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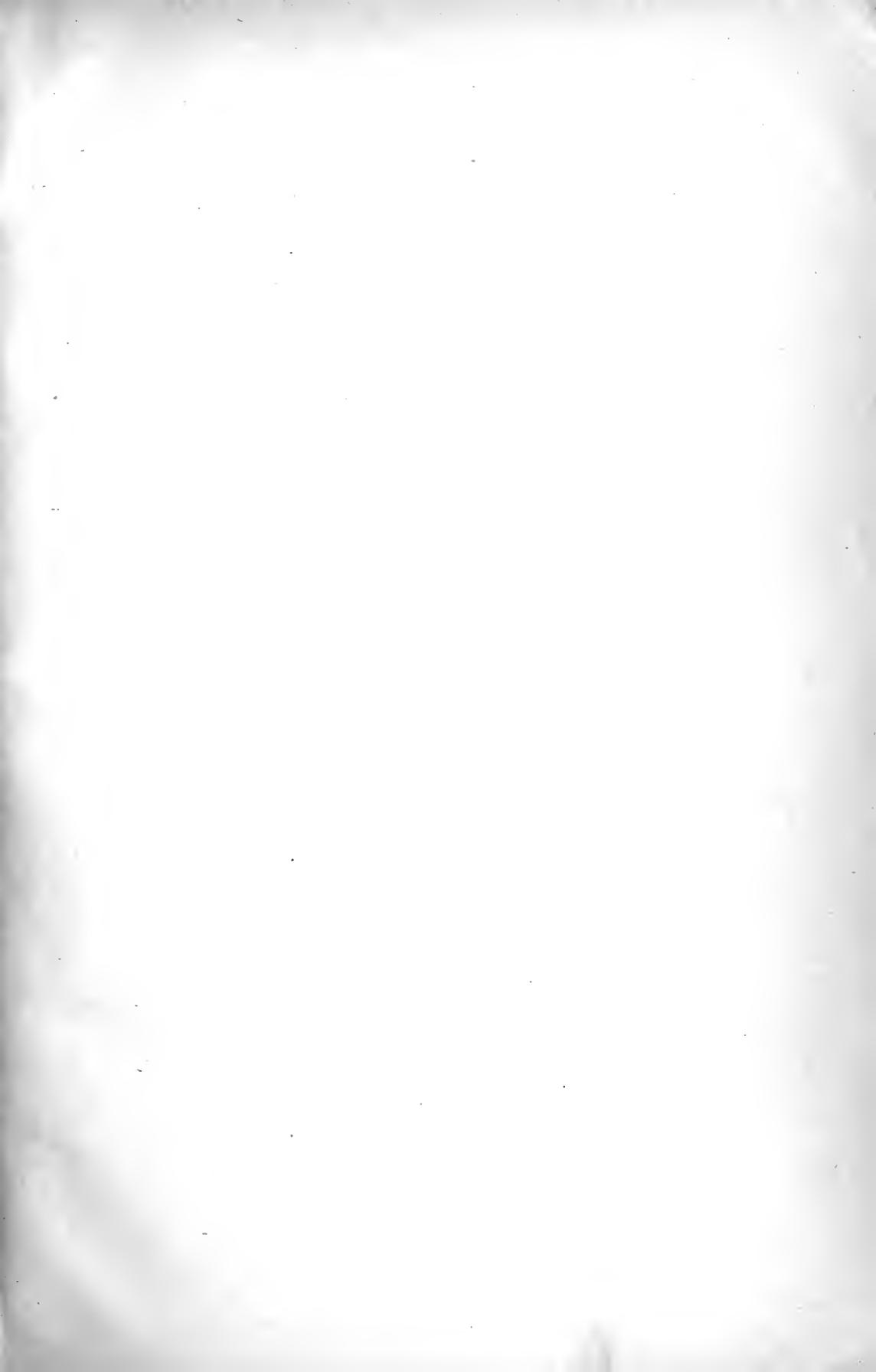
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THE
PHILADELPHIA
Photographer.

AN ILLUSTRATED MONTHLY JOURNAL,
DEVOTED TO PHOTOGRAPHY.

EDITED BY EDWARD L. WILSON.



PORTRAIT OF DR. ROBERT SHELTON MACKENZIE, FROM A PHOTOGRAPH BY F. GUTEKUNST.
(IVES' PROCESS.)

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SUMMARY OF CONTENTS.

	PAGE	
Our Nineteenth Year,	1	
Obituary,	2	
The Photographic Times, 1882, Club Rates with the Philadelphia Photographer,	3	
Photographic Mosaics, 1882,	4	
Our Picture,	4	
A. M. Collins, Son & Co.'s New Warehouse,	6	
Cheap Picture-Making, and How to Stop It,	6	
Indianapolis,	8	
Voices from the Craft,	8	
The Positive Bath Again,	9	
A Screen or Reflector, By JAY DENSMORE,	10	
The Relative Position that Printing and Toning Hold to the Making of Negatives and Other Parts of Photographic Work. By A. N. HARDY,	11	
To Keep Tally Conveniently. By GEORGE PINE.	11	
		How to Make Good Use of Overprints. By KARL KLAUSER, 11
		Diffusion of Focus in Portrait Lenses. By J. A. W. PITTMAN, 12
		A New Shutter. By WILLIAM R. WRIGHT, 12
		Outside Screens. By M. P. BROWN, 13
		A Few Leaves from My Diary. By A. R. GOULD, 13
		Have Things Handy. By J. A. FRENCH, 14
		"Dry" Chips. By GEO. SPERRY, 14
		A Good Mountant. By H. LISTER, 15
		A Few Words on Retouching. By F. A. HART- FORD, 15
		Society Gossip, 16
		Answers to Questions to the Craft, 25
		French Correspondence. By LEON VIDAL, 27
		German Correspondence. By DR. H. W. VOGEL, 30
		Editor's Table, 32

EMBELLISHMENT.—The Sisters. Negatives from W. D. OSBORNE'S Picturesque Foregrounds,
and by GILBERT & BACON, Philadelphia.

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HANCE'S SPECIAL SPECIALTIES.
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HYATT, H. A. Photo. Requirements, etc.
IMPROVED PHOTOGRAPH COVERS.
LANTERN JOURNEYS.
MAGEE & CO., JAS. F. Photographic Chemicals.

MOSAICS, 1882.
MOORE, ALBERT. Solar Enlarger.
NEW CATALOGUE of Lanterns and Lantern
Slides.
PAXSON, I. Solar Printer for the Trade.
PEARLESS ALBUMEN PAPER.
PHILADELPHIA CARTE ENVELOPE.
PHOTOGRAPHIC COLORISTS' GUIDE.
PHOTOGRAPHIC PUBLICATIONS.
PHOTOGRAPHER TO HIS PATRONS.
PICTORIAL EFFECT IN PHOTOGRAPHY.
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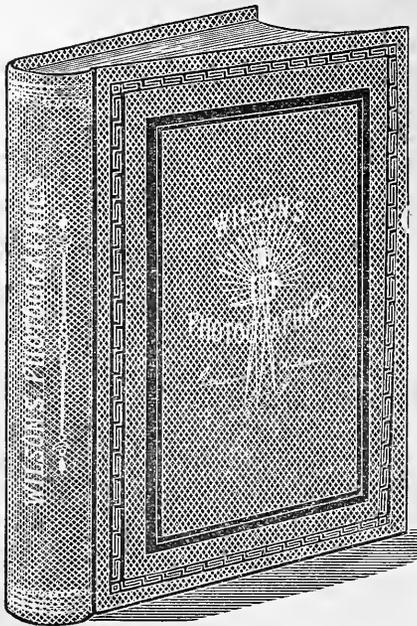
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 Loss of, from the Paper.
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 Alum, Treatment of the Prints with.
 Angle of View possible with a Lens.
 Angular Composition.
 Aniline Blue for Pure Whites in Prints.
 Apparatus, Dry-Plate for Landscapes.
 Arrangement of Drapery, Raphael's.
 Art among Photographers, and Art Rules.
 Principles applied to Photog.
 Artificial Light for Solar Print-
 "Artotypes." [ing].
 Atmospheric Effect.
 Backgrounds.
 Frames for.
 How to Make and Paint.
 Bath, Boiling down the.
 Decolorizing the Printing.
 Fusing the.
 Rectifying the.
 Removing Albumen from the.
 Te-ting the Strength of the.
 The Fixing.
 The Nitrate.
 Troubles.
 Black and White Negatives.
 Blistering of Prints.
 Blueness of the Film.
 Bold Prints from Flat Negatives.
 Breadth of Effect.
 Brilliancy in a Photograph.
 Bromo-Gelatin Emulsion Work.
 Alkaline Developer for.
 Calculations, Table for.
 Carbutt's Cruet for.
 Chemicals for.
 Development of.
 Drying the Plates.
 Exposure of.
 Fogging of.
 Filling of.
 Intensifying.
 Printing.
 Rapidity of.
 Reducing.
 Retouching and Varnishing.
 Spreading the Gelatin.
 Strengthening.
 Washing.
 Burnishing the Prints.
 Camera, Care of the.
 How to tell a good.



