . . .	{containing seven relevant rings}
5/0567	. . . . .	{Other polycondensates comprising	5/0659	. . . . .	{containing more than seven relevant
		oxygen atoms in the main chain; Phenol			rings}
		resins}	5/0661	. . . . .	{in different ring systems, each system
5/0571	. . . . .	{Polyamides; Polyimides}			containing at least one hetero ring}
5/0575	. . . . .	{Other polycondensates comprising	5/0662	. . . . .	{containing metal elements}
		nitrogen atoms with or without oxygen			<b>NOTE</b>
		atoms in the main chain}			Alcoholates, phenates or organic acid
5/0578	. . . . .	{Polycondensates comprising silicon			salts of alkali or alkaline earth metals are
		atoms in the main chain}			classified as the parent compounds
5/0582	. . . . .	{Polycondensates comprising sulfur	5/0664	. . . . .	{Dyes}
		atoms in the main chain}	5/0666	. . . . .	{containing a methine or polymethine
5/0585	. . . . .	{Cellulose and derivatives}			group}
5/0589	. . . . .	{Macromolecular compounds	5/0668	. . . . .	{containing only one methine or
		characterised by specific side-chain			polymethine group}
		substituents or end groups}	5/067	. . . . .	{containing hetero rings}
5/0592	. . . . .	{Macromolecular compounds	5/0672	. . . . .	{containing two or more methine or
		characterised by their structure or by their			polymethine groups}
		chemical properties, e.g. block polymers,	5/0674	. . . . .	{containing hetero rings}
		reticulated polymers, molecular weight,	5/0675	. . . . .	{Azo dyes}
		acidity}	5/0677	. . . . .	{Monoazo dyes}
5/0596	. . . . .	{Macromolecular compounds	5/0679	. . . . .	{Disazo dyes}
		characterised by their physical properties}	5/0681	. . . . .	{containing hetero rings in the part of
5/06	. . .	characterised by the photoconductive material			the molecule between the azo-groups}
		being organic	5/0683	. . . . .	{containing polymethine or
		<b>NOTE</b>			anthraquinone groups}
		In groups <a href="#">G03G 5/06</a> - <a href="#">G03G 5/0698</a> , in the	5/0685	. . . . .	{containing hetero rings in the part
		absence of an indication to the contrary, an			of the molecule between the azo-
		invention is classified in the last appropriate			groups}
		place	5/0687	. . . . .	{Trisazo dyes}
5/0601	. . . . .	{Acyclic or carbocyclic compounds}	5/0688	. . . . .	{containing hetero rings}
5/0603	. . . . .	{containing halogens}			
5/0605	. . . . .	{Carbocyclic compounds}			

- 5/069 . . . . . {containing polymethine or anthraquinone groups}
- 5/0692 . . . . . {containing hetero rings}
- 5/0694 . . . . . {containing more than three azo groups}
- 5/0696 . . . . . {Phthalocyanines}
- 5/0698 . . . . . {Compounds of unspecified structure characterised by a substituent only}
- 5/07 . . . . . Polymeric photoconductive materials
- 5/071 . . . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds  
(G03G 5/078 takes precedence)}
- 5/073 . . . . . {comprising pending carbazol groups}
- 5/075 . . . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds  
(G03G 5/078 takes precedence)}
- 5/076 . . . . . {having a photoconductive moiety in the polymer backbone}
- 5/078 . . . . . {comprising silicon atoms}
- 5/08 . . . . . characterised by the photoconductive material being inorganic
- 5/082 . . . . . and not being incorporated in a bonding material, e.g. vacuum deposited
- 5/08207 . . . . . {Selenium-based}
- 5/08214 . . . . . {Silicon-based}
- 5/08221 . . . . . {comprising one or two silicon based layers}
- 5/08228 . . . . . {at least one with varying composition}
- 5/08235 . . . . . {comprising three or four silicon-based layers}
- 5/08242 . . . . . {at least one with varying composition}
- 5/0825 . . . . . {comprising five or six silicon-based layers}
- 5/08257 . . . . . {at least one with varying composition}
- 5/08264 . . . . . {comprising seven or more silicon-based layers}
- 5/08271 . . . . . {at least one with varying composition}
- 5/08278 . . . . . {Depositing methods}
- 5/08285 . . . . . {Carbon-based (in ad mixture with Si  
(G03G 5/08214))}
- 5/08292 . . . . . {Germanium-based (in ad mixture with Si  
(G03G 5/08214))}
- 5/085 . . . . . and being incorporated in an inorganic bonding material, e.g. glass-like layers
- 5/087 . . . . . and being incorporated in an organic bonding material
- 5/09 . . . . . Sensitisors or activators, e.g. dyestuffs  
(G03G 5/12 takes precedence)
- 5/10 . . . . . Bases for charge-receiving or other layers
- 5/101 . . . . . {Paper bases (G03G 5/102, G03G 5/104,  
(G03G 5/105 take precedence))}
- 5/102 . . . . . {consisting of or comprising metals}
- 5/104 . . . . . {comprising inorganic material other than metals, e.g. salts, oxides, carbon}
- 5/105 . . . . . {comprising electroconductive macromolecular compounds}
- 5/107 . . . . . {the electroconductive macromolecular compounds being cationic}
- 5/108 . . . . . {the electroconductive macromolecular compounds being anionic}
- 5/12 . . . . . Recording members for multicolour processes
- 5/14 . . . . . Inert intermediate or cover layers for charge-receiving layers (G03G 5/04 takes precedence)
- 5/142 . . . . . {Inert intermediate layers}
- 5/144 . . . . . {comprising inorganic material}
- 5/147 . . . . . Cover layers
- 5/14704 . . . . . {comprising inorganic material}
- 5/14708 . . . . . {comprising organic material}
- 5/14713 . . . . . {Macromolecular material}
- NOTE**
- In groups  
G03G 5/14713 - G03G 5/14795, in the absence of an indication to the contrary, a polymer is classified in the last appropriate place
- 5/14717 . . . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds}
- 5/14721 . . . . . {Polyolefins; Polystyrenes; Waxes}
- 5/14726 . . . . . {Halogenated polymers}
- 5/1473 . . . . . {Polyvinylalcohol, polyallyl alcohol; Derivatives thereof, e.g. polyvinylesters, polyvinylethers, polyvinylamines}
- 5/14734 . . . . . {Polymers comprising at least one carboxyl radical, e.g. polyacrylic acid, polycrotonic acid, polymaleic acid; Derivatives thereof, e.g. their esters, salts, anhydrides, nitriles, amides}
- 5/14739 . . . . . {Polymers containing hereto rings in the side chain}
- 5/14743 . . . . . {Polymers derived from conjugated double bonds containing monomers, e.g. polybutadiene; Rubbers}
- 5/14747 . . . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}
- 5/14752 . . . . . {Polyesters}
- 5/14756 . . . . . {Polycarbonates}
- 5/1476 . . . . . {Other polycondensates comprising oxygen atoms in the main chain; Phenol resins}
- 5/14765 . . . . . {Polyamides; Polyimides}
- 5/14769 . . . . . {Other polycondensates comprising nitrogen atoms with or without oxygen atoms in the main chain}
- 5/14773 . . . . . {Polycondensates comprising silicon atoms in the main chain}
- 5/14778 . . . . . {Polycondensates comprising sulfur atoms in the main chain}
- 5/14782 . . . . . {Cellulose and derivatives}
- 5/14786 . . . . . {Macromolecular compounds characterised by specific side-chain substituents or end groups}
- 5/14791 . . . . . {Macromolecular compounds characterised by their structure, e.g. block polymers, reticulated polymers, or by their chemical properties, e.g. by molecular weight or acidity}
- 5/14795 . . . . . {Macromolecular compounds characterised by their physical properties}
- 5/153 . . . . . Charge-receiving layers combined with additional photo- or thermo-sensitive, but not photoconductive, layers, e.g. silver-salt layers

- 5/16 . . Layers for recording by changing the magnetic properties, e.g. for Curie-point-writing
- 7/00 Selection of materials for use in image-receiving members, i.e. for reversal by physical contact; Manufacture thereof (photosensitive materials for photographic purposes [G03C](#))**
- 7/0006 . . {Cover layers for image-receiving members; Strippable coversheets}
- 7/0013 . . {Inorganic components thereof}
- 7/002 . . {Organic components thereof}
- 7/0026 . . . {being macromolecular}
- 7/0033 . . . . {Natural products or derivatives thereof, e.g. cellulose, proteins}
- 7/004 . . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds}
- 7/0046 . . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}
- 7/0053 . . {Intermediate layers for image-receiving members}
- 7/006 . . {Substrates for image-receiving members; Image-receiving members comprising only one layer}
- 7/0066 . . {Inorganic components thereof}
- 7/0073 . . {Organic components thereof}
- 7/008 . . . {being macromolecular}
- 7/0086 . . {Back layers for image-receiving members; Strippable backsheets}
- 7/0093 . . {Image-receiving members, based on materials other than paper or plastic sheets, e.g. textiles, metals}
- 8/00 Layers covering the final reproduction, e.g. for protecting, for writing thereon**
- 9/00 Developers**
- 9/06 . the developer being electrolytic
- 9/08 . with toner particles
- NOTE**
- In groups [G03G 9/0802](#) - [G03G 9/135](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.
- 9/0802 . . {Preparation methods}
- 9/0804 . . . {whereby the components are brought together in a liquid dispersing medium}
- 9/0806 . . . . {whereby chemical synthesis of at least one of the toner components takes place}
- 9/0808 . . . {by dry mixing the toner components in solid or softened state}
- 9/081 . . . {by mixing the toner components in a liquefied state; melt kneading; reactive mixing}
- 9/0812 . . . {Pretreatment of components}
- 9/0815 . . . {Post-treatment}
- 9/0817 . . . {Separation; Classifying}
- 9/0819 . . {characterised by the dimensions of the particles}
- 9/0821 . . {characterised by physical parameters ([magnetic parameters \[G03G 9/083\]\(#\)](#))}
- 9/0823 . . . {Electric parameters}
- 9/0825 . . {characterised by their structure; characterised by non-homogeneous distribution of components ([microcapsular toners \[G03G 9/093\]\(#\)](#))}
- 9/0827 . . {characterised by their shape, e.g. degree of sphericity}
- 9/083 . . Magnetic toner particles
- 9/0831 . . . . {Chemical composition of the magnetic components}
- 9/0832 . . . . {Metals}
- 9/0833 . . . . {Oxides}
- 9/0834 . . . . {Non-magnetic inorganic compounds chemically incorporated in magnetic components}
- 9/0835 . . . . {Magnetic parameters of the magnetic components}
- 9/0836 . . . . {Other physical parameters of the magnetic components}
- 9/0837 . . . . {Structural characteristics of the magnetic components, e.g. shape, crystallographic structure}
- 9/0838 . . . . {Size of magnetic components}
- 9/0839 . . . . {Treatment of the magnetic components; Combination of the magnetic components with non-magnetic materials ([G03G 9/0834 takes precedence](#))}
- 9/087 . . Binders for toner particles
- 9/08702 . . . . {comprising macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds}
- 9/08704 . . . . {Polyalkenes}
- 9/08706 . . . . {Polymers of alkenyl-aromatic compounds}
- 9/08708 . . . . . {Copolymers of styrene}
- 9/08711 . . . . . . {with esters of acrylic or methacrylic acid}
- 9/08713 . . . . . {Polyvinylhalogenides}
- 9/08715 . . . . . . {containing chlorine, bromine or iodine}
- 9/08717 . . . . . . . {Polyvinylchloride}
- 9/0872 . . . . . . {containing fluorine}
- 9/08722 . . . . . . {Polyvinylalcohols; Polyallyl alcohols; Polyvinylethers; Polyvinylaldehydes; Polyvinylketones; Polyvinylketals}
- 9/08724 . . . . . . {Polyvinylesters}
- 9/08726 . . . . . . {Polymers of unsaturated acids or derivatives thereof}
- 9/08728 . . . . . . . {Polymers of esters}
- 9/08731 . . . . . . . {Polymers of nitriles}
- 9/08733 . . . . . . . {Polymers of unsaturated polycarboxylic acids}
- 9/08735 . . . . . . . {Polymers of unsaturated cyclic compounds having no unsaturated aliphatic groups in a side-chain, e.g. coumarone-indene resins}
- 9/08737 . . . . . . . {Polymers derived from conjugated dienes}
- 9/0874 . . . . . . . {Polymers comprising hetero rings in the side chains}
- 9/08742 . . . . . . . {comprising macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}
- 9/08744 . . . . . . . {Polyacetals}
- 9/08746 . . . . . . . {Condensation polymers of aldehydes or ketones}
- 9/08748 . . . . . . . {Phenoplasts}
- 9/08751 . . . . . . . {Aminoplasts}
- 9/08753 . . . . . . . {Epoxyresins}
- 9/08755 . . . . . . . {Polyesters}
- 9/08757 . . . . . . . {Polycarbonates}
- 9/08759 . . . . . . . {Polyethers}
- 9/08762 . . . . . . . {Other polymers having oxygen as the only heteroatom in the main chain}

