

CONTENTS AND SUBJECT INDEX

INTRODUCTION	1
PRESERVATION OF PAPER.....	2
Protection Against Fungus and Bacteria	2
CuSO ₄ ·8-Hydroxyquinoline Sulfate-H ₂ SO ₄ Paper Fungicide.....	2
Moldproof Paper Containing Metallic Quinolinolates	3
Moldproof Paper Containing Di(Phenylmercuric)Ammonium Salts of Aliphatic Carboxylic Acids.	6
Water Repellent Fungicide of Wax, Reactive Polymer, Fatty Acid Ester, o-Phenylphenol, Amine Fatty Acid Soap	9
1,1-Diallylguanidine Salts for Inhibition of Mold, Bacteria and Algae.	11
2-(C ₁ to C ₁₈ Substantially Straight Chain)Pseudourea for Antimicrobial Activity.....	12
Resisting Deterioration of Acid and Age.	14
Use of Gaseous Hexamethylenetetramine to Resist Acid Induced Deterioration.	14
Deacidifying and Buffering Using Aqueous CaCl ₂ and NH ₄ CO ₃	19
Chlorinated Hydrocarbon Solution of Polyvinyl Acetal plus Basic Agent.	21
Decreasing Aging with Starch Sulfite-Bisulfite Surface Size.	24
Protection Against Fire.	27
Phenolic Condensate/Phosphorus-Containing Esters	27
Zinc Borate, Antimony Oxide, Organic Halide	29
Bonding Agent Containing Two Metal Bromides.	31
Flame Resistant Paper Having High Delamination Resistance.....	32
DECORATIVE PAPERS.....	35
Colored Papers	35
Montmorillonite Clay for Increasing Retention of Cationic Dyes on Cellulose Fibers.	35
Fixing Anionic Dyestuffs with Cationic Polymeric Fatty Acid Poly- alkylene Polyamines	37
Anionic Dye Used in Conjunction with Montmorillonite Clay and Poly- merized Fatty Nitrogen Compound.	38

Soluble Stilbene Dyes for Use in Manufacture of Colored Paper . . . . .	.41
Liquid or Granulated Dye Preparation . . . . .	.42
Process for Obtaining Multicolored Effect on Paper . . . . .	.45
Surface Coloring Using Slit Aperture Method . . . . .	.46
Ornamental Papers . . . . .	.49
Ornamental Paper Incorporating Iridescent Plastic Film Particles. . . . .	.49
Laminated Paper with Dispersed Decorative Elements . . . . .	.51
SECURITY PAPERS. . . . .	.54
Authenticatable Papers. . . . .	.54
Paper Containing Azoic Coupling Component. . . . .	.54
Paper Containing Ultraviolet Inhibitor . . . . .	.57
Paper Containing Fused Thermoplastic Material Distributed in a Regular Pattern . . . . .	.59
Anticounterfeit Betting Ticket . . . . .	.63
Shadowmarks . . . . .	.65
Epoxy Resin Application Followed by Starch Size Before Resin Cures. . . . .	.65
Resin Treatment Followed by Water Treatment . . . . .	.67
Resin Application, Water Treatment, Solvent Treatment . . . . .	.69
ABSORBENT PAPERS. . . . .	.74
Creped Tissue . . . . .	.74
Stiff Crosslinked Fibers plus Refined Papermaking Fibers. . . . .	.74
Making Tissue Using Yankee Dryer. . . . .	.77
Double Diagonally Creped Webs. . . . .	.80
Use of Corona Discharge in Dry Creping Method . . . . .	.81
Improving Tissue Paper Softness. . . . .	.85
Toweling and Wipes. . . . .	.87
Treated Wipes . . . . .	.87
Multi-Ply Wipe for Use with Organic Solvents. . . . .	.88
Paper Having Plurality of Crests and Depressions . . . . .	.90
Relatively Inextensible Center Ply Bonded to Highly Extensible Outer Plies. . . . .	.91
Adhesive Applied to Preselected Portions of Web . . . . .	.93
Crepe Papers with Interposed Plastic Film. . . . .	.96
Hygienic Papers. . . . .	.98
Tissue with Controlled Wet Breakup for Recirculating Toilets. . . . .	.98
Yeast Impregnated Tissue for Use with Septic Tanks . . . . .	.100
Avoiding Mechanical Compression Until Sheet Is 80% Dry. . . . .	.100
Temporarily Waterproof Paper Product. . . . .	.103
✓ INSULATION PAPERS . . . . .	.105
Improving Dielectric Properties of Paper by Replacement of Monovalent Cations with Divalent Cations. . . . .	.105
Boron-Filled Paper for Increased Thermal Conductivity of Dielectric Paper .	.106
Coated Electrical Insulating Paper. . . . .	.109
Frictionally Calendered Polyolefin Paper . . . . .	.112
Removal of Ionic Substances in Pulp to Be Used for Preparing Electrical Insulating Paper. . . . .	.117
ELECTROCONDUCTIVE PAPERS . . . . .	.122
Paper for Electrostatic Printing. . . . .	.122
Dimethyldiallyl Ammonium Chloride Polymers . . . . .	.122