Card-Board, Cockling of the.
 Cheapness.
 Chemicals and Solutions, The.
 Chemistry of Out-Door Formule.
 Chiaro-Oscuro, or Light and Shade.
 Chloride of Gold, Saving.
 of Silver, into a Metallic State.
 Clouds and Sky, The.
 in Out-Door Views.
 Printing in.
 Collodion Bromized.
 Changes.
 Double Iodized.
 for Hot Weather.
 for Interiors.
 Intense.
 Out-Door, Water In.
 Troubles.
 Collodion Transfers.
 Coloring.
 Gelatin Paper for.
 Iodizers for.
 Printing.
 Collodionizing the Plate.
 Color, Good, Printing for Negatives.
 Composition, Angular.
 Circular.
 Pyramidal.
 Concluding Confab.
 Contraction and Expansion of
 Paper.

Contrasts, Violent.
 Correctness and Comparison.
 Curtains for the Studio.
 Dark-Room, The.
 Dark-Tent, The.
 Defective Toning of Prints.
 Defects and Dryness of Albumen Paper.
 Dense Negatives, Printing.
 Developer, The Iron.
 The Iron and Ammonia.
 Development, The.
 Best Rule for the.
 Diaphragm.
 Use of the. [Printing.
 "Doctoring" Negatives for
 Drapery, Raphael's arrangement of.
 Drying-Box for Phototype
 Plates.
 Cupboard for Emulsion
 Plates. [Plates.
 Cupboard for Phototype
 Oven for Phototype Plates.
 Room, The.
 the Paper.
 the Prints.
 Vogel's Collodion Emulsion.
 Education of Photographers.
 Effect, Breadth of.
 Effects, Brilliant.
 of Light.
 Eucastic Paste for Prints.
 Enlargements and Lantern Slides.
 Enlarging Carte-de-Visite Negatives.
 Exposure for Phototype Plates.
 for Platinotypes.
 of Bromo-Gelatin Plates.
 Shortening.
 Time of.
 Eye, Education of the.
 of the Sitter.
 Faces, The Study of.
 Fading of Prints.
 Ferrous-Oxalate Developer, The.
 Field Work.
 Figures in.
 Foreground Study in.
 Film, Blueness of the.
 Weakness of the.
 Filtering Albumen for Phototypes.
 Gelatin for Phototypes.
 Finishing and Mounting.
 Fixing.
 Flat Negatives, Printing.
 Flatness and Want of Contrast.
 Fogging.
 Formation of Network on the Film.
 Fumes, Poisonous.
 Fuming the Paper.
 Fusing the Bath.
 Glace Prints.
 Glass, Preparation of the.
 Studio, The.

Gold Toning-Bath, Treatment of the.
 Gun-Cotton, The.
 Hands, The.
 Stains on the.
 Harmony.
 Horizontal Lines.
 Husnik's Process for Phototypes.
 Intensifier, The.
 Ammonia and Mercury.
 Bichloride of Mercury.
 Ferrid Cyanide.
 Iron and Acid.
 Perchloride of Iron.
 Permanganate of Potash.
 Pyrogallic Acid.
 Schlippe's Salts.
 Silver and Acid.
 Interior Work.
 Kaolin, Rectifying Printing-Bath with.
 Landscape Apparatus.
 Photography.
 Views, Formula for.
 Lantern Slides and Enlargements.
 Leaking of the Glass Study.
 Lens or Objective, The.
 Lenses, Angle of View Possible with.
 Choice of.
 Forms of.
 Light and Accessories.
 and Shade, or Chiaro-Oscuro.
 Reflected.
 Lighting, Rembrandt's Style of.
 "Lightning" Processes.
 Linen, Printing on.
 Lubricating the Prints.
 Managing the Model.
 Manipulations, The.
 Manipulatory Miseries.
 Marbled Appearance of the Paper.
 Red Lines on Prints.
 Meakiness in Prints.
 Measles or Mottles on Prints.
 Measuring Metrical.
 Medallion Printing.
 "Megatypes."
 Metallic Spots in Prints.
 Model, Study the.
 Mounting and Finishing.
 Paste.
 without Cockling.
 Nature, Study.
 Negative, A Generally Wretched.
 Negatives, Black and White.
 Defects in.
 "Doctoring" for Printing.
 for Solar Printing.
 Preserving of.
 Printing Dense.
 Printing Weak.
 Removing Stains from.
 Network, Formation on the Film of.
 Objective or Lens, The.
 Objects, Distances of.
 Only Lines in Negatives.
 Opaque for Negatives, Gihon's.
 Outside Photography.
 Chemistry of.
 Work, Art Principles in.
 Work, Clouds in.
 Work, Exposure.
 Work, Keeping Plates for.
 Work, Tent for.
 Over-Exposure of Bromo-Gelatin Plates.
 Paper, Cockling of the
 Drying the.
 Expansion and Contraction of.

Fuming the.
 Keeping White the.
 Marbled Appearance of the.
 Sensitizing the.
 Woolliness of the.
 Paste for Mounting.
 Patches and Stains on Prints, Yellow.
 Perplexities, Printing.
 Perspective.
 Photography, Landscape.
 Phototypes, Basis for.
 Exposure of the Negatives for.
 Husnik's Substratum for the Plates for.
 Inking the Films for Printing.
 Pinholes.
 Plain Paper, Printing on.
 Platinotypes, Sensitizing the Paper for.
 Cleaning and Washing.
 Development of.
 Exposure of the Paper.
 Poisons.
 Porcelain, Printing on.
 Posing, Suggestions about.
 Preserving Negatives.
 Printing, Art in.
 by the Solar Camera.
 Dense Negatives.
 Development Process of.
 Flat Negatives.
 Medallions.
 on Albumen Paper.
 on Various Surfaces.
 Stereoscopic Views.
 Temperature in.
 Vignettes.
 Weak Negatives.
 Printing-Bath, The.
 Decolorizing the.
 Strengthening the.
 Printing-Room, The.
 Prints, Acidifying the.
 Blistering of the
 Burnishing the.
 Defectively Toned.
 Drying the.
 Eneustic Paste for.
 Fading of the
 Fixing.
 Glace.
 Imperfect Washing of the.
 Lubricating.
 Measled or Mottled.
 Metallic Spots in.
 Refuse to Tone.
 "Spotting" the.
 Touching Out.
 Treatment with Alum of the.
 Trimming.
 Warm-Water Washing of.
 Washing in "Lead Water."
 Washing the.
 With Red Marbled Lines.
 Yellowness of the.
 Productions of Photography, The.
 Public, Relation of the Photographer to the
 Pure Whites in Prints.
 Quick-Acting Processes.
 Red Patches on Prints.
 Reducing Process for Solar Negatives.
 Reinforcing the Negatives.
 Rembrandt's Style of Lighting.
 Removing Stains from Negatives.
 Retouching Bromo-Gelatin Plates.
 Process, Solar Negative.
 weak Negatives.