- 9/08764 . . . . {Polyureas; Polyurethanes}
- 9/08766 . . . . {Polyamides, e.g. polyesteramides}
- 9/08768 . . . . {Other polymers having nitrogen in the main chain, with or without oxygen or carbon only}
- 9/08771 . . . . {Polymers having sulfur in the main chain, with or without oxygen, nitrogen or carbon only}
- 9/08773 . . . . {Polymers having silicon in the main chain, with or without sulfur, oxygen, nitrogen or carbon only}
- 9/08775 . . . {Natural macromolecular compounds or derivatives thereof}
- 9/08777 . . . . {Cellulose or derivatives thereof}
- 9/08779 . . . . {Natural rubber}
- 9/08782 . . . . {Waxes}
- 9/08784 . . . {Macromolecular material not specially provided for in a single one of groups [G03G 9/08702](#) - [G03G 9/08775](#)}
- 9/08786 . . . . {Graft polymers}
- 9/08788 . . . . {Block polymers}
- 9/08791 . . . . {characterised by the presence of specified groups or side chains}
- 9/08793 . . . . {Crosslinked polymers}
- 9/08795 . . . . {characterised by their chemical properties, e.g. acidity, molecular weight, sensitivity to reactants}
- 9/08797 . . . . {characterised by their physical properties, e.g. viscosity, solubility, melting temperature, softening temperature, glass transition temperature}
- 9/09 . . . Colouring agents for toner particles
- 9/0902 . . . {Inorganic compounds}
- 9/0904 . . . . {Carbon black}
- 9/0906 . . . {Organic dyes}
- 9/0908 . . . . {Anthracene dyes}
- 9/091 . . . . {Azo dyes}
- 9/0912 . . . . {Indigoid; Diaryl and Triaryl methane; Oxyketone dyes}
- 9/0914 . . . . {Acridine; Azine; Oxazine; Thiazine-; (Xanthene-) dyes}
- 9/0916 . . . . {Quinoline; Polymethine dyes}
- 9/0918 . . . . {Phthalocyanine dyes}
- 9/092 . . . . {Quinacridones}
- 9/0922 . . . . {Formazane dyes; Nitro and Nitroso dyes; Quinone imides; Azomethine dyes}
- 9/0924 . . . . {Dyes characterised by specific substituents}
- 9/0926 . . . {characterised by physical or chemical properties}
- 9/0928 . . . {Compounds capable to generate colouring agents by chemical reaction}
- 9/093 . . . Encapsulated toner particles
- 9/09307 . . . {specified by the shell material}
- 9/09314 . . . . {Macromolecular compounds}
- 9/09321 . . . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds}
- 9/09328 . . . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}
- 9/09335 . . . . {Non-macromolecular organic compounds}
- 9/09342 . . . . {Inorganic compounds}
- 9/0935 . . . {specified by the core material}
- 9/09357 . . . . {Macromolecular compounds}
- 9/09364 . . . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds}
- 9/09371 . . . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}
- 9/09378 . . . . . {Non-macromolecular organic compounds}
- 9/09385 . . . . . {Inorganic compounds}
- 9/09392 . . . {Preparation thereof}
- 9/097 . . . Plasticisers; Charge controlling agents
- 9/09708 . . . {Inorganic compounds}
- 9/09716 . . . . {treated with organic compounds}
- 9/09725 . . . . {Silicon-oxides; Silicates}
- 9/09733 . . . {Organic compounds ([G03G 9/08782](#) takes precedence)}
- 9/09741 . . . . {cationic}
- 9/0975 . . . . {anionic}
- 9/09758 . . . . {comprising a heterocyclic ring}
- 9/09766 . . . . {comprising fluorine}
- 9/09775 . . . . {containing atoms other than carbon, hydrogen or oxygen ([G03G 9/09741](#) - [G03G 9/09766](#) take precedence)}
- 9/09783 . . . {Organo-metallic compounds}
- 9/09791 . . . . {Metallic soaps of higher carboxylic acids}
- 9/10 . . . characterised by carrier particles
- 9/107 . . . . having magnetic components
- 9/1075 . . . . {Carrier particles having a multi-layered structure; Carrier particles comprising a core}
- 9/113 . . . . having coatings applied thereto
- 9/1131 . . . . . {Coating methods; Structure of coatings}
- 9/1132 . . . . . {Macromolecular components of coatings}
- 9/1133 . . . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds}
- 9/1134 . . . . . . {containing fluorine atoms}
- 9/1135 . . . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}
- 9/1136 . . . . . . {containing silicon atoms}
- 9/1137 . . . . . {being crosslinked}
- 9/1138 . . . . . {Non-macromolecular organic components of coatings}
- 9/1139 . . . . . {Inorganic components of coatings}
- 9/12 . . . in liquid developer mixtures
- 9/122 . . . {characterised by the colouring agents}
- 9/125 . . . characterised by the liquid
- 9/13 . . . characterised by polymer components
- 9/131 . . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds}
- 9/132 . . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}
- 9/133 . . . . {Graft-or block polymers}
- 9/135 . . . characterised by stabiliser or charge-controlling agents
- 9/1355 . . . . {Ionic, organic compounds}
- 9/16 . . . Developers not provided for in groups [G03G 9/06](#) - [G03G 9/135](#), e.g. solutions, aerosols
- 9/18 . . . Differentially wetting liquid developers
- 11/00 Selection of substances for use as fixing agents**

- 13/00 Electrographic processes using a charge pattern** ([G03G 15/00](#), [G03G 16/00](#), [G03G 17/00](#) take precedence)
- NOTE**
- Group [G03G 15/00](#) also deals with processes in so far as they are characterised by the use or manipulation of apparatus classifiable *per se* in group [G03G 15/00](#) and therefor takes precedence
- 13/01 . for multicoloured copies {{(colour correction on photography [G03B 27/725](#); picture communication systems [H04N 1/46](#))}}
- 13/013 . . {characterised by the developing step, e.g. the properties of the colour developers}
- 13/016 . . {in which the colour powder image is formed directly on the recording material, e.g. DEP methods}
- 13/02 . Sensitising, i.e. laying-down a uniform charge ([devices for corona discharge per se H01T 19/00](#))
- 13/025 . . {by contact, friction or induction}
- 13/04 . Exposing, i.e. imagewise exposure by optically projecting the original image on a photoconductive recording material
- 13/045 . . Charging or discharging distinct portions of the charge pattern on the recording material, e.g. discharging non-image areas, contrast enhancement ([G03G 13/34](#), [G03G 15/36](#), [G03G 21/06](#) take precedence)
- 13/05 . Imagewise charging, i.e. laying-down a charge in the configuration of an original image using a modulated stream of charged particles, e.g. of corona ions, modulated by a photoconductive control screen bearing a charge pattern or by optically activated charging means ([using charging means controlled by electric image signals B41J](#))
- 13/054 . using X-rays, e.g. electroradiography
- 13/056 . using internal polarisation
- 13/06 . Developing
- 13/08 . . using a solid developer, e.g. powder developer
- 13/09 . . . using magnetic brush
- 13/095 . . . Removing excess solid developer
- 13/10 . . using a liquid developer {, e.g. liquid suspension}
- 13/11 . . . Removing excess liquid developer, e.g. by heat
- 13/14 . Transferring a pattern to a second base
- 13/16 . . of a toner pattern, e.g. a powder pattern
- 13/18 . . of a charge pattern
- 13/20 . Fixing, e.g. by using heat
- 13/22 . Processes involving a combination of more than one step according to groups [G03G 13/02](#) - [G03G 13/20](#) ([G03G 13/01](#) takes precedence)
- 13/23 . . specially adapted for copying both sides of an original or for copying on both sides of a recording or image-receiving material
- 13/24 . . whereby at least two steps are performed simultaneously
- 13/26 . for the production of printing plates for non-xerographic printing processes
- 13/28 . . Planographic printing plates
- 13/283 . . . {obtained by a process including the transfer of a toned image, i.e. indirect process}
- 13/286 . . . {for dry lithography}
- 13/30 . . Hectographic masters
- 13/32 . . Relief printing plates
- 13/34 . Editing, i.e. producing a composite image by copying one or more original images or parts thereof
- 15/00 Apparatus for electrographic processes using a charge pattern** ([G03G 16/00](#), [G03G 17/00](#) take precedence ; xerographic printers for data processors *per se* [G06K 15/14](#))
- 15/01 . for producing multicoloured copies {{(colour correction in photography [G03C](#); colour correction in printing plate production)}}
- 15/0105 . . {Details of unit}
- 15/011 . . . {for exposing}
- 15/0115 . . . . {and forming a half-tone image}
- 15/0121 . . . {for developing}
- 15/0126 . . . {using a solid developer}
- 15/0131 . . . {for transferring a pattern to a second base}
- 15/0136 . . . . {transfer member separable from recording member or *vice versa*, mode switching}
- 15/0142 . . {Structure of complete machines}
- 15/0147 . . . {using a single reusable electrographic recording member}
- 15/0152 . . . . {onto which the monocolour toner images are superposed before common transfer from the recording member}
- 15/0157 . . . . . {with special treatment between monocolour image formation}
- 15/0163 . . . . . {primary transfer to the final recording medium}
- 15/0168 . . . . . {single rotation of recording member to produce multicoloured copy ([G03G 15/0163](#) takes precedence)}
- 15/0173 . . . . . {plural rotations of recording member to produce multicoloured copy, e.g. rotating set of developing units ([G03G 15/0163](#) takes precedence)}
- 15/0178 . . . {using more than one reusable electrographic recording member, e.g. one for every monocolour image}
- 15/0184 . . . . {at least one recording member having plural associated developing units}
- 15/0189 . . . . {primary transfer to an intermediate transfer belt ([G03G 15/0184](#) takes precedence)}
- 15/0194 . . . . {primary transfer to the final recording medium ([G03G 15/0184](#) takes precedence)}
- 15/02 . for laying down a uniform charge, e.g. for sensitising; Corona discharge devices ([G03G 15/14](#) takes precedence)
- 15/0208 . . {by contact, friction or induction, e.g. liquid charging apparatus}
- 15/0216 . . . {by bringing a charging member into contact with the member to be charged, e.g. roller, brush chargers}
- 15/0225 . . . . {provided with means for cleaning the charging member}
- 15/0233 . . . . {Structure, details of the charging member, e.g. chemical composition, surface properties}
- 15/0241 . . . {by bringing charging powder particles into contact with the member to be charged, e.g. by means of a magnetic brush}
- 15/025 . . . {by bringing a charging member in the vicinity with the member to be charged, e.g. proximity charging, forming microgap}