Polymers of Amine Salt Quaternized with Epichlorohydrin	125
Quaternized Polyethylenimine	127
Unsaturated Quaternary Monomers and Polymers of Methacrylic Acid.	130
Ammonium Sulfonated Polystyrene plus Ammonium Sulfamate	134
Quaternary Ammonium Derivatives of 2-Chloromethyl-1,3-Butadiene Polymers.	135
Chrysolite Asbestos. LiCl, and Polyelectrolyte Complex Resin	138
Electrophotographic Papers	140
Binder, Clay, Sulfate Salt Surface Size for Lightweight Bulked Papers	140
Inorganic Salt/Polyhydric Alcohol-Based Coatings	141
PHOTOGRAPHIC PAPERS	144
Tub Sizing with Crosslinked Polymer Latex	144
Transparent Paper Useful as Underlay for Photosensitive Coating.	147
Incorporation of Three Different Resins in Pulp Slurry.	148
Gray Opaque Papers	151
Paper Base Containing Synthetic Fiber. CMC and Pigment	153
Nucleated Receiving Sheet for Use in Photographic Chemical Transfer Process	155
Highly Stable Resin Coated Paper	157
EXTENSIBLE PAPERS	160
Improving Tensile Strength by External Starch Sizing.	160
Machine Glazed Extensible Paper—Starch Adhesive Applied to One Face of Web	163
Use of Glycerin Lubricant to Prevent Shrinkage of Paper Web	166
Apparatus for Mechanically Compacting a Continuous Web to Effect Stretching or Shrinking	168
Extensibility in Machine as Well as Cross Machine Direction.	168
OTHER PAPERS	175
Erasable Papers	175
Acid Treatment plus Perfluorinated Carboxylic Acid Surface Size	175
Acid Treatment plus Alkanolamine Salt of Fluorine-Substituted Aliphatic Phosphate Surface Size	179
Acid Treatment plus Low Molecular Weight Polyester Surface Size	181
Use of 60 to 97% Hydrated Gelatinized Cellulosic Fibers with 3 to 40% Unhydrated Fibers	183
Antistatic and Code Papers	185
Inorganic Powder Impregnated with Antistatic Surface Agent of HLB Below 9.	185
Antistatic Paper for Punch Coding Purposes	186
Lubricated Paper	188
Paper for Food Products	190
Edible. Water-Soluble Pullulan Paper.	190
Reinforced Waterproof Paper	193
Fibrous Food Casing—Paper Web Bonded with Resin Mixture	194
Filters	196
Resin-Chrome Oxide Impregnated Oil Filter Paper	196
Filter Paper for Oil Filters.	198
Microporous Fibrous Filter Material	201
Suction Molded Pocket Type Filter.	206
Gypsum Board Cover Papers	211

Multi-Ply Cylinder Machine Paper	211
Water Repellent Paper	213
Paperboard	216
Porous Paperboard Containing Plastic Microspheres	216
Paperboard of Improved Oil Resistance	217
Miscellaneous	220
Self-Bonding Printing Paper	220
Single Continuous Operation for Manufacture of Planographic Printing Paper	225
Catalysts to Promote Chemical Drying of Ink Incorporated into Paper or Coating	226
Laminate of Expandable Plastic Beads Between Two Cellulose Fiber Webs	229
Multi-Ply Paper Having a Wet-Laid Ply and a Dry-Laid Ply	230
Parchmentized Webs—Controlling Temperature of Wash Liquid	232
Cigarette Paper—Conversion of Cellulosic Fibers by Selective Oxidation	234
Aluminized Paper for Environmental Test Kit	237
Imparting Woven or Knitted Fabric Properties to Paper	240
INVENTOR INDEX	242
U.S. PATENT NUMBER INDEX	244
COMPANY INDEX	245