Reversing the Negative, Apparatus
 Robinson's Print Trimmer. [for.
 Screens and Curtains.
 Sensitizing Paper for Platinotypes.
 the Paper.
 the Plate.
 Shortening the Exposure.
 Silver Iodide, to make.
 Saving, Method of.
 Solutions, Volumetric Test of.
 Sky and Clouds, The.
 Softness in Lighting.
 Solar Camera Printing.
 By Artificial Light.
 Camera Printing Negatives, re-touching.
 Negative Reducing Process.
 Retouching Process.
 Stains from Negatives, Removing.
 on the Hands.
 Stereoscopic Views, Printing.
 Negatives Preparing.
 "Stop," Use of the.
 Streaks and Stains in Negatives.
 Strengthening Gelatin Emulsion Plates.
 the Printing-Bath.
 Studio, the Glass.
 Construction of the.
 Curtains.
 How to Build a.
 Leaking of the Glass.
 with Curved Light.
 Working Plans for Construction.
 Subject, Choice of.
 Treatment of.
 Table for Converting Centigrado into Fahrenheit.
 for Converting Cubic Centimetres into Ounces, etc.
 for Converting Metrical to Troy Millimetres into Inches, etc.
 Temperature in Printing.
 Tent, The Dark.
 Testing of Silver Solutions.
 Toning the Prints.
 Bath, Treatment of the Gold.
 Defective.
 Solutions.
 Touching out Prints.
 Transfers, Collodion, Iodizers for.
 Coloring.
 Developer for.
 Fixing.
 Gelatin Paper for.
 Printing.
 Transparencies, Bromo-Gelatin.
 for the Magic Lantern, To make.
 Treatment of the Subject.
 Use of the Diaphragm.
 Varnishes and Varnishing.
 Ventilation of the Dark-Room.
 Views of Interiors.
 Collodion for.
 Exposure for.
 Figures in.
 Light for.
 Selection of.
 Vignette Printing.
 Paper, Waymouth's.
 Printing Attachment, Singhi's.
 Vogel's Collodion Emulsion.
 Warm Water for Washing Prints
 Wash-Room for the Prints.
 Wastes and their Worth.
 Waymouth's Vignette Papers, Use of.
 Weakness of the Film.
 Woolliness of the Paper Surface.
 Yellowness of the Prints.

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OUTFIT No. 202, complete, price \$27.00, consists of a FOLDING MAHOGANY CAMERA for taking 4 x 5 pictures, same style as 201 Camera; also, 1 Patent Double Dry-Plate Holder; 1 Canvas Carrying Case; 1 Taylor Folding Tripod.

OUTFIT No. 203, complete, price \$41.00, consists of a FOLDING MAHOGANY CAMERA, fully described in American Optical Company's Catalogue, and well known as the '76 Box. It is adapted for taking 5 x 8 pictures, and also for taking stereoscopic views, together with 1 Patent Double Dry-Plate Holder; 1 Canvas Carrying Case; 1 Taylor Folding Tripod.

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are the best made, and answer the demand in dry-plate work for something that will exclude all light. Prices of EXTRA Patent Double Dry-Plate Holders are as follows:

4 x 4 Holders, for two Plates,	each, \$3 00
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For a choice of Lenses suitable to these Outfits, see next page.

MORRISON'S Wide-Angle View Lenses.

PATENTED MAY 21st, 1872.

These Lenses are absolutely rectilinear; they embrace an angle of fully 100 degrees, and are the most rapid *wide-angle* lenses made. We recommend them for use with the foregoing outfits.

Price of Morrison's Wide-Angle Lenses.

No. 1, $\frac{3}{4}$ Diam. of Lens,	4 x 4 in. Plates,	3 in. Equiv. focus.	Price each,	. \$25.00
No. 2, 1 " " "	4 x 5 " " "	$3\frac{1}{2}$ " " "	" " "	. 25.00
No. 3, 1 " " "	$4\frac{1}{2}$ x $7\frac{1}{2}$ " " "	$4\frac{1}{4}$ " " "	" " "	. 25.00
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They are entirely different, in many particulars, from any other lenses in the market. They are 6 inch focus and $1\frac{1}{4}$ inches in diameter, and are, of course, made in matched pairs, with a set of diaphragms also for 5 x 8 views.

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[See next page.]

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5½ x 4½ " . 1 25	10 x 8 " . 4 50	22 x 18 " . 22 00
6½ x 4½ " . 1 60	12 x 10 " . 6 50	24 x 20 " . 28 00

Full Directions for Use Accompany each Package of these Plates.

DIRECTIONS FOR USE.

Precautions as to the Light by which these Plates are to be Unpacked and Developed.—It should be of a *deep-red, orange* color ruby glass or Carbutt's Translucent Ruby Paper, using one or more thicknesses to cover a window, or one sheet to cover the front of a suitable box-lantern, using as a light either gas or oil lamp. *Do not stint the quantity of light, only let it be of the right quality, i. e., dark orange red,* to the exclusion of every ray of *white* light.

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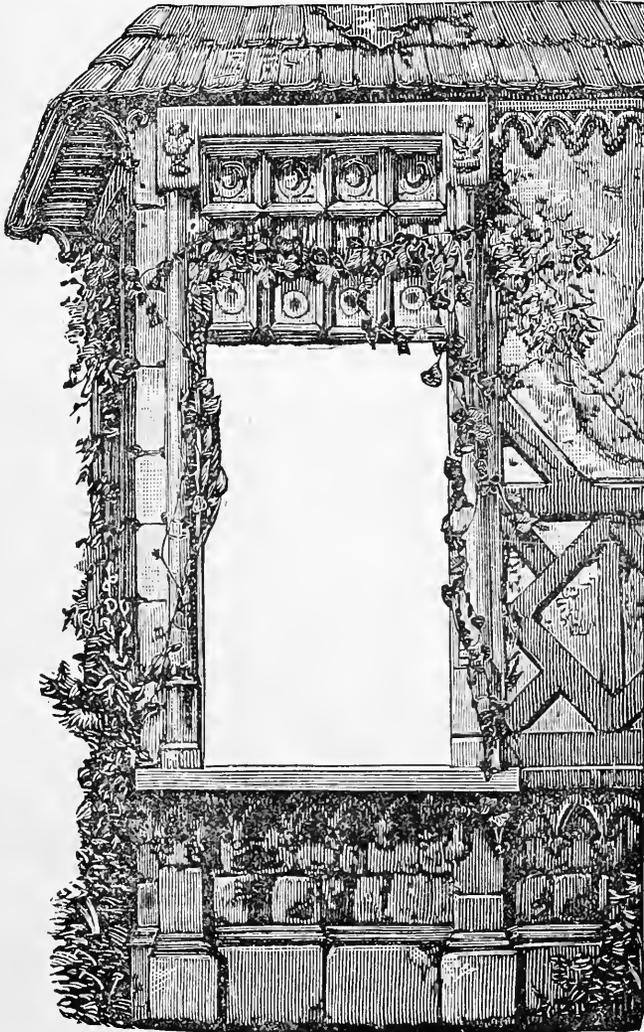
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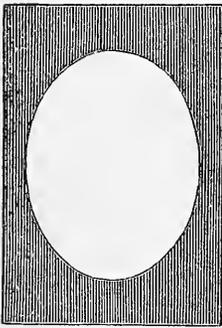
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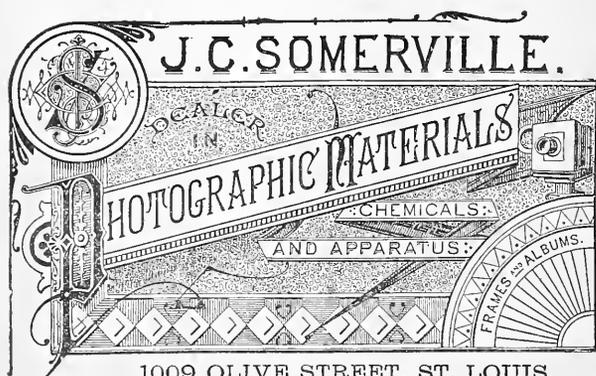
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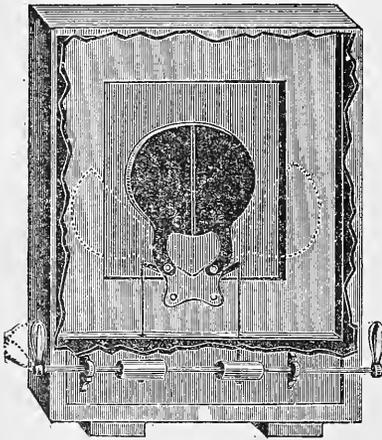
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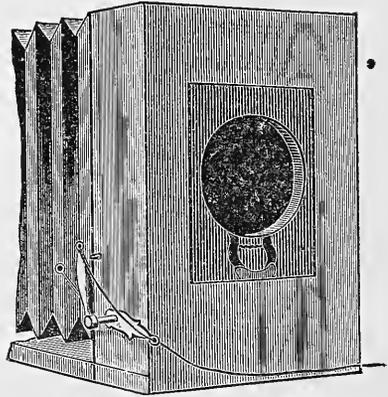
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VOLUME XIX.