- 15/0258 . . {provided with means for the maintenance of the charging apparatus, e.g. cleaning devices, ozone removing devices [G03G 15/0225](#), [G03G 15/0291](#) takes precedence}
- 15/0266 . . {Arrangements for controlling the amount of charge}
- 15/0275 . . {Arrangements for controlling the area of the photoconductor to be charged}
- 15/0283 . . {Arrangements for supplying power to the sensitising device}
- 15/0291 . . {corona discharge devices, e.g. wires, pointed electrodes, means for cleaning the corona discharge device}
- 15/04 . . for exposing, i.e. imagewise exposure by optically projecting the original image on a photoconductive recording material
- NOTE**
- The original image is obtained by direct optical projection or received from other sources, e.g. by computer modified or generated image data, by scanning, e.g. digital copiers
- 15/04009 . . {by forming an intermediate temporary image projected one or more times}
- 15/04018 . . {Image composition, e.g. adding or superposing informations on the original image ([composition of facsimile picture signals H04N 1/387](#))}
- 15/04027 . . {and forming half-tone image}
- 15/04036 . . {Details of illuminating systems, e.g. lamps, reflectors ([lamp housings for copying cameras, reflex exposure lighting G03B 27/542](#))}
- 15/04045 . . . {for exposing image information provided otherwise than by directly projecting the original image onto the photoconductive recording material, e.g. digital copiers ([G03G 15/041](#), [G03G 15/043](#) take precedence)}
- 15/04054 . . . . {by LED arrays}
- 15/04063 . . . . {by EL-bars}
- 15/04072 . . . . {by laser}
- 15/04081 . . . {Exposure from behind the photoconductive surface}
- 15/0409 . . {Details of projection optics ([for projection printing apparatus G03B 27/522](#))}
- 15/041 . . with variable magnification
- 15/0415 . . . {and means for controlling illumination or exposure}
- 15/043 . . with means for controlling illumination or exposure ([G03G 15/041](#) takes precedence)
- 15/0435 . . . {by introducing an optical element in the optical path, e.g. a filter}
- 15/045 . . with means for charging or discharging distinct portions of the charge pattern on the recording material, e.g. for contrast enhancement or discharging non-image areas ([G03G 15/36](#), [G03G 21/06](#) take precedence)
- 15/047 . . . for discharging non-image areas
- 15/05 . . for imagewise charging, e.g. photoconductive control screen, optically activated charging means ([charging means controlled by electric image signals B41J](#))
- 15/051 . . {by modulating an ion flow through a photoconductive screen onto which a charge image has been formed}
- 15/052 . . . . {Details and conditioning means of the screen, e.g. cleaning means, ozone removing means}
- 15/054 . . using X-rays, e.g. electroradiography
- 15/0545 . . {Ionography, i.e. X-rays induced liquid or gas discharge}
- 15/056 . . using internal polarisation
- 15/06 . . for developing
- 15/065 . . {Arrangements for controlling the potential of the developing electrode}
- 15/08 . . using a solid developer, e.g. powder developer
- 15/0801 . . . {for cascading}
- 15/0803 . . . {in a powder cloud}
- 15/0805 . . . {on a brush ([G03G 15/09](#) takes precedence)}
- 15/0806 . . . {on a donor element, e.g. belt, roller ([complete developer unit G03G 15/0896](#))}
- 15/0808 . . . . {characterised by the developer supplying means, e.g. structure of developer supply roller}
- 15/081 . . . . {characterised by the developer handling means after the supply and before the regulating, e.g. means for preventing developer blocking}
- 15/0812 . . . . {characterised by the developer regulating means, e.g. structure of doctor blade}
- 15/0813 . . . . {characterised by means in the developing zone having an interaction with the image carrying member, e.g. distance holders}
- 15/0815 . . . . {characterised by the developer handling means after the developing zone and before the supply, e.g. developer recovering roller}
- 15/0817 . . . . {characterised by the lateral sealing at both sides of the donor member with respect to the developer carrying direction}
- 15/0818 . . . . {characterised by the structure of the donor member, e.g. surface properties}
- 15/082 . . . {for immersion}
- 15/0822 . . . {Arrangements for preparing, mixing, supplying or dispensing developer}
- 15/0824 . . . . {Detection or control means for the toner concentration}
- 15/0825 . . . . . {the concentration being measured by electrical means}
- 15/0827 . . . . . {the concentration being measured by optical means}
- 15/0829 . . . . . {the concentration being measured by magnetic means}
- 15/0831 . . . . {Detection means for the toner level}
- 15/0832 . . . . {Arrangements for supplying new toner; Toner cartridges}
- 15/0834 . . . . . {Toner cartridges fulfilling a continuous function within the electrographic apparatus during the use of the supplied developer material, e.g. toner discharge on demand, storing residual toner, not acting as a passive closure for the developer replenishing opening}
- 15/0836 . . . . . {Toner cartridges having a longitudinal rotational axis, around which at least one part is rotated when mounting or using the cartridge ([G03G 15/0834](#) takes precedence)}
- 15/0837 . . . . . {the toner cartridges being generally horizontally mounted parallel to its longitudinal rotational axis}

- 15/0839 . . . . . {Arrangements for metering and dispensing toner into the development sump; Toner hoppers; Augers}
- 15/0841 . . . . . {Toner cartridges using a peelable sealing film (resealing used developer units before refilling [G03G 15/0894](#))}
- 15/0843 . . . . . {Toner cartridges using a sealing film to be ruptured or cut}
- 15/0844 . . . . . {Arrangements for purging used developer from the developing unit}
- 15/0846 . . . . . {Arrangements for conditioning developer in the developing sump, e.g. removing impurities or humidity}
- 15/0848 . . . . . {Arrangements for testing or measuring developer properties or quality, e.g. charge, size, flowability}
- 15/0849 . . . . . {Detection or control means for the developer concentration}
- 15/0851 . . . . . {the concentration being measured by electrical means}
- 15/0853 . . . . . {the concentration being measured by magnetic means}
- 15/0855 . . . . . {the concentration being measured by optical means}
- 15/0856 . . . . . {Detection or control means for the developer level}
- 15/0858 . . . . . {the level being measured by mechanical means}
- 15/086 . . . . . {the level being measured by electro-magnetic means}
- 15/0862 . . . . . {the level being measured by optical means}
- 15/0863 . . . . . {provided with identifying means or means for storing process- or use parameters, e.g. an electronic memory}
- 15/0865 . . . . . {Arrangements for supplying new developer}
- 15/0867 . . . . . {cylindrical developer cartridges, e.g. toner bottles for the developer replenishing opening}
- 15/0868 . . . . . {Toner cartridges fulfilling a continuous function within the electrographic apparatus during the use of the supplied developer material, e.g. toner discharge on demand, storing residual toner, acting as an active closure for the developer replenishing opening}
- 15/087 . . . . . {Developer cartridges having a longitudinal rotational axis, around which at least one part is rotated when mounting or using the cartridge ([G03G 15/0834](#) takes precedence)}
- 15/0872 . . . . . {the developer cartridges being generally horizontally mounted parallel to its longitudinal rotational axis}
- 15/0874 . . . . . {non-rigid containers, e.g. foldable cartridges, bags}
- 15/0875 . . . . . {cartridges having a box like shape}
- 15/0877 . . . . . {Arrangements for metering and dispensing developer from a developer cartridge into the development unit}
- 15/0879 . . . . . {for dispensing developer from a developer cartridge not directly attached to the development unit}
- 15/0881 . . . . . {Sealing of developer cartridges}
- 15/0882 . . . . . {by a peelable sealing film (resealing used developer units before refilling: [G03G 15/0894](#))}
- 15/0884 . . . . . {by a sealing film to be ruptured or cut}
- 15/0886 . . . . . {by mechanical means, e.g. shutter, plug}
- 15/0887 . . . . . {Arrangements for conveying and conditioning developer in the developing unit, e.g. agitating, removing impurities or humidity}
- 15/0889 . . . . . {for agitation or stirring}
- 15/0891 . . . . . {for conveying or circulating developer, e.g. augers}
- 15/0893 . . . . . {in a closed loop within the sump of the developing device}
- 15/0894 . . . . . {Reconditioning of the developer unit, i.e. reusing or recycling parts of the unit, e.g. resealing of the unit before refilling with toner}
- 15/0896 . . . . . {Arrangements or disposition of the complete developer unit or parts thereof not provided for by groups [G03G 15/08](#) - [G03G 15/0894](#)}
- 15/0898 . . . . . {for preventing toner scattering during operation, e.g. seals (sealing the donor member [G03G 15/0817](#); sealing the magnetic brush [G03G 15/0942](#))}
- 15/09 . . . . . using magnetic brush
- 15/0907 . . . . . {with bias voltage ([G03G 15/065](#) takes precedence)}
- 15/0914 . . . . . {with a one-component toner}
- 15/0921 . . . . . {Details concerning the magnetic brush roller structure, e.g. magnet configuration}
- 15/0928 . . . . . {relating to the shell, e.g. structure, composition}
- 15/0935 . . . . . {relating to bearings or driving mechanism}
- 15/0942 . . . . . {with means for preventing toner scattering from the magnetic brush, e.g. magnetic seals}
- 15/095 . . . . . Removing excess solid developer {, e.g. fog preventing}
- 15/10 . . . . . using a liquid developer
- 15/101 . . . . . {for wetting the recording material}
- 15/102 . . . . . {for differentially wetting the recording material (developers for differentially wetting [G03G 9/18](#))}
- 15/104 . . . . . {Preparing, mixing, transporting or dispensing developer}
- 15/105 . . . . . {Detection or control means for the toner concentration}
- 15/107 . . . . . {Condensing developer fumes ([G03G 15/11](#) takes precedence)}
- 15/108 . . . . . {with which the recording material is brought in contact, e.g. immersion or surface immersion development}
- 15/11 . . . . . Removing excess liquid developer, e.g. by heat
- 15/14 . . . . . for transferring a pattern to a second base
- 15/16 . . . . . of a toner pattern, e.g. a powder pattern {, e.g. magnetic transfer}
- 15/1605 . . . . . {using at least one intermediate support ([G03G 15/1625](#) takes precedence)}
- 15/161 . . . . . {with means for handling the intermediate support, e.g. heating, cleaning, coating with a transfer agent}