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PHOTO-ENGRAVINGS WOODCUTS, ETC.

	PAGE		PAGE
Osborne's Foregrounds.....	5	Instantaneous Shutters.....	153
A Screen or Reflector.....	10	Sensitometers.....	155
A New Shutter.....	12	Sketch by H. P. ROBINSON	230
Smith's Emulsion Apparatus.....	17, 18	Sound and Color, The Analogy between.	
Platt's Emulsion Warming Box.....	111	By G. G. FINN.....	338
Illustrative of Primary Colors.....	120		

CONTENTS.

	PAGE		PAGE
Associations and Conventions.....	135	Emulsion, To Simplify the Manipulation	
And What For 1883?.....	353	of Vogel's.....	62
An International Photographic Association.		Echoes from the Orient...65, 98, 131, 161,	
LEON VIDAL.....	368	193, 225, 358	
A Few Hints. J. H. SCOTFORD.....	380	Egypt, News from.....	90
A Whole Lot of Things. A. E. ISAACS....	381	Emulsion, A Warming-box for. S. L. PLATT	111
Book, A New.....	69	Experiences in the East, Photographic.	
Beginner, Advice to a. JNO. C. BROWNE...	73	WM. H. RAU.....149, 181, 198, 243,	342
Brigand, The Imaginary. W. B. WOOD-		Emulsion Plates, Spots on Washed.....	175
BURY.....	125	Edinburgh Photographic Society.....	243
Books, New.....	126, 178	Egypt, A Yankee in.....	246
Baths, Rectifying Negative.....	151	Ebers' Egypt.....	328
Bibliographic.....	346	French Correspondence. LEON VIDAL...27,	
Collins, A. M., Son & Co.'s New Warehouse	6	57, 87, 121, 156, 186, 222, 334	
Cheap Picture Making and How to Stop it.		Foreign Briefs.....	51
J. H. SCOTFORD.....	6	Frilling of Gelatine Plates, The.....	69
Cameras, A Hint on Tourists'. INQUIRER..	72	Foreign Items.....	146
Collodion together, How to put. O. PIERRE		Fripped Negative, Utilizing a.....	324
HAVENS.....	72	From the Transit of Venus Expedition....	372
Chance for an Inventor, a. R. E. WOOD... 137		German Correspondence. DR. H. W. VOGEL	
Caverns of Luray, Photographing in.....	172	30, 60, 86, 153, 189, 220, 332, 368	
Copper, Photography on.....	179	Gelatine Dry Plates. JNO. C. BROWNE....	107
Cameras, Examine your. D. ROBERTSON... 210		Gelatino-chloride of Silver Pictures by De-	
Diffusion of Focus in Portrait Lenses. J.		velopment.....	174
A. W. PITTMAN.....	12	Gelatine Plates, Ferrons-oxalate Developer	
Diary, A Few Leaves from my. A. R.		for. JOHN CARBUTT.....	206
GOULD.....	13	Gelatine Bromo Workers—A hint or two.	
Dr. Vogel's New Book.....	362	B. W. KILBURN.....	240
Dry Chips. GEO. SPERRY.....	14	Have Things Handy. J. A. FRENCH.....	14
Daguerre, A Monument to.....	37	Hyposulphite. J. E. BEEBE.....	198
Dry Plates, Some Hints on the Working of.		Home Again.....	225
THOMAS CHARLES.....	147	How they do things in French Societies....	346
Dry Plate Gush. R. D. CHAPMAN.....	325	Indianapolis.....	8, 225
Delving Among the Developers.....	376	Intensification with Gallie Acid and Silver	62
Developer, A Simple. DAVID COOPER.....	371	International Association, An.....	240
Economy in Washing Prints. R. A. KEN.		Indianapolis Convention, The.....	336
DALL.....	376	Know Its.....	250
Editor's Table.....32, 63, 94, 127, 160, 191,		Lantern Slides by Reduction in the Cam-	
224, 255, 288, 319, 347,	382	era, Gelatine. S. M. FOX.....	70
Emulsion, On Washing Gelatine. WM. ENG-		Lantern, A New Dry Plate.....	116
LAND.....	41		

	PAGE		PAGE
Leisure Time. E. WALLACE, JR.....	123	Picture Making with Mr. H. P. Robinson. H. BADEN PRITCHARD.....	229
Mosaics, Photographic, 1882.....	4	Photo-engraving on Zinc, etc. LEON VIDAL	247
Mountant, A Good. H. LISTER.....	15	Price Conundrum, The. M. H. ALBEE.....	252
Magic Lantern Transparencies. ELLERSLIE WALLACE, JR.....	39	Photographer's Association of America, Convention.....	257, 289
MISCELLANEOUS	91	Photographers, A Suggestion to.....	317
Mechanical Dictionary, Knight's New Am- erican.....	330	Photographic Chips. INQUIRER.....	327
Our Nineteenth Year.....	1	Plaque, The	344
Obituary.—Dr. R. SHELTON MACKENZIE....	2	Questions to the Craft, Answers to...25, 52, 83, 115, 144,	232
Prof. JNO. W. DRAPER.....	34	Questions, Summary of.....	170
ALPHONSE POITEVIN.....	98	Retouching, A Few Words on. F. A. HART- FORD.....	15
J. H. FITZGIBBON.....	257, 315	Removal	45
Dr. VAN MONCKHOVEN.....	354	Rives Paper Manufactory, The.....	101
Our Picture.....4, 33, 65, 97, 129, 220, 251, 287, 317, 321,	376	Ruby Glass, Throw away your. W. C. TAYLOR	119
Over Prints, How to make good use of. KARL KLAUSER.....	15	Reflector, A Useful. JAY DENSMORE.....	327
Our Report.....	257	Screen or Reflector, A. JAY DENSMORE... Shutter, A New. WM. R. WRIGHT.....	10 12
Positive Bath Again, The. JNO. R. CLEMONS	9	Screens, Outside. M. B. BROWN.....	13
Printing and Toning hold, The relative positions that. A. N. HARDY.....	11	Society Gossip.....16, 45, 74, 118, 138, 176, 211, 240, 345,	374
Prints from their Mounts, Removing.....	38	Success, Elements of.....	35
Photographers <i>versus</i> Artists. D. BACH- RACH, JR.....	356	Shutters, Instantaneous. CHAS. R. PAN- COAST	142
Photography, Considerations on the Pres- ent Status of.....	42	Stripping the Negative Film.....	207
Photographic Mosaics, 1883.....	354	Stick together	218
P. A. of A., Pertaining to the.....90, 111, 140, 169, 216, 254,	337	Stock Dealers' Association, Photographic..	314
Paris Exposition, 1878, Report of U. S. Commissioners to the.....	92	Thoughts about Gelatine Plates. Dr. E. WALLACE, JR.....	358
Photographic Society of Phila., Exhibition of the.....	103	Times, The Photographic, 1882.....	3
Photographic Society of Phila., Annual Excursion.....	213	Tally, To keep conveniently. GEO. PINE... "Tropical," How to Make any Dry Plate. D. BACHRACH, JR.....	11 324
Praise from the Press.....	367	Transit of Venus, The coming. WM. BELL	340
Printing, Combination.....	103	The Growth and Outgrowth of Amateur Photography.....	371
Prices. R. E. WOOD.....	117	Voices from the Craft.....8, 253, 373	
Poitevin, Alphonse. LEON VIDAL...130, 165,	202	Vogel's "Progress of Photography since 1878".....	346
Proofs from Portrait Negatives.....	145		
Pyramidal Perambulations.....	225		

1857
1858
1859
1860
1861
1862
1863
1864
1865
1866
1867
1868
1869
1870
1871
1872
1873
1874
1875
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F. B. CLENCH.

LOCKPORT, N. Y.

THE PLAQUE.

Patented October 10, 1882.

Boston Public Library.

T H E

Philadelphia Photographer.

EDITED BY EDWARD L. WILSON.

Vol. XIX.

JANUARY, 1882.

No. 217.

OUR NINETEENTH YEAR.

MAY it be a *happy one* to one and all whose eyes may scan these pages. It seems but the other day when, in consultation with our co-partner, some eighteen years ago, we resolved to begin our career as publishers, and to produce for the photographers a magazine which we hoped would instruct and defend them and help them to prosper. A great deal of timidity accompanied our resolution, and we are free to confess that it has never forsaken us. We have always been conscious of the responsibility which we have taken upon ourselves, and each year our work grows. And as our art grows with us, we feel more and more the necessity of the best care and the most diligent study and the greatest attention to the interests of those who look to us for information; but as our courage has always held out, we hope it will be granted to us for another year to serve acceptably those who think well enough of our efforts to patronize them. In our last number we declared our intentions for the year 1882, and shall make all the effort possible to carry out the programme fully. No point that is of value to the practical, working photographer shall be overlooked. We can say this with more assurance because our connections at home and abroad enable us to secure for our readers, at the earliest possible date, all of progress and interest in our art.

Photography is making very rapid progress now in many directions, and is becoming more and more a helper in science and art and industry.

All we need to hold our own and to make progress, is to keep ourselves informed, and to show enterprise in developing whatever suggestions are made for the growth of our art, and for the production of better results. Then we are sure, too, to make our light shine and to make our pockets heavier. We have often felt that the same amount of effort which we expend upon the *Philadelphia Photographer* might be used in some other direction and produce us more of gain; but we love our art. We are interested in those who have looked to us for so many years for instruction and help, and who have given us their social and fraternal attentions, and therefore resolve to go on with them in the work which we have undertaken. We strive always to make our magazine the best we know how. We wish that this department, at least, of our work could be separated from the bread-and-butter interest, but this cannot yet be; so we have sent out order-sheets and our announcement for the new year, and beg that those who have not already done so, will give them their careful attention. Our interests are mutual. We must all live, therefore it is not out of place for us to say, "Please send us your order-sheets as well filled as you can afford, and send them early, in order

that we may know what quantity to print." Each year our numbers are at a premium because the quantity printed gives out, and those who feel the need of them later in the year make their demand after the supply is gone. Any man who takes a magazine at all should have it as soon as his neighbor, if he would share fully the advantages of it. Please, therefore, read our prospectus again, and let us hear from you at your convenience—soon, if possible.

OBITUARY.

As announced briefly in our last issue, Dr. R. Shelton Mackenzie, one of the most distinguished literary characters of our land and time, died at his home in Philadelphia, on Monday, November 21st, after a short illness. Those of our readers who possess the first number of this magazine, published in January, 1864, will, by reference, find that the first article therein on photography, was written by our good friend Dr. Mackenzie. Previous to the advent of this journal, we had received from him that inspiration which caused us to become its conductor. We had long been a learner at his feet, and among the favored few, were permitted free access to his sanctum sanctorum. He was always a great lover of photography, and many times during our editorial career has lent us a helping hand in matters concerning which we were uninformed, or in doubt. Moreover, in all these years intervening, he has allowed but few issues of this magazine to appear without some kindly notice in the daily papers of which he has been the literary and foreign editor. But a short time previous to this writing, he called at our office, and enlivened us with his wit and his kindly words, and left after him an atmosphere of hearty gratitude for the acquaintance of one so talented and so genial, and so kind. We shall miss him much, for we have always looked upon him as a sort of *reserve power* to which we could apply in time of distress and need. He was our *alma mater*, editorially, the instructor of our youth, and the helper of all our literary life. It is but proper, therefore, since we know that many sympathize with us in our sorrow over his death, that

we should follow with a sketch of his life. We make it up from some of our daily papers. Those who think, will learn from this how useful one life may be, and how much one man can do for the improvement and help of his fellow-man; and yet all this is nothing compared with the work which Dr. Mackenzie did *between times*. Many happy remembrances have we of evening companies, where a few favored ones were gathered together—artists, physicians, literary characters, and teachers—in genial conversation over matters pertaining to the improvement and assistance of mankind in general, to say nothing of the entertainment and amusement had therefrom. We can never forget them, or ever cease to be benefited by them. Now all that we can do is to sorrow, and wish that those happy days and such a noble, useful life, had not been brought so soon to an end. On our cover will be found a good portrait of our lamented friend.

Dr. Robert Shelton Mackenzie, the well-known author and journalist, was for over twenty years connected with Col. Forney's *Press* as literary and foreign editor, and more recently occupied this same position on the *Evening News*. Deceased had been a sufferer from Bright's disease of the kidneys for several years, but was able to be about and perform his usual quantity of literary work until a day or two before his death, when his disease assumed a serious aspect, requiring him to take to his bed, which he did on Friday evening, having been seized with a congestive chill upon his return home. On Saturday and Sunday he was at times unconscious, but on Sunday evening, on the occasion of a visit of an intimate friend, he rallied, and spoke hopefully of being able to resume work shortly. Later in the night his symptoms took an unfavorable turn, ending in his death.

Dr. Mackenzie was born in the County Limerick, Ireland, in 1808, and was the second son of Captain Kenneth Mackenzie, author of a volume of Gaelic poetry, published in Glasgow in 1796. When his primary education was completed, he entered the medical department of the University of Dublin, graduating thence as doctor of medicine after the usual course of studies,

but never devoting himself to the practice of his profession, the life of a literary man being more in accord with his tastes. As early as his eighteenth year he had become connected with an English newspaper as correspondent, and was similarly engaged in various localities until 1845, when he became the London Secretary of a railroad company, and held the position until 1851, when the company dissolved. Meanwhile his leisure time was employed in contributing largely to leading periodicals in England and America. From 1834 until the cessation of the New York *Evening Star*, he was the regular European correspondent of that journal, and the first salaried correspondent of the American press. His abilities, and the value of his literary productions at this time, attracted general attention, and won for him from the University of Glasgow, in 1834, the degree of LL.D., and from the University of Oxford, in 1844, the degree of D.C.L. In 1848, he published *Lays of Palestine*, and wrote a considerable portion of the *Georgian Era*, in 1852-54. He subsequently produced *Titian, a Venetian Art Novel*, 3 vols., in 1843; a *Life of Guizot*, prefix to a translation of *Democracy and its Mission*, in 1846; *Partnership*, a legal commercial work, in 1847; and *Mornings at Matlock*, a collection of stories, in 3 vols., in 1850. In 1852 he came to the United States and settled in New York, where he immediately became connected with the newspaper press, and also edited, in 1854, with copious notes and original biographies of the authors, *Sheil's Sketches of the Irish Bar*, 2 vols., and the *Noctes Ambrosianæ*, of *Blackwood's Magazine*, 5 vols.; De Quincey's *Klosterheim*, and the *Life of Curran*, in 1855; Lady Morgan's *O'Briens and O'Flaherties*, 2 vols., in 1857; Dr. Maginn's *Miscellaneous Works*, 5 vols., in 1855-57. He has also published, since his arrival in the United States, *Bits of Blarney*, in 1855; *Tressilian and his Friends*, in 1857, and new editions of several of his former works. In August, 1857, upon the establishment of the *Press* by Colonel John W. Forney, he became the literary and foreign editor of that journal, maintaining his connection therewith during all of Col.