- 15/1615 . . . . {relating to the driving mechanism for the intermediate support, e.g. gears, couplings, belt tensioning}
- 15/162 . . . . {details of the the intermediate support, e.g. chemical composition}
- 15/1625 . . . {on a base other than paper}
- 15/163 . . . {using the force produced by an electrostatic transfer field formed between the second base and the electrographic recording member, e.g. transfer through an air gap}
- 15/1635 . . . . {the field being produced by laying down an electrostatic charge behind the base or the recording member, e.g. by a corona device}
- 15/164 . . . . {the second base being a continuous paper band, e.g. a CFF}
- 15/1645 . . . . {Arrangements for controlling the amount of charge}
- 15/165 . . . . {Arrangements for supporting or transporting the second base in the transfer area, e.g. guides}
- 15/1655 . . . . . {comprising a rotatable holding member to which the second base is attached or attracted, e.g. screen transfer holding drum}
- 15/166 . . . . . {with means for conditioning the holding member, e.g. cleaning}
- 15/1665 . . . {by introducing the second base in the nip formed by the recording member and at least one transfer member, e.g. in combination with bias or heat}
- 15/167 . . . . {at least one of the recording member or the transfer member being rotatable during the transfer}
- 15/1675 . . . . . {with means for controlling the bias applied in the transfer nip}
- 15/168 . . . . . {with means for conditioning the transfer element, e.g. cleaning}
- 15/1685 . . . . . {Structure, details of the transfer member, e.g. chemical composition}
- 15/169 . . . {with means for preconditioning the toner image before the transfer ([G03G 15/095](#) and [G03G 15/11](#) take precedence)}
- 15/1695 . . . {with means for preconditioning the paper base before the transfer}
- 15/18 . . . of a charge pattern
- 15/20 . . . for fixing, e.g. by using heat
- 15/2003 . . . {using heat}
- 15/2007 . . . {using radiant heat, e.g. infra-red lamps, microwave heaters}
- 15/201 . . . . {of high intensity and short duration, i.e. flash fusing}
- 15/2014 . . . {using contact heat}
- 15/2017 . . . . {Structural details of the fixing unit in general, e.g. cooling means, heat shielding means ([G03G 15/2053](#) takes precedence)}
- 15/2021 . . . . . {Plurality of separate fixing and/or cooling areas or units, two step fixing}
- 15/2025 . . . . . {with special means for lubricating and/or cleaning the fixing unit, e.g. applying offset preventing fluid}
- 15/2028 . . . . . {with means for handling the copy material in the fixing nip, e.g. introduction guides, stripping means}
- 15/2032 . . . . . {Retractable heating or pressure unit}
- 15/2035 . . . . . {for maintenance purposes, e.g. for removing a jammed sheet}
- 15/2039 . . . . {with means for controlling the fixing temperature}
- 15/2042 . . . . . {specially for the axial heat partition}
- 15/2046 . . . . . {specially for the influence of heat loss, e.g. due to the contact with the copy material or other roller}
- 15/205 . . . . . {specially for the mode of operation, e.g. standby, warming-up, error ([G03G 15/2046](#) takes precedence)}
- 15/2053 . . . . . {Structural details of heat elements, e.g. structure of roller or belt, eddy current, induction heating}
- 15/2057 . . . . . {relating to the chemical composition of the heat element and layers thereof}
- 15/206 . . . . . {Structural details or chemical composition of the pressure elements and layers thereof}
- 15/2064 . . . . . {combined with pressure}
- 15/2067 . . . . . {with retractable fixing or pressure unit}
- 15/2071 . . . . . {for maintenance purpose, e.g. for removing a jammed sheet}
- 15/2075 . . . . . {with special means for lubricating and/or cleaning the fuser unit, e.g. applying offset preventing fluid}
- 15/2078 . . . . . {with means for controlling and/or regulating the fixing temperature}
- 15/2082 . . . . . {specially the axial heat repartition}
- 15/2085 . . . . . {with means for handling the copy material in the fuser nip, e.g. introduction guides, stripping means}
- 15/2089 . . . . . {Details of pressure units, e.g. structure}
- 15/2092 . . . {using pressure only}
- 15/2096 . . . {using a solvent}
- 15/22 . . . involving the combination of more than one step according to groups [G03G 13/02](#) - [G03G 13/20](#) ([G03G 15/01](#) takes precedence)
- 15/221 . . . {Machines other than electrographic copiers, e.g. electrophotographic cameras, electrostatic typewriters}
- 15/222 . . . {Machines for handling xeroradiographic images, e.g. xeroradiographic processors}
- 15/223 . . . {Machines for handling microimages, e.g. microfilm copiers}
- 15/224 . . . {Machines for forming tactile or three dimensional images by electrographic means, e.g. braille, 3d printing}
- 15/225 . . . {using contact-printing}
- 15/226 . . . {where the image is formed on a dielectric layer covering the photoconductive layer}
- 15/227 . . . {the length of the inner surface of the dielectric layer being greater than the length of the outer surface of the photoconductive layer}
- 15/228 . . . {the process involving the formation of a master, e.g. photocopy-printer machines}
- 15/23 . . . specially adapted for copying both sides of an original or for copying on both sides of a recording or image-receiving material
- 15/231 . . . {Arrangements for copying on both sides of a recording or image-receiving material}
- 15/232 . . . . {using a single reusable electrographic recording member}

- 15/234 . . . . . {by inverting and refeeding the image receiving material with an image on one face to the recording member to transfer a second image on its second face, e.g. by using a duplex tray; Details of duplex trays or inverters}
- 15/235 . . . . . {the image receiving member being preconditioned before transferring the second image, e.g. decurled, or the second image being formed with different operating parameters, e.g. a different fixing temperature}
- 15/237 . . . . . {the image receiving member being in form of a continuous web ([G03G 15/235 takes precedence](#))}
- 15/238 . . . . . {using more than one reusable electrographic recording member, e.g. single pass duplex copiers}
- 15/24 . . whereby at least two steps are performed simultaneously
- 15/26 . . in which the charge pattern is obtained by projection of the entire image, i.e. whole-frame projection ([G03G 15/04 takes precedence](#))
- 15/263 . . . {using a reusable recording medium in form of a band}
- 15/266 . . . {using a reusable recording medium in form of a plate or a sheet}
- 15/28 . . in which projection is obtained by line scanning ([G03G 15/04 takes precedence](#))
- 15/283 . . . {using a reusable recording medium in form of a band}
- 15/286 . . . {using a reusable recording medium in form of a plate or a sheet}
- 15/30 . . . in which projection is formed on a drum
- 15/302 . . . . . {with arrangements for copying different kinds of originals, e.g. sheets, books}
- 15/305 . . . . . {with special means to synchronize the scanning optic to the operation of other parts of the machine, e.g. photoreceptor, copy paper}
- 15/307 . . . . . {with more than one photoconductor revolution for each copying cycle}
- 15/32 . . in which the charge pattern is formed dotwise, {e.g. by a thermal head} ([G03G 15/04](#), [G03G 15/05](#), [G03G 15/34 take precedence](#))
- 15/321 . . . {by charge transfer onto the recording material in accordance with the image}
- 15/323 . . . . . {by modulating charged particles through holes or a slit}
- 15/325 . . . . . {using a stylus or a multi-styli array}
- 15/326 . . . {by application of light, e.g. using a LED array}
- 15/328 . . . . . {using a CRT}
- 15/34 . . in which the powder image is formed directly on the recording material {, e.g. by using a liquid toner}
- 15/342 . . . {by forming a uniform powder layer and then removing the non-image areas}
- 15/344 . . . {by selectively transferring the powder to the recording medium, e.g. by using a LED array}
- 15/346 . . . . . {by modulating the powder through holes or a slit}
- 15/348 . . . . . {using a stylus or a multi-styli array}
- 15/36 . . Editing, i.e. producing a composite image by copying one or more original images or parts thereof
- 15/50 . . {Machine control of apparatus for electrographic processes using a charge pattern, e.g. regulating different parts of the machine, multimode copiers, microprocessor control ([sequencing control G03G 21/14](#))}
- 15/5004 . . . {Power supply control, e.g. power-saving mode, automatic power turn-off}
- 15/5008 . . . {Driving control for rotary photosensitive medium, e.g. speed control, stop position control}
- 15/5012 . . . {Priority interrupt; Job recovery, e.g. after jamming or malfunction}
- 15/5016 . . . {User-machine interface; Display panels; Control console}
- 15/502 . . . . . {relating to the structure of the control menu, e.g. pop-up menus, help screens}
- 15/5025 . . . {by measuring the original characteristics, e.g. contrast, density}
- 15/5029 . . . {by measuring the copy material characteristics, e.g. weight, thickness}
- 15/5033 . . . {by measuring the photoconductor characteristics, e.g. temperature, or the characteristics of an image on the photoconductor}
- 15/5037 . . . . . {the characteristics being an electrical parameter, e.g. voltage}
- 15/5041 . . . . . {Detecting a toner image, e.g. density, toner coverage, using a test patch ([G03G 15/553 takes precedence](#))}
- 15/5045 . . . . . {Detecting the temperature}
- 15/505 . . . . . {Detecting the speed, e.g. for continuous control of recording starting time}
- 15/5054 . . . {by measuring the characteristics of an intermediate image carrying member or the characteristics of an image on an intermediate image carrying member, e.g. intermediate transfer belt or drum, conveyor belt}
- 15/5058 . . . . . {using a test patch}
- 15/5062 . . . {by measuring the characteristics of an image on the copy material}
- 15/5066 . . . {by using information from an external support, e.g. magnetic card}
- 15/507 . . . . . {being interleaved with the original or directly written on the original, e.g. using a control sheet}
- 15/5075 . . . {Remote control machines, e.g. by a host}
- 15/5079 . . . . . {for maintenance}
- 15/5083 . . . . . {for scheduling}
- 15/5087 . . . . . {for receiving image data}
- 15/5091 . . . . . {for user-identification or authorisation}
- 15/5095 . . . {Matching the image with the size of the copy material, e.g. by calculating the magnification or selecting the adequate copy material size}
- 15/55 . . {Self-diagnostics; Malfunction or lifetime display}
- 15/553 . . . {Monitoring or warning means for exhaustion or lifetime end of consumables, e.g. indication of insufficient copy sheet quantity for a job}
- 15/556 . . . . . {for toner consumption, e.g. pixel counting, toner coverage detection, toner density measurement ([detectors G03G 15/0831](#))}
- 15/60 . . {Apparatus which relate to the handling of originals ([for photographic purposes in general G03B](#))}
- 15/602 . . . {for transporting}

- 15/605 . . {Holders for originals or exposure platens (for photographic purposes in general [G03B](#))}
- 15/607 . . {for detecting size, presence or position of original}
- 15/65 . {Apparatus which relate to the handling of copy material (handling sheets or webs in general [B65H](#); for photographic purposes in general [G03B](#))}
- 15/6502 . . {Supplying of sheet copy material; Cassettes therefor}
- 15/6505 . . . {for copy sheets in ream}
- 15/6508 . . . {Automatic supply devices interacting with the rest of the apparatus, e.g. selection of a specific cassette (matching the image with the size of the copy material [G03G 15/5095](#))}
- 15/6511 . . . {Feeding devices for picking up or separation of copy sheets}
- 15/6514 . . . {Manual supply devices}
- 15/6517 . . {Apparatus for continuous web copy material of plain paper, e.g. supply rolls; Roll holders therefor}
- 15/652 . . . {Feeding a copy material originating from a continuous web roll}
- 15/6523 . . . {Cutting}
- 15/6526 . . . {Computer form folded [CFF] continuous web, e.g. having sprocket holes or perforations}
- 15/6529 . . {Transporting ([G03G 15/6555](#) takes precedence)}
- 15/6532 . . {Removing a copy sheet from a xerographic drum, band or plate (removing sheets from printing cylinders [B65H 29/02](#))}
- 15/6535 . . . {using electrostatic means, e.g. a separating corona}
- 15/6538 . . {Devices for collating sheet copy material, e.g. sorters, control, copies in staples form}
- 15/6541 . . . {Binding sets of sheets, e.g. by stapling, glueing}
- 15/6544 . . . . {Details about the binding means or procedure}
- 15/6547 . . . {Shifting sets of sheets in the discharge tray}
- 15/655 . . . {Placing job divider sheet between set of sheets}
- 15/6552 . . {Means for discharging uncollated sheet copy material, e.g. discharging rollers, exit trays}
- 15/6555 . . {Handling of sheet copy material taking place in a specific part of the copy material feeding path}
- 15/6558 . . . {Feeding path after the copy sheet preparation and up to the transfer point, e.g. registering; Deskewing; Correct timing of sheet feeding to the transfer point}
- 15/6561 . . . . {for sheet registration}
- 15/6564 . . . . {with correct timing of sheet feeding}
- 15/6567 . . . . {for deskewing or aligning}
- 15/657 . . . {Feeding path after the transfer point and up to the fixing point, e.g. guides and feeding means for handling copy material carrying an unfused toner image}
- 15/6573 . . . {Feeding path after the fixing point and up to the discharge tray or the finisher, e.g. special treatment of copy material to compensate for effects from the fixing}
- 15/6576 . . . . {Decurling of sheet material}
- 15/6579 . . . {Refeeding path for composite copying}
- 15/6582 . . {Special processing for irreversibly adding or changing the sheet copy material characteristics or its appearance, e.g. stamping, annotation printing, punching}
- 15/6585 . . . {by using non-standard toners, e.g. transparent toner, gloss adding devices}
- 15/6588 . . {characterised by the copy material, e.g. postcards, large copies, multi-layered materials, coloured sheet material}
- 15/6591 . . . {characterised by the recording material, e.g. plastic material, OHP, ceramics, tiles, textiles (details transferring the toner pattern onto particular materials [G03G 15/1625](#))}
- 15/6594 . . . {characterised by the format or the thickness, e.g. endless forms}
- 15/6597 . . {the imaging being conformed directly on the copy material, e.g. using photosensitive copy material, dielectric copy material for electrostatic printing}
- 15/70 . {Detecting malfunctions relating to paper handling, e.g. jams}
- 15/703 . . {Detecting multiple sheets}
- 15/706 . . {Detecting missed stripping from xerographic drum, band or plate}
- 15/75 . {Details relating to xerographic drum, band or plate, e.g. replacing, testing (electrographic recording members *per se* [G03G 5/00](#))}
- 15/751 . . {relating to drum ([G03G 15/757](#) takes precedence)}
- 15/752 . . . {with renewable photoconductive layer}
- 15/754 . . {relating to band, e.g. tensioning ([G03G 15/757](#) takes precedence)}
- 15/755 . . . {for maintaining the lateral alignment of the band}
- 15/757 . . {Drive mechanisms for photosensitive medium, e.g. gears}
- 15/758 . . {relating to plate or sheet}
- 15/80 . {Details relating to power supplies, circuits boards, electrical connections}
- 16/00 Electrographic processes using deformation of thermoplastic layers (layers for surface-deformation imaging [G03G 5/022](#)); Apparatus therefor {(shaping of plastic objects with thermoplastic memory effect [B29C 61/00](#); digital stores using thermoplastic elements [G11C 11/46](#); television signal recording using deformable thermoplastic recording medium [H04N 5/82](#))}**
- 17/00 Electrographic processes using patterns other than charge patterns, e.g. an electric conductivity pattern; Processes involving a migration, e.g. photoelectrophoresis, photoelectrosology; Processes involving a selective transfer, e.g. electrophoto-adhesive processes; Apparatus essentially involving a single such process**
- 17/005 . {Radiation field photography, e.g. Kirlian photography, colour-discharge photography (recording electrical waveforms in general [G01R 13/04](#), e.g. [G01R 13/12](#) - [G01R 13/14](#))}
- 17/02 . with electrolytic development
- 17/04 . using photoelectrophoresis
- 17/06 . . Apparatus therefor
- 17/08 . using an electrophoto-adhesive process, e.g. manifold imaging

- 17/10 . using migration imaging, e.g. photoelectrography ([G03G 17/04 takes precedence](#))
- 19/00 Processes using magnetic patterns; Apparatus therefor {, i.e. magnetography}**
- NOTE**
- This group comprises also processes and apparatus wherein magnetography and electrography are combined; magnetographic printing apparatus for data processing machines [G06K 15/14](#); recording members therefor [G03G 5/00](#); magnetic recording members for television [G11B](#); recording of sound [G11B](#); recording of electric measurements [G01R 13/00](#); recording apparatus for measurements in general [G01D](#)
- 19/005 . {where the image is formed by selective demagnetizing, e.g. thermomagnetic recording}
- 21/00 Arrangements not provided for by groups G03G 13/00 - G03G 19/00, e.g. cleaning, elimination of residual charge**
- 21/0005 . {for removing solid developer or debris from the electrographic recording medium}
- 21/0011 . . {using a blade; Details of cleaning blades, e.g. blade shape, layer forming}
- 21/0017 . . . {Details relating to the internal structure or chemical composition of the blades}
- 21/0023 . . . {with electric bias}
- 21/0029 . . . {Details relating to the blade support}
- 21/0035 . . {using a brush; Details of cleaning brushes, e.g. fibre density ([G03G 21/0064 takes precedence](#); [magnetic brushes G03G 21/0047](#))}
- 21/0041 . . {using a band; Details of cleaning bands, e.g. band winding}
- 21/0047 . . {using electrostatic or magnetic means; Details thereof, e.g. magnetic pole arrangement of magnetic devices ([G03G 21/0064 takes precedence](#))}
- 21/0052 . . {using an air flow; Details thereof, e.g. nozzle structure}
- 21/0058 . . {using a roller or a polygonal rotating cleaning member; Details thereof, e.g. surface structure ([G03G 21/0064 takes precedence](#))}
- 21/0064 . . {using the developing unit, e.g. cleanerless or multi-cycle apparatus}
- 21/007 . . {Arrangement or disposition of parts of the cleaning unit}
- 21/0076 . . . {Plural or sequential cleaning devices}
- 21/0082 . . . . {Separate cleaning member for toner and debris}
- 21/0088 . {removing liquid developer}
- 21/0094 . {fatigue treatment of the photoconductor}
- 21/02 . Counting the number of copies; Billing
- 21/04 . Preventing copies being made of an original
- 21/043 . . {by using an original which is not reproducible or only reproducible with a different appearance, e.g. originals with a photochromic layer or a colour background}
- 21/046 . . {by discriminating a special original, e.g. a bank note}
- 21/06 . Eliminating residual charges from a reusable imaging member
- 21/08 . . using optical radiation
- 21/10 . Collecting or recycling waste developer
- 21/105 . . {Arrangements for conveying toner waste}
- 21/12 . . Toner waste containers
- 21/14 . Electronic sequencing control
- 21/145 . . {wherein control pulses are generated by the mechanical movement of parts of the machine, e.g. the photoconductor}
- 21/16 . Mechanical means for facilitating the maintenance of the apparatus, e.g. modular arrangements
- 21/1604 . . {Arrangement or disposition of the entire apparatus}
- 21/1609 . . . {for space saving, e.g. structural arrangements}
- 21/1614 . . . {Measures for handling of apparatus by disabled persons}
- 21/1619 . . . {Frame structures}
- 21/1623 . . . {Means to access the interior of the apparatus}
- 21/1628 . . . . {Clamshell type ([G03G 21/1638 takes precedence](#))}
- 21/1633 . . . . {using doors or covers ([G03G 21/1638 takes precedence](#))}
- 21/1638 . . . . {directed to paper handling or jam treatment}
- 21/1642 . . {for connecting the different parts of the apparatus}
- 21/1647 . . . {Mechanical connection means}
- 21/1652 . . . {Electrical connection means}
- 21/1657 . . . {Wireless connection means, e.g. RFID}
- 21/1661 . . {means for handling parts of the apparatus in the apparatus ([G03G 21/1604](#), [G03G 21/1642 take precedence](#))}
- 21/1666 . . . {for the exposure unit}
- 21/1671 . . . {for the photosensitive element}
- 21/1676 . . . {for the developer unit}
- 21/168 . . . {for the transfer unit}
- 21/1685 . . . {for the fixing unit}
- 21/169 . . . {for the cleaning unit}
- 21/1695 . . . {for paper transport}
- 21/18 . . using a processing cartridge {, whereby the process cartridge comprises at least two image processing means in a single unit}
- 21/1803 . . . {Arrangements or disposition of the complete process cartridge or parts thereof}
- 21/1807 . . . . {colour}
- 21/181 . . . . {Manufacturing or assembling, recycling, reuse, transportation, packaging or storage}
- 21/1814 . . . . {Details of parts of process cartridge, e.g. for charging, transfer, cleaning, developing ([G03G 21/1835 takes precedence](#))}
- 21/1817 . . . . {having a submodular arrangement}
- 21/1821 . . . . . {means for connecting the different parts of the process cartridge, e.g. attachment, positioning of parts with each other, pressure/distance regulation ([G03G 21/1825 takes precedence](#))}
- 21/1825 . . . . . {Pivotable subunit connection}
- 21/1828 . . . . . {Prevention of damage or soiling, e.g. mechanical abrasion ([G03G 21/1839 takes precedence](#))}
- 21/1832 . . . . . {Shielding members, shutter, e.g. light, heat shielding, prevention of toner scattering}
- 21/1835 . . . . . {the process cartridge not comprising a photosensitive member}