Forney's twenty years of proprietorship, and for a year or two longer, when he assumed a similar position on the *Evening News*, which he occupied at the time of his death. As a general writer, he possessed a vast fund of information, and his easy and graceful style and intimate acquaintance with the subjects treated of by him, as well as his accuracy regarding facts and dates, and fairness as a critic, rendered his writings more than ordinarily entertaining and instructive. He was an indefatigable worker, and, besides his daily routine of duty on the journals with which he was connected, did a vast quantity of literary work as contributor to magazines and periodicals, and in preparing the works of others for publication. He was a genial, kindly companion, and a member of several public literary and benevolent associations. He leaves a wife and four grown-up daughters to mourn his death, as well as a brother, in Paris, who is the editor of Galignani's *Messenger*.

THE PHOTOGRAPHIC TIMES, 1882,

CLUB RATES WITH THE PHILADELPHIA PHOTOGRAPHER.

WE have again concluded arrangements with the Scovill Manufacturing Company, New York, publishers of the *Photographic Times and American Photographer*, by which we are enabled to offer that excellent magazine and our own for \$5.50 per annum. Cheaper and better photographic reading and instruction are not to be had.

The *Times* is almost as large as our own magazine, and is full of excellent matter. Its subscription price is \$2 per annum, but those who receive it through us really may secure it for 50 cents.

Every subscriber to the *Philadelphia Photographer* should be sure to add enough for the *Times* for 1882.

<i>Philadelphia Photographer</i> , . . .	\$5.00
<i>Photographic Times</i> ,	2.00
<i>Mosaics</i>, . . . . .	.50
<i>Wilson's Photographics</i> ,	4.00
	\$11.50

All to one address for \$10. See advertisements.

PHOTOGRAPHIC MOSAICS, 1882.

WE do not believe that the history of any photographic work will prove such an unprecedented sale as *Photographic Mosaics* for 1882 has had. Before a book was seen by its editor, above three thousand copies were demanded by the trade. The day it came from the binder made a busy scene in the office of its proprietor. Very few of our leading stock-dealers failed to order one hundred copies, some of them as many as two hundred and fifty copies. They were sent east and west and north and south, it being our rule always to send them in all directions at one time, that all dealers may receive them on or about the same day.

It would not be consistent in us to refer to one article as being of more service than another, since the contributions of our generous friends are sent to us as works of love, but we do think that the issue of *Mosaics* for this year contains some of the best contributions of photographic literature that we have ever had the pleasure of publishing. From the beginning to the end of *Mosaics* there is one grand round of practical information. The list of the articles is given in brief on the fourth page of the cover, but it by no means gives an idea of the value of the articles themselves. A considerable number of them are devoted to the new emulsion process proper, and we are very glad to know that such is the case. We have issued the little book almost a month earlier than usual, and for this reason, although we notified our friends of our intention thus to do, a number of articles came too late for its pages, and were crowded out. Some of these we gave to our readers last month, and we continue the good work in this issue. We have tried to print sufficient copies for the demand this year, and still have a supply, but there is danger of it being taken up pretty soon, and those who expect to derive benefit from *Mosaics* at all, should have it as soon as their neighbor gets it, lest he obtain knowledge that they do not have, and get ahead. Were the work all our own it would be immodest in us to say so much about it, but as many of our friends are concerned with us, we are free

to commend it as a very valuable contribution to photographic literature.

One contributor writes: "It certainly does not 'spoil by keeping,' and is better than any of its predecessors." Another writes: "It is as snappy as ever."

OUR PICTURE.

UPON the cover of our last number we presented our readers with two little studies made from photographs by the Ives process, and showing the application of Mr. W. D. Osborne's Picturesque Foregrounds. At the same time we promised that this month our readers should see the photographs from which these little gems were made. We are happy in being able to keep our promise. The young misses who were good enough to sit for the negatives from which the originals were made are closely related to the editor of this magazine, which fact is not mentioned because of the pride of the fond parent, but in order to show that he considers that there need be no objection to any one sitting for a picture to be used as a study in the *Philadelphia Photographer*, and that it is no breach of delicacy on the part of the editor when he requests such pictures from his co-workers, since he was willing to make this much of a sacrifice of his own family for the good of the craft, and is endeavoring to train up his children in the way they should go. It will be understood by all photographic printers that the negative made at the sitting of the figures is only of the living person or persons, with very few, if any, accessories. In this case a rude bit of furniture was used, merely for the support of the arms of the subjects, and a plain photograph made. The accessories and surroundings were all printed from Mr. Osborne's Picturesque Foreground Negatives. We have for a long time had in the market backgrounds which were printed-in, but here the matter is reversed. The effect we think is very beautiful, and the photo-engravings made from them last month and again inserted in this article for the more convenient comparison with the photographs, are certainly the finest examples of this sort of work that the world ever saw; so that we have combined in our little pic-

tures not only fine specimens of portrait child photography, but two of the most recent applications of improvements in our



art, viz., the engraving process in which photography is the principal means (not one bit of hand-work being done upon the plates),



and a process for the picturesque improvement of the whole. For both of these we are indebted to two of Philadelphia's young and ingenious photographers. As the pre-

sentation of these pictures will doubtless arouse an interest in Mr. Osborne's invention, particularly, we give directions for using his foregrounds:

We will suppose the photographer to have one of these foreground negatives in his possession. Make a print therefrom (on plain paper preferred); this print is not to be toned, as it is used as a mask in printing in the foreground. The next step is to cut out the opening on the inside lining of the door or window in the print made and expose to the light to darken; then fasten the inside mask with a little gum or wax in the centre of the foreground negative, in the same position as when it was printed; the outside may be fastened by sticking paper on the negative of the subject which you wish to represent in the foreground.

First print the negative of the subject, after which remove the print and place it on the foreground negative by holding it up and looking through from the back of the print; a perfect fit can be made, after which the foreground must be printed so that it will harmonize in tone with the print of the subject proper. As the inside mask is likely to stretch, trim off a little to prevent a white line from showing. The foregrounds represented in our pictures are known as No. 6 and No. 7. The one with the awning is No. 6, the other being No. 7. Mr. Osborne has also provided another very useful article for photographic printers, viz., a pedestal negative for producing statuary or statuette photographs. These negatives are made of paper and can be adjusted to the negative of the subject and printed at once. They may also be reversed so as to print right or left, according to the light of the subject. Other matters of information concerning these useful articles will be found in Mr. Osborne's advertisement, elsewhere. The portrait negatives used were made at the studio of Messrs. Gilbert & Bacon, by Mr. Osborne, No. 40 North Eighth Street, Philadelphia. The prints were made on the Trapp & Münch brand of pink paper imported by Mr. Willy Wallach, No. 4 Beekman Street, New York, and are believed to be equal to the usual quality of prints supplied by the *Philadelphia Photographer* to its subscribers. We ought to

say that the pictures were reduced from the original size (which was 8 x 10), and are therefore not quite equal in quality to originals. We trust our readers will find enough happiness in this sort of beginning of their new year of subscription to enable them to excuse whatever immodesty there may be in giving them place as our embellishments so early in our new volume. It will be seen by his advertisements that the Scovill Manufacturing Company, New York, are Mr. Osborne's trade agents.

A. M. COLLINS, SON & CO.'S NEW WAREHOUSE.

No better evidence of the growth of American photography can be found than the immense factory and warehouse of Messrs. A. M. Collins, Son & Co., manufacturers of card-stock, in Philadelphia.