- 21/1839 . . . {Means for handling the process cartridge in the apparatus body}
- 21/1842 . . . . {for guiding and mounting the process cartridge, positioning, alignment, locks (G03G 21/1864 and G03G 21/1871 take precedence)}
- 21/1846 . . . . . {using a handle for carrying or pulling out of the main machine, legs of casings}
- 21/185 . . . . . {the process cartridge being mounted parallel to the axis of the photosensitive member}
- 21/1853 . . . . . {the process cartridge being mounted perpendicular to the axis of the photosensitive member}
- 21/1857 . . . . . {for transmitting mechanical drive power to the process cartridge, drive mechanisms, gears, couplings, braking mechanisms}
- 21/186 . . . . . {Axial couplings}
- 21/1864 . . . . . {associated with a positioning function}
- 21/1867 . . . . . {for electrically connecting the process cartridge to the apparatus, electrical connectors, power supply}
- 21/1871 . . . . . {associated with a positioning function}
- 21/1875 . . . {provided with identifying means or means for storing process- or use parameters, e.g. lifetime of the cartridge}
- 21/1878 . . . . . {Electronically readable memory}
- 21/1882 . . . . . {details of the communication with memory, e.g. wireless communication, protocols}
- 21/1885 . . . . . {position of the memory; memory housings; electrodes}
- 21/1889 . . . . . {for auto-setting of process parameters, lifetime, usage}
- 21/1892 . . . . . {for presence detection, authentication}
- 21/1896 . . . . . {mechanical or optical identification means, e.g. protrusions, bar codes}
- 21/20 . Humidity or temperature control {also ozone evacuation; Internal apparatus environment control}
- 21/203 . . {Humidity}
- 21/206 . . {Conducting air through the machine, e.g. for cooling, filtering, removing gases like ozone}
- 2215/00** **Apparatus for electrophotographic processes (not used)**
- 2215/00004 . Handling of entire apparatus
- 2215/00008 . . Upright positioning for maintenance or storage
- 2215/00012 . . Upright positioning as well as horizontal positioning for image forming
- 2215/00016 . Special arrangement of entire apparatus
- 2215/00021 . . Plural substantially independent image forming units in cooperation, e.g. for duplex, colour or high-speed simplex
- 2215/00025 . Machine control, e.g. regulating different parts of the machine (not used)
- 2215/00029 . . Image density detection
- 2215/00033 . . . on recording member
- 2215/00037 . . . . Toner image detection
- 2215/00042 . . . . . Optical detection
- 2215/00046 . . . . . Magnetical detection
- 2215/0005 . . . . . without production of a specific test patch
- 2215/00054 . . . . . Electrostatic image detection
- 2215/00059 . . . on intermediate image carrying member, e.g. transfer belt
- 2215/00063 . . . Colour
- 2215/00067 . . . on recording medium
- 2215/00071 . . by measuring the photoconductor or its environmental characteristics (not used)
- 2215/00075 . . . the characteristic being its speed
- 2215/0008 . . . . for continuous control of recording starting time
- 2215/00084 . . . the characteristic being the temperature
- 2215/00088 . . by using information from an external support (not used)
- 2215/00092 . . . the support being an IC card
- 2215/00097 . . . the support being a counter
- 2215/00101 . . . the support being a magnetic card
- 2215/00105 . . . the support being a payment means, e.g. a coin
- 2215/00109 . . Remote control of apparatus, e.g. by a host
- 2215/00113 . . . Plurality of apparatus configured in groups each with its own host
- 2215/00118 . . using fuzzy logic
- 2215/00122 . . using speech synthesis or voice recognition
- 2215/00126 . . Multi-job machines
- 2215/0013 . . for producing copies with MICR
- 2215/00135 . Handling of parts of the apparatus
- 2215/00139 . . Belt
- 2215/00143 . . . Meandering prevention
- 2215/00147 . . . . using tractor sprocket holes
- 2215/00151 . . . . using edge limitations
- 2215/00156 . . . . by controlling drive mechanism
- 2215/0016 . . . . by mark detection, e.g. optical
- 2215/00164 . . . . by electronic scan control
- 2215/00168 . . . . by friction
- 2215/00172 . relative to the original handling
- 2215/00177 . . for scanning
- 2215/00181 . . . concerning the original's state of motion (not used)
- 2215/00185 . . . . original at rest
- 2215/00189 . . . . original moving
- 2215/00194 . . . . original either moving or at rest
- 2215/00198 . . . . . where one single scanning surface is used
- 2215/00202 . . . . . where separate scanning surfaces are used
- 2215/00206 . . Original medium (not used)
- 2215/0021 . . . Plural types handled
- 2215/00215 . . . . Mixed types handled
- 2215/00219 . . . Paper
- 2215/00223 . . . . Continuous web, i.e. roll
- 2215/00227 . . . . . Fan fold, e.g. CFF, normally perforated
- 2215/00232 . . . . Non-standard format
- 2215/00236 . . . . . Large sized, e.g. technical plans
- 2215/0024 . . . . . Small sized, e.g. postcards
- 2215/00244 . . . . Non-standard property
- 2215/00248 . . . . . Thick
- 2215/00253 . . . . . Thin
- 2215/00257 . . . . . coloured
- 2215/00261 . . . Plastic
- 2215/00265 . . . . Overhead Transparency, i.e. OHP
- 2215/0027 . . . . Transparent film roll
- 2215/00274 . . . . Slide
- 2215/00278 . . . . Microfiche
- 2215/00282 . . . Book
- 2215/00286 . . . With punch holes or other non-image related artifacts, e.g. staples
- 2215/00291 . . . Fragile, e.g. old documents
- 2215/00295 . . . Valuable, e.g. cheques, passport

- 2215/00299 . . . Confidential, e.g. secret documents
- 2215/00303 . . . Control sheet
- 2215/00308 . . . Object for which a graphic image is not of interest, e.g. medical sample
- 2215/00312 . . . Other special types
- 2215/00316 . . . Electronic image supplied to the apparatus
- 2215/0032 . . . Original binding
- 2215/00324 . . . Document property detectors
- 2215/00329 . . . Document size detectors
- 2215/00333 . . . . detecting feeding of documents
- 2215/00337 . . . Document set detector
- 2215/00341 . . . Jam handling in document feeder
- 2215/00345 . . . Copying machine problems
- 2215/0035 . . . Document related problems, e.g. double-fed sheets
- 2215/00354 . . . Specific document handling machines (not used)
- 2215/00358 . . . Plural feed trays for document sets, e.g. multi-job
- 2215/00362 . . relating to the copy medium handling (not used)
- 2215/00367 . . The feeding path segment where particular handling of the copy medium occurs, segments being adjacent and non-overlapping. Each segment is identified by the most downstream point in the segment, so that for instance the segment labelled "Fixing device" is referring to the path between the "Transfer device" and the "Fixing device" (not used)
- 2215/00371 . . . General use over the entire feeding path
- 2215/00375 . . . Package, e.g. a ream
- 2215/00379 . . . Copy medium holder (not used)
- 2215/00383 . . . . Cassette
- 2215/00388 . . . . . rotatable
- 2215/00392 . . . . Manual input tray
- 2215/00396 . . . Pick-up device
- 2215/004 . . . Separation device
- 2215/00405 . . . Registration device
- 2215/00409 . . . Transfer device
- 2215/00413 . . . Fixing device
- 2215/00417 . . . Post-fixing device (not used)
- 2215/00421 . . . . Discharging tray, e.g. devices stabilising the quality of the copy medium, postfixing-treatment, inverting, sorting
- 2215/00426 . . . . Post-treatment device adding qualities to the copy medium product ([G03G 2215/00421 takes precedence](#))
- 2215/0043 . . . . Refeeding path ([G03G 2215/00421 takes precedence](#))
- 2215/00434 . . . . . Refeeding tray or cassette
- 2215/00438 . . . . . Inverter of refeeding path
- 2215/00443 . . . Copy medium (not used)
- 2215/00447 . . . Plural types handled
- 2215/00451 . . . Paper
- 2215/00455 . . . . Continuous web, i.e. roll
- 2215/00459 . . . . . Fan fold, e.g. CFF, normally perforated
- 2215/00464 . . . . . Non-standard format
- 2215/00468 . . . . . Large sized, e.g. technical plans
- 2215/00472 . . . . . Small sized, e.g. postcards
- 2215/00476 . . . . Non-standard property
- 2215/00481 . . . . . Thick
- 2215/00485 . . . . . Thin
- 2215/00489 . . . . . coloured
- 2215/00493 . . . Plastic
- 2215/00497 . . . . Overhead Transparency, i.e. OHP
- 2215/00502 . . . . . Transparent film
- 2215/00506 . . . . . Slide
- 2215/0051 . . . . . Microfiche
- 2215/00514 . . . . Envelopes
- 2215/00518 . . . . Recording medium, e.g. photosensitive
- 2215/00523 . . . . Other special types, e.g. tabbed
- 2215/00527 . . . . . Fabrics, e.g. textiles
- 2215/00531 . . . . transported through the apparatus for non-imaging purposes, e.g. cleaning
- 2215/00535 . . . Stable handling of copy medium (not used)
- 2215/0054 . . . . Detachable element of feed path
- 2215/00544 . . . . Openable part of feed path
- 2215/00548 . . . . Jam, error detection, e.g. double feeding
- 2215/00552 . . . . . Purge of recording medium at jam
- 2215/00556 . . . . Control of copy medium feeding
- 2215/00561 . . . . . Aligning or deskewing
- 2215/00565 . . . . . Mechanical details
- 2215/00569 . . . . . Calibration, test runs, test prints
- 2215/00573 . . . . . Recording medium stripping from image forming member
- 2215/00578 . . . . . Composite print mode
- 2215/00582 . . . . . Plural adjacent images on one side
- 2215/00586 . . . . . duplex mode
- 2215/0059 . . . . . Effect of changed recording medium size, e.g. originating from heating
- 2215/00594 . . . . . Varying registration in order to produce special effect, e.g. binding margin
- 2215/00599 . . . . . Timing, synchronisation
- 2215/00603 . . . . Control of other part of the apparatus according to the state of copy medium feeding
- 2215/00607 . . . . Debris handling means
- 2215/00611 . . . . Detector details, e.g. optical detector
- 2215/00616 . . . . . Optical detector
- 2215/0062 . . . . . infra-red
- 2215/00624 . . . . . Magnetic detector or switch, e.g. reed switch
- 2215/00628 . . . . . Mechanical detector or switch
- 2215/00632 . . . . . Electric detector, e.g. of voltage or current
- 2215/00637 . . . . . Acoustic detector
- 2215/00641 . . . . . Pneumatic detector
- 2215/00645 . . . . . Speedometer
- 2215/00649 . . . . Electrodes close to the copy feeding path
- 2215/00654 . . . . Charging device
- 2215/00658 . . . . Brush ([G03G 2215/00654 takes precedence](#))
- 2215/00662 . . . . Decurling device
- 2215/00666 . . . . Heating or drying device
- 2215/0067 . . . . Damping device
- 2215/00675 . . . . Mechanical copy medium guiding means, e.g. mechanical switch
- 2215/00679 . . . . Conveying means details, e.g. roller
- 2215/00683 . . . . . Chemical properties
- 2215/00687 . . . . Handling details (not used)
- 2215/00691 . . . . . Shredder
- 2215/00696 . . . . . Turner acting in plane of recording medium, e.g. A4 to A4R change
- 2215/007 . . . . . Inverter not for refeeding purposes
- 2215/00704 . . . . . Curl adding, bending
- 2215/00708 . . . . . Cleaning of sheet or feeding structures
- 2215/00713 . . . . . Lock related to feeding device
- 2215/00717 . . . . Detection of physical properties (not used)
- 2215/00721 . . . . . of sheet position
- 2215/00725 . . . . . of sheet presence in input tray
- 2215/00729 . . . . . of sheet amount in input tray

- 2215/00734 . . . . of sheet size
- 2215/00738 . . . . of sheet thickness or rigidity
- 2215/00742 . . . . of sheet weight
- 2215/00746 . . . . of sheet velocity
- 2215/00751 . . . . of sheet type, e.g. OHP
- 2215/00755 . . . . of sheet toner density
- 2215/00759 . . . . of sheet image, e.g. presence, type
- 2215/00763 . . . . of sheet resistivity
- 2215/00767 . . . . of sheet potential
- 2215/00772 . . . . of temperature influencing copy sheet handling
- 2215/00776 . . . . of humidity or moisture influencing copy sheet handling
- 2215/0078 . . . . of opening of structural part
- 2215/00784 . . . . of connection or pressing of structural part
- 2215/00789 . . Adding properties or qualities to the copy medium
- 2215/00793 . . . Stamping device
- 2215/00797 . . . Printing device, i.e. annotation
- 2215/00801 . . . Coating device
- 2215/00805 . . . Gloss adding or lowering device
- 2215/0081 . . . . Gloss level being selectable
- 2215/00814 . . . Cutter
- 2215/00818 . . . Punch device
- 2215/00822 . . . Binder, e.g. glueing device
- 2215/00827 . . . . Stapler
- 2215/00831 . . . . Stitcher
- 2215/00835 . . . . Toner binding
- 2215/00839 . . . . Binding tape
- 2215/00843 . . . . Clip
- 2215/00848 . . . . Details of binding device
- 2215/00852 . . . . Temporary binding
- 2215/00856 . . . . External binding device
- 2215/0086 . . . . Manual activation of binding
- 2215/00864 . . . . Plural selectable binding modes
- 2215/00869 . . . Cover sheet adding means
- 2215/00873 . . . Tape adding means
- 2215/00877 . . . Folding device
- 2215/00881 . . . Magnetic information
- 2215/00886 . . Sorting or discharging (not used)
- 2215/0089 . . . Shifting jobs
- 2215/00894 . . . Placing job divider sheet
- 2215/00898 . . . Mechanical separator between jobs
- 2215/00902 . . . Sorting marks of jobs, e.g. on the sheet edges
- 2215/00907 . . . Electronically addressable mailing bins
- 2215/00911 . . . Detection of copy amount or presence in discharge tray
- 2215/00915 . . . . Detection of weight of copies
- 2215/00919 . . Special copy medium handling apparatus (not used)
- 2215/00924 . . . two or more parallel feed paths
- 2215/00928 . . . Copies and originals use a common part of the copy medium handling apparatus
- 2215/00932 . . . Security copies
- 2215/00936 . . . Bookbinding
- 2215/0094 . . . Copy produced and used as original
- 2215/00945 . . . Copy material feeding speed varied over the feed path
- 2215/00949 . . . Copy material feeding speed switched according to current mode of the apparatus, e.g. colour mode
- 2215/00953 . Electrographic recording members (not used)
- 2215/00957 . . Compositions
- 2215/00962 . . Electrographic apparatus defined by the electrographic recording member
- 2215/00966 . . . Sheet type electrographic recording members from which a toner or charge image is transferred
- 2215/0097 . . . . Sheet cartridge or tray
- 2215/00974 . . . Electrographic recording member arranged as a carriage to be movable in a direction perpendicular to the recording sheet transport direction
- 2215/00978 . Details relating to power supplies (not used)
- 2215/00983 . . using batteries
- 2215/00987 . Remanufacturing, i.e. reusing or recycling parts of the image forming apparatus
- 2215/00991 . . Inserting seal through a gap
- 2215/00995 . . . Insertion tool used
- 2215/01 . . for producing multicoloured copies (not used)
- 2215/0103 . . Plural electrographic recording members
- 2215/0106 . . . At least one recording member having plural associated developing units
- 2215/0109 . . . Single transfer point used by plural recording members
- 2215/0112 . . . . Linearly moving set of recording members
- 2215/0116 . . . . Rotating set of recording members
- 2215/0119 . . . Linear arrangement adjacent plural transfer points
- 2215/0122 . . . . primary transfer to an intermediate transfer belt
- 2215/0125 . . . . . the linear arrangement being horizontal or slanted
- 2215/0129 . . . . . horizontal medium transport path at the secondary transfer
- 2215/0132 . . . . . vertical medium transport path at the secondary transfer
- 2215/0135 . . . . . the linear arrangement being vertical
- 2215/0138 . . . . primary transfer to a recording medium carried by a transport belt
- 2215/0141 . . . . . the linear arrangement being horizontal
- 2215/0145 . . . . . the linear arrangement being vertical
- 2215/0148 . . . . . the linear arrangement being slanted
- 2215/0151 . . characterised by the technical problem (not used)
- 2215/0154 . . . Vibrations and positional disturbances when one member abuts or contacts another member
- 2215/0158 . . . Colour registration
- 2215/0161 . . . . Generation of registration marks
- 2215/0164 . . . Uniformity control of the toner density at separate colour transfers
- 2215/0167 . . single electrographic recording member
- 2215/017 . . . single rotation of recording member to produce multicoloured copy
- 2215/0174 . . . plural rotations of recording member to produce multicoloured copy
- 2215/0177 . . . . Rotating set of developing units
- 2215/018 . . . . Linearly moving set of developing units, one at a time adjacent the recording member
- 2215/0183 . . . . Reciprocal movement of transfer member across transfer point
- 2215/0187 . . . Multicoloured toner image formed on the recording member
- 2215/019 . . Structural features of the multicolour image forming apparatus (not used)

- 2215/0193 . . . transfer member separable from recording member
- 2215/0196 . . . Recording medium carrying member with speed switching
- 2215/02 . Arrangements for laying down a uniform charge
- 2215/021 . . by contact, friction or induction
- 2215/022 . . . using a magnetic brush
- 2215/023 . . . using a laterally vibrating brush
- 2215/025 . . . using contact charging means having lateral dimensions related to other apparatus means, e.g. photodrum, developing roller
- 2215/026 . . by coronas
- 2215/027 . . . using wires
- 2215/028 . . . using pointed electrodes
- 2215/04 . Arrangements for exposing and producing an image
- 2215/0402 . . Exposure devices
- 2215/0404 . . . Laser
- 2215/0407 . . . Light-emitting array or panel
- 2215/0409 . . . . Light-emitting diodes, i.e. LED-array
- 2215/0412 . . . . Electroluminescent elements, i.e. EL-array
- 2215/0414 . . . . Liquid-crystal display elements, i.e. LCD-shutter array
- 2215/0417 . . . Standard lamp used to produce a reflection or transmission image of an original
- 2215/0419 . . . Device not using light, e.g. ion-writer
- 2215/0421 . . . Plurality of devices for producing the image (excluding dedicated erasing means)
- 2215/0424 . . . Using contents of CCD array to produce the image
- 2215/0426 . . Editing of the image, e.g. adding or deleting ([correction, i.e. changing or enhancing the image G03G 2215/0429](#))
- 2215/0429 . . Changing or enhancing the image
- 2215/0431 . . . Producing a clean non-image area, i.e. avoiding show-around effects
- 2215/0434 . . . . Parameters defining the non-image area to be cleaned (**not used**)
- 2215/0436 . . . . . Document properties at the scanning position, e.g. position and density
- 2215/0439 . . . . . Automatic detection of properties
- 2215/0441 . . . . . Manual input of properties
- 2215/0443 . . . . . Copy medium outline relative to the charge image
- 2215/0446 . . . . . Magnification degree
- 2215/0448 . . . . Charge-erasing means for the non-image area
- 2215/0451 . . . . . Light-emitting array or panel
- 2215/0453 . . . . . Light-emitting diodes, i.e. LED-array
- 2215/0456 . . . . . Electroluminescent elements, i.e. EL-array
- 2215/0458 . . . . . Liquid-crystal display elements, i.e. LCD-shutter array
- 2215/046 . . . . . Charger
- 2215/0463 . . . . . Exposure lamp used for scanning
- 2215/0465 . . . . Developing conditions changed to produce a clean non-image area
- 2215/0468 . . . Image area information changed (default is the charge image)
- 2215/047 . . . . Image corrections
- 2215/0473 . . . . . due to document imperfections, e.g. punchholes, books
- 2215/0475 . . . . . due to cover imperfection, i.e. show-through problem
- 2215/0478 . . . . . due to image carrier variations, e.g. ageing
- 2215/048 . . . . Technical-purpose-oriented image area changes
- 2215/0482 . . . . . Toner-free areas produced
- 2215/0485 . . . . . Avoiding problems in standard processing steps, such as transfer and fixing
- 2215/0487 . . . . . Adapted to post-processing step, e.g. binding
- 2215/049 . . . . . Hiding of information contained in the image
- 2215/0492 . . . . Without changing the charge image
- 2215/0495 . . Plural charge levels of latent image produced, e.g. trilevel
- 2215/0497 . . Exposure from behind the image carrying surface
- 2215/06 . Developing structures, details
- 2215/0602 . . Developer
- NOTE**
- Indexing codes of group [G03G 2215/0602](#) and subgroups can be followed by additional symbols preceded by a "," sign and relating to additional characteristics.
- 2215/0604 . . . solid type
- 2215/0607 . . . . two-component
- 2215/0609 . . . . . magnetic brush
- 2215/0612 . . . . . cascade
- 2215/0614 . . . . . one-component
- 2215/0617 . . . . . contact development (i.e. the developer layer on the donor member contacts the latent image carrier)
- 2215/0619 . . . . . non-contact (flying development)
- 2215/0621 . . . . . powder cloud
- 2215/0624 . . . . plural systems represented (e.g. in a multicolour device or for optimising photo line development)
- 2215/0626 . . . liquid type (at developing position)
- 2215/0629 . . . . liquid at room temperature
- 2215/0631 . . . . melted, or otherwise made liquid
- 2215/0634 . . Developing device
- NOTE**
- Indexing codes of group [G03G 2215/0634](#) and subgroups can be followed by additional symbols preceded by a "," sign and relating to additional characteristics.
- 2215/0636 . . . Specific type of dry developer device
- 2215/0639 . . . . Without donor member (i.e. developing housing slides on latent image-carrying member)
- 2215/0641 . . . . Without separate supplying member (i.e. with developing housing sliding on donor member)
- 2215/0643 . . . . Electrodes in developing area, e.g. wires, not belonging to the main donor part
- 2215/0646 . . . . . Electrodes only acting from one side of the developing area, e.g. plate electrode
- 2215/0648 . . . . Two or more donor members
- 2215/0651 . . . . Electrodes in donor member surface
- 2215/0653 . . . . . Microelectrodes in donor member surface, e.g. floating
- 2215/0656 . . . . Fixed electrodes behind moving donor member surface
- 2215/0658 . . . Liquid developer devices