Twenty-five years ago they occupied one floor of a small building in Minor Street, somewhat apprehensive lest a mistake had been made in investing capital in the service of an industry that was not then looked upon as "very respectable" or promising.

On January 1st they will occupy new quarters so extensive as to rival almost any other enterprise in this city. The new location is at No. 527 Arch Street, 25 feet front and extending back 288 feet to No. 522 Cherry Street. The front of the building is of iron and decorative brick-work, and is a paragon of strength, very tasteful, and five stories high. The interior is provided with every convenience for the business, and heated with steam provided by two immense boilers and a twenty-horse power engine.

The basement and the first floor look like the streets of a city, and the whole establishment is a wonder.

And yet this is only the *warehouse* of this prosperous firm, their large manufactory being in the upper section of the city.

No one can doubt the growth of our art when looking at its requirements in the particular line of the enterprising firm named, who are always so ready to meet every desire of the trade.

Photographic Mosaics, 1882, and Wilson's *Photographics* (\$4.50 for the two), make up a good photographic library.

CHEAP PICTURE-MAKING, AND HOW TO STOP IT.*

LANSING, MICH., Sept. 19th, 1881.

FRIEND DOUGLASS: I have been asking the question, "How shall we stop cheap picture-making?" which has become such a baneful evil to the photographic profession. It appears to me to be a question of vital interest, because it is degrading our profession. It is giving the public the impression that good pictures are to be had for a mere pittance, and unless checked in its course, which is downwards, it will soon place the price of work so near the cost of production that not even a living will be in the reach of the painstaking photographer. Photographers here in this place have been making card-photographs for 50 cents per dozen, and claiming to the public that they were making something off them from that price. (They are not now making them for that price, but still too cheap, for they make very good work.) And, unless I am mistaken, you have them in Chicago doing nearly as bad.

Try to disguise it as we may, the better class of photographers are feeling the influence of this cheap competition, and it is something like an anaconda, gathering its coils around them closer every day, and unless they do something for their own protection, they will become crushed in the squeeze.

Then the question comes, "What shall we do to be saved?"

I have given the question a good deal of hard thinking, and I have devised a project which I think, if carried out, will establish a uniformity of prices to a very large extent, and will crush out this cut-throat class of photography (and photographers also). The project may seem visionary at first, but, I think, on mature deliberation, it is not. I have talked over the plan with several photographers, and they agree with me, and have promised to put their names to such a union as I propose.

My plan is: 1. To form a Photographers' Union, which should embrace all the photographers, stock-dealers, and manufactur-

* Read at the December meeting of the Chicago Photographic Society.

ers of photographic goods in this country (and Canada, too, if desirable).

2. Photographers should be obliged to pledge themselves to make no work below a certain fixed schedule of prices.

3. Stock-dealers and manufacturers to pledge themselves to sell no goods, directly or indirectly, to photographers who make work below the agreed schedule.

4. The photographers to agree to trade with no stock-dealer or manufacturer who would not abide by and support the Union.

5. The Union should be subdivided into districts (say of three or four States, as Michigan, Indiana, Illinois, and Wisconsin, with Chicago as its centre), with a secretary at the centre of each district, to whom all complaints of violation of pledges should be sent, and who would be empowered to investigate the charges, either personally or through some agency he should appoint in the vicinity. Charges being found true, the secretary to notify the stock-dealer (or the photographers, in case it be the dealer who violates pledge), who should cease relations with each other until the party violating agreement shall permanently return to schedule rates, etc. A second repetition of offence to debar offender for all future. All the expense of investigation shall be paid from a fund created by annual dues or assessments, as may seem best.

In support of these various propositions, I would adduce the following arguments:

1. Nearly every branch of manufacture has been compelled to form some sort of Union or Association for their protection from inferior or unprincipled competition. As instance, the paper-makers, iron manufacturers, match manufacturers, etc., and the innumerable trades-unions throughout the country. The paper-makers are to-day working under a compact with a *money forfeiture*, which makes it as rigid and binding as the above would on the part of the photographers, etc.; and certainly we have as much need for protection as they had. Our field is, however, much more difficult to organize.

2. I think there are none who would not appreciate a uniformity of prices on a fair basis throughout the country. We would all be benefited by establishing a uni-

form schedule of the lowest price which ought to be asked for our work, and would enable us to lay up a small sum each year above actual necessities, at the same time admit of paying a reasonable amount of wages to employés. Establishing a minimum price would not prohibit photographers from getting more for their work when circumstances or quality of work would command.

To compel photographers who are now making their work below the established minimum to come up to the schedule, would be a direct benefit to themselves; for while they might now and then lose a job, what they did do would pay them a better profit, and they would actually have more money to use for their own comforts; and they would buy from their stock-dealer more, and a better class of goods, which in turn would add to the prosperity of the stock-dealer.

I am aware that many photographers are not good workmen, and people who require better work will not patronize them for their cheapness, but go elsewhere for their work. The people who do patronize them would pay double the price if they knew they could get work no cheaper elsewhere. This again would work to their advancement.

I would have certificates of membership to the Union, with the schedule price attached, which should be signed by the president and secretary, also district secretary, framed, and placed in a conspicuous place in each gallery, or where it could be referred to to convince a doubting customer. I should also have the penalty for violation of pledge attached, so that all could read it.

3. It is for the interest of stock-dealers and manufacturers to support this (such a union), because when photographers prosper they prosper. Whatever tends, therefore, to build up the photographer, is of direct interest to the dealer, for a profitable business means buying accessories, instruments, backgrounds, fine frames, and better goods, all of which adds to the manufacturer's or dealer's exchequer. Therefore it would be for their interest to compel good prices.

4. While the majority of dealers are hon-

orable men, and would abide by such an agreement should they once make it, yet the obligation on the part of photographers, if carried out as it would be, would take away all incentive to break away from it, because such a course would lose them their best customers, for there would be enough of the best photographers who would transfer their trade to other dealers.

5. The fifth article explains itself, and is designed to protect the honorable and punish the guilty. It also will prove a check to prevent the jealousy or ill-will of a rival from injuring his neighbor, therefore it will work equity to all.

Now this is the outline of my plan, but how shall we secure the organization? I am fully aware of the difficulties in the way. My first plan is to lay the scheme before many of our prominent and leading men, and, if possible, secure their endorsement and help. Having succeeded in this, I would have them unite in an effort to get all the stock-dealers and leading photographers to join such an organization. This I would do by personal correspondence and appeals to them, and by circulars; laying before them the reasons and form of organization. At first many will decline, because they are afraid it will not succeed; but when the organization is once formed, and the time comes for it to go into operation, those that hold out will be compelled to join for their own protection.

The success of it will depend, as you see, upon the action of the stock-dealers. If we can say every stock-dealer in the country has joined us, and you can get no goods unless you join us also, and abide by the established rules, then they will be compelled to come in.

The greatest difficulty is to convince men of its desirability. To make them think entirely as I do, I do not expect. Yet most men are willing to do what will better their condition, and I think the object is worthy the effort. I desired very much to attend the Association in New York, that I might lay this scheme before those present, but this I could not do. If you can, after thinking this matter over seriously, help it along, I wish to have your help. I purpose to lay the matter before our photographic journals,

and before the photographic public through them, but shall await your answer before doing anything more. It would be my desire to have the price of cards scheduled at \$3.00, and cabinets at \$5.00, and other things accordingly, but would leave that for the future.

Hoping to hear from you soon, I am,

Yours truly,

J. H. SCOTFORD.

INDIANAPOLIS.

If we were privileged to say but "just one word" on this subject, it would be *GO!*

A great many are predicting that "there will be *no Convention* in 1882," but don't rely on any such prophecy as that.

We happen to know that the officers elect are already actively at work, making preparations for a good time and a useful affair altogether. The ever-alert treasurer, Mr. J. E. Beebe, has already been East on a mission of tenderness among the manufacturers and dealers, and obtained promises from them of substantial help.