- 2215/066 . . . Toner cartridge or other attachable and detachable container for supplying developer material to replace the used material
- 2215/0663 . . . having a longitudinal rotational axis, around which at least one part is rotated when mounting or using the cartridge
- 2215/0665 . . . . Generally horizontally mounting of said toner cartridge parallel to its longitudinal rotational axis
- 2215/0668 . . . . . Toner discharging opening at one axial end
- 2215/067 . . . . . Toner discharging opening covered by arcuate shutter
- 2215/0673 . . . . . Generally vertically mounting of said toner cartridge parallel to its longitudinal rotational axis
- 2215/0675 . . . . . Generally cylindrical container shape having two ends
- 2215/0678 . . . . . Bottle shaped container having a bottle neck for toner discharge
- 2215/068 . . . . . having a box like shape
- 2215/0682 . . . . . Bag-type non-rigid container
- 2215/0685 . . . . . fulfilling a continuous function within the electrographic apparatus during the use of the supplied developer material, e.g. toner discharge on demand, storing residual toner, not acting as a passive closure for the developer replenishing opening
- 2215/0687 . . . . . using a peelable sealing film
- 2215/069 . . . . . using a sealing member to be ruptured or cut
- 2215/0692 . . . . . using a slidable sealing member, e.g. shutter
- 2215/0695 . . . . . using identification means or means for storing process or use parameters
- 2215/0697 . . . . . being an electronically readable memory
- 2215/08 . . . . . Details of powder developing device not concerning the development directly (**not used**)
- 2215/0802 . . . . . Arrangements for agitating or circulating developer material
- 2215/0805 . . . . . Cleaning blade adjacent to the donor member
- 2215/0808 . . . . . Donor member rotation direction (**not used**)
- 2215/0811 . . . . . Upper part of donor member transports used developer back to the sump
- 2215/0813 . . . . . Lower part of donor member transports used developer back to the sump
- 2215/0816 . . . . . Agitator type (**not used**)
- 2215/0819 . . . . . two or more agitators
- 2215/0822 . . . . . with wall or blade between agitators
- 2215/0825 . . . . . belt
- 2215/0827 . . . . . Augers
- 2215/083 . . . . . with two opposed pitches on one shaft
- 2215/0833 . . . . . with varying pitch on one shaft
- 2215/0836 . . . . . Way of functioning of agitator means (**not used**)
- 2215/0838 . . . . . Circulation of developer in a closed loop within the sump of the developing device
- 2215/0841 . . . . . Presentation of developer to donor member
- 2215/0844 . . . . . by upward movement of agitator member
- 2215/0847 . . . . . by downward movement of agitator member
- 2215/085 . . . . . Stirring member in developer container
- 2215/0852 . . . . . reciprocating
- 2215/0855 . . . . . Materials and manufacturing of the developing device
- 2215/0858 . . . . . Donor member (**not used**)
- 2215/0861 . . . . . Particular composition or materials
- 2215/0863 . . . . . Manufacturing
- 2215/0866 . . . . . Metering member
- 2215/0869 . . . . . Supplying member
- 2215/0872 . . . . . Housing of developing device
- 2215/0875 . . . . . Arrangements for shipping or transporting of the developing device to or from the user
- 2215/0877 . . . . . Sealing of the developing device opening, facing the image-carrying member
- 2215/088 . . . . . Peelable sealing film
- 2215/0883 . . . . . Rupturable sealing film, e.g. tearable film
- 2215/0886 . . . . . Container for holding the whole developing device when outside the machine, e.g. box, sack
- 2215/0888 . . . . . Arrangements for detecting toner level or concentration in the developing device
- 2215/0891 . . . . . Optical detection
- 2215/0894 . . . . . through a light transmissive window in the developer container wall
- 2215/0897 . . . . . Cleaning of the light transmissive window
- 2215/16 . . . . . Transferring device, details
- 2215/1604 . . . . . Main transfer electrode (**not used**)
- 2215/1609 . . . . . Corotron
- 2215/1614 . . . . . Transfer roll
- 2215/1619 . . . . . Transfer drum
- 2215/1623 . . . . . Transfer belt
- 2215/1628 . . . . . Blade
- 2215/1633 . . . . . Plate
- 2215/1638 . . . . . Wires
- 2215/1642 . . . . . Brush
- 2215/1647 . . . . . Cleaning of transfer member
- 2215/1652 . . . . . of transfer roll
- 2215/1657 . . . . . of transfer drum
- 2215/1661 . . . . . of transfer belt
- 2215/1666 . . . . . Preconditioning of copy medium before the transfer point
- 2215/1671 . . . . . Preheating the copy medium before the transfer point
- 2215/1676 . . . . . Simultaneous toner image transfer and fixing
- 2215/168 . . . . . at the first transfer point
- 2215/1685 . . . . . using heat
- 2215/169 . . . . . without heat
- 2215/1695 . . . . . at the second or higher order transfer point
- 2215/20 . . . . . Details of the fixing device or process

**NOTE**

Indexing codes of group [G03G 2215/20](#) can be followed by additional symbols preceded by a "+" sign and relating to additional characteristics. The indexing codes have the meaning as indicated below.

+H Using heat to fix

+P Using pressure to fix

+P1 where the pressure is changed  
+P1A being adapted to the current toner-carrying

medium treated (e.g. duplex copy, colour copy,

OHP sheet, envelope)

+P1B compensating for temperature or other technical

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(continued)

- condition variations (e.g. sheet skewing) occurring
- +PIC when being in a non-fixing or waiting mode
- +PIM for maintenance purpose or abnormal situations (e.g. power cut-off)
- 2215/2003 . . Structural features of the fixing device (not used)
- 2215/2006 . . . Plurality of separate fixing areas
- 2215/2009 . . . Pressure belt
- 2215/2012 . . . . having an end
- 2215/2016 . . . Heating belt
- 2215/2019 . . . . the belt not heating the toner or medium directly, e.g. heating a heating roller
- 2215/2022 . . . . the fixing nip having both a stationary and a rotating belt support member opposing a pressure member
- 2215/2025 . . . . the fixing nip having a rotating belt support member opposing a pressure member
- 2215/2029 . . . . . the belt further entrained around one or more stationary belt support members, the latter not being a cooling device
- 2215/2032 . . . . . the belt further entrained around additional rotating belt support members
- 2215/2035 . . . . the fixing nip having a stationary belt support member opposing a pressure member
- 2215/2038 . . . . . the belt further entrained around one or more rotating belt support members
- 2215/2041 . . . . the fixing nip being formed by tensioning the belt over a surface portion of a pressure member
- 2215/2045 . . . Variable fixing speed
- 2215/2048 . . . Surface layer material
- 2215/2051 . . . . Silicone rubber
- 2215/2054 . . . . Inorganic filler, e.g. silica powder
- 2215/2058 . . . Shape of roller along rotational axis
- 2215/2061 . . . . concave
- 2215/2064 . . . . convex
- 2215/2067 . . . . Shape of roller core
- 2215/207 . . Type of toner image to be fixed (not used)
- 2215/2074 . . . colour
- 2215/2077 . . . . Fixing between separate colour toner transfers
- 2215/208 . . . black and white
- 2215/2083 . . . duplex
- 2215/2087 . . . simplex
- 2215/209 . . . plural types of toner image handled by the fixing device
- 2215/2093 . . Release agent handling devices
- 2215/2096 . . . using porous fluoropolymers for wicking the release agent
- 2217/00 Details of electrographic processes using patterns other than charge patterns**
- 2217/0008 . Process where toner image is produced by controlling which part of the toner should move to the image-carrying member
- 2217/0016 . . where the toner is conveyed over the electrode array to get a charging and then being moved
- 2217/0025 . . where the toner starts moving from behind the electrode array, e.g. a mask of holes
- 2217/0033 . . . where the toner is held behind a gate electrode array until being released
- 2217/0041 . Process where the image-carrying member is always completely covered by a toner layer
- 2217/005 . . . where the toner is charged before producing the toner layer on the image-carrying member
- 2217/0058 . . . where the toner layer is being charged
- 2217/0066 . . . where no specific pick-up of toner occurs before transfer of the toner image
- 2217/0075 . Process using an image-carrying member having an electrode array on its surface
- 2217/0083 . Process using a fixed electrode array behind a moving recording medium
- 2217/0091 . Process comprising image exposure at the developing area
- 2221/00 Processes not provided for by group G03G 2215/00, e.g. cleaning or residual charge elimination**
- 2221/0005 . Cleaning of residual toner
- 2221/001 . . Plural sequential cleaning devices
- 2221/0015 . . Width of cleaning device related to other parts of the apparatus, e.g. transfer belt width
- 2221/0021 . . applying vibrations to the electrographic recording medium for assisting the cleaning, e.g. ultrasonic vibration
- 2221/0026 . Cleaning of foreign matter, e.g. paper powder, from imaging member
- 2221/0031 . . Type of foreign matter (not used)
- 2221/0036 . . . Oil and other liquid matter
- 2221/0042 . . . Paper powder and other dry foreign matter
- 2221/0047 . . Type of cleaning device
- 2221/0052 . . . Common container for holding cleaned foreign matter and residual toner
- 2221/0057 . . . . Separate cleaning members for foreign matter and residual toner
- 2221/0063 . . . Cleaning device for foreign matter separate from residual toner cleaning device
- 2221/0068 . . Cleaning mechanism
- 2221/0073 . . . Electrostatic
- 2221/0078 . . . Magnetic
- 2221/0084 . . . Liquid
- 2221/0089 . . . Mechanical
- 2221/0094 . . . Suction
- 2221/16 . Mechanical means for facilitating the maintenance of the apparatus, e.g. modular arrangements and complete machine concepts
- 2221/1603 . . for multicoloured copies
- 2221/1606 . . for the photosensitive element
- 2221/1609 . . . protective arrangements for preventing damage
- 2221/1612 . . . . plural shutters for openings of process cartridge
- 2221/1615 . . . being a belt
- 2221/1618 . . for the cleaning unit
- 2221/1621 . . . re-use of cleaned toner
- 2221/1624 . . . transporting cleaned toner into separate vessels, e.g. photoreceptors, external containers
- 2221/1627 . . . Details concerning the cleaning process
- 2221/163 . . for the developer unit
- 2221/1633 . . . Details concerning the developing process
- 2221/1636 . . for the exposure unit
- 2221/1639 . . for the fixing unit
- 2221/1642 . . for the transfer unit

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- 2221/1645 . . for conducting air through the machine, e.g. cooling
- 2221/1648 . . using seals, e.g. to prevent scattering of toner ([light shields for the photoreceptor G03G 2221/1609](#))
- 2221/1651 . . for connecting the different parts
- 2221/1654 . . . Locks and means for positioning or alignment
- 2221/1657 . . . transmitting mechanical drive power
- 2221/166 . . . Electrical connectors
- 2221/1663 . . having lifetime indicators
- 2221/1666 . . . integer lifetimes of each other
- 2221/1669 . . Details about used materials
- 2221/1672 . . Paper handling
- 2221/1675 . . . jam treatment
- 2221/1678 . . Frame structures
- 2221/1681 . . . Portable machines
- 2221/1684 . . . using extractable subframes, e.g. on rails or hinges
- 2221/1687 . . . using opening shell type machines, e.g. pivoting assemblies
- 2221/169 . . . Structural door designs
- 2221/1693 . . for charging
- 2221/1696 . . for auxiliary devices, e.g. add-on modules
- 2221/18 . . Cartridge systems
- 2221/1807 . . . Transport of supply parts, e.g. process cartridges
- 2221/1815 . . . for cleaning or developing but not being a process cartridge
- 2221/1823 . . . Cartridges having electronically readable memory
- 2221/183 . . . Process cartridge
- 2221/1838 . . . . Autosetting of process parameters
- 2221/1846 . . . . using a handle for carrying or pulling out of the main machine
- 2221/1853 . . . . having a submodular arrangement
- 2221/1861 . . . . . Rotational subunit connection
- 2221/1869 . . . . . Cartridge holders, e.g. intermediate frames for placing cartridge parts therein
- 2221/1876 . . . . . for production purposes, e.g. manufacture or mass production
- 2221/1884 . . . . Projections on process cartridge for guiding mounting thereof in main machine
- 2221/1892 . . . . Presence detection