This cuts our pride and makes us writhe a little, for if every member would promptly pay his honest dues, there would be no reason for asking one cent of help from others.

We hope the time will soon come when *all* the expenses will be met by the membership. It would thus be more enjoyable and more good would be done. We shall have more to say presently. Meanwhile, decide to be on hand in August, and prepare.

VOICES FROM THE CRAFT.

DEAR SIR:

Finding nothing about the subject I desire information on in *Photographics*, or *Almanacs* and *Year-books*, or any other publication that I can find, what I should like to find out is "*how to burnish black, thin, gilt, bevel, cabinet mounts,*" as I have to use them now exclusively, and find it extremely difficult to burnish prints on them, as the color is apt to run over the edges and spoil the print. The way I manage to overcome this is by first lubricating only the edges all around, after drying go over all again, print included. Again, you have to

burnish first the edges only, all around, and lastly, roll the whole, which is a very tedious operation. The burnisher must not be too hot, besides, as in other samples of cards. If anything exists by use of which the labor of burnishing these cards could be simplified, I should be greatly obliged if you would publish it in your next month's *Philadelphia Photographer*, for the benefit of the craft. Respectfully yours,

F. ULRICH,
156 Bowery, N. Y.

Can any of our correspondents help our friend out of this trouble?

[We are informed by Messrs. A. M. Collins, Son & Co., that their black mounts are all coated with "water-proof solution." It will not resist the dissolving action of the alcohol used in the burnishing solution, however. The best way, perhaps, is to allow none of it to flow over the part of the card which is below the print, and to stop the burnisher before it reaches that part. Perhaps our readers may know of a better plan.—Ed. P. P.]

DEAR SIR:

In *Photographics*, page 237, on lubricating, by J. R. Clemons, it reads *eight drachms* of paraffine to ten ounces of benzine. Is this not a mistake? The quantity of paraffine seems too much in excess. I am trying to find some lubricator to overcome the trouble with the black mounts.

Respectfully yours,
F. ULRICH.

We referred the above to Mr. Clemons, and below is his answer:

In reply to the postal sent yesterday to you, we can only say that it was intended for an encaustic paste, but by some mistake it became a "lubricator." But by reducing it considerably with "benzine," it will make a *splendid* "lubricator." I have lately introduced a new "lubricator;" it is as follows:

Yellow Beeswax,	. . .	10 grains.
Paraffine, . . .	. . .	10 "
Benzine, . . .	. . .	12 ounces.

J. R. CLEMONS.

THE POSITIVE BATH AGAIN.

INTERESTING CORRESPONDENCE.

BY JOHN R. CLEMONS.

FRIEND CLEMONS:

Your letter and paper received. You appear to be holding a pretty good euchre hand. Am thankful for the instructions you gave me as to the manner of working your paper. The lot I returned I tried to work according to your formula as given previously. Will state that I never use my bath above forty grains, and my toning-bath as nearly neutral as I can get it.

Truly your friend,

ANSWER.

PHILADELPHIA, December 10th, 1881.

FRIEND ———.

I am glad you took my communication so pleasantly; such things at times are good, and if more of it was done, we could play a better hand and never be euchred, especially if we held both bowers. You say that your silver was at forty grains; true, even at that on a hot summer day it is as energetic as if it was sixty degrees on a cold day. There was another thing I forgot to mention in my former letter upon that subject, and that is, as you may have noticed, that some of the prints did not rub off. I have seen this with some who have had this trouble. I never have had it, and the wonderment was what was the cause. Well, after due reflection and putting it to a practical test, the result was thus defined. When a strong or rather intense negative was employed, the print passed through all right, while with those of a weak intensity the albumen was easily removed. Then why does the strong negative make the firmest print? Because the hydrochloric acid is given off during the formation of the du-oxide of silver, by the actinic action, and that alone, in my opinion, will coagulate the albumen to its greatest depths. I have never seen anything offered upon this subject, but I think this is the action.

In your last letter you don't state how long you floated the paper upon the forty-grain bath; whether you reversed the sheet in banging it up to dry, that is, the

end that comes off the bath last. I always hang upwards, and always work very slowly while removing from the bath, so that the remaining silver, while hanging thus, will flow towards the end that was lifted off first. By this means the paper is equally silvered, and the consequence is the prints will all tone alike, and there will be no mottling in the printing if the silver is anywhere near strong enough. I have been working a thirty-grain bath, and I float two minutes and fume twenty minutes. The size of the fuming-box must be taken into consideration. A large box requires a much longer time to fume than a small one, unless the box has been well filled with the fumes of ammonia before you commence to put the paper in the fuming.

Truly your friend,

JOHN R. CLEMONS.

P. S.—I hope this book I have written will be a benefit to the photographic fraternity.

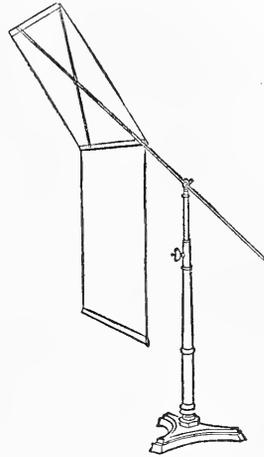
A SCREEN OR REFLECTOR.*

BY JAY DENSMORE.

In the *British Journal Photographic Almanac* for 1879, on page 158, appears a paper by Mr. Arthur F. Fenton, with the above heading. The article is embellished with cuts illustrating a very useful piece of photographic apparatus. I have seen the article in question in many photographic studios in this country, and all acquainted with it agree in praising it. The one difficulty I found with it was the amount of timber used in its construction, rendering it cumbersome and unwieldy, and impossible to get out of the way when not in use. The object of this article is to illustrate my method of overcoming this difficulty.

The accompanying cut tells nearly the whole story. An iron rod $\frac{3}{8}$ of an inch in diameter and $5\frac{1}{2}$ feet long is secured in a head-rest. One and one-half feet from its upper end a $\frac{1}{2}$ -inch hole is worked, through which an iron rod $\frac{1}{4}$ inch in diameter and 3 feet long is tightly driven to its centre. This makes a cross, with its three short arms each $1\frac{1}{2}$ feet in length. A small hole is

drilled in the ends of each of these three arms; also in the long arm $1\frac{1}{2}$ feet from the point of crossing of the two rods. A light, pine curtain-stick is secured to the small hole in the long arm and to the end of one of the short arms. A piece of suitable cloth about two yards long and one yard wide has a similar curtain-stick sewn in each of its ends.



One end is then fastened to the upper ends of the cross, passing over the stick already fastened to the cross and hanging down below it, as shown in the cut. Different covers, or pieces of cloth, may be prepared to use as occasion may require, as they can be changed in a moment. When not in use the cross may be removed from the head-rest and hung up out of the way, taking up no room at all. The upper part may be readily inclined at any angle, and the whole may be raised or lowered as desired. It has all of the advantages of the old style, cumbersome wood-frame contrivance without any of the disadvantages.

The article referred to says of it: "Covered with some light color, it is all that can be desired as a reflector; if covered with some transparent material it is efficient as a screen, and especially so if the color be slightly yellow and freckles are plentiful in the subject. If used thus, due allowance must be made for the depth and color of the shadows. The exposure would be necessarily longer, but there would be considerable saving in the retouching. If, however, covered with dead-black or very dark-slate,

* Written for *Mosaics*, but received too late.

relieved, when required, by any movable, light-colored material, such as is generally used to reflect light, being hooked on two pins, it would be found the most useful, particularly if employed in the place of blinds for subduing light, producing shadows, shading the figure, or for almost any use to which blinds are now put.*

THE RELATIVE POSITION THAT PRINTING AND TONING HOLD

TO THE MAKING OF NEGATIVES AND OTHER PARTS OF PHOTOGRAPHIC WORK.*

BY A. N. HARDY.

FREQUENTLY, when walking the streets in any of the larger or smaller cities of America, and for a moment I stop to look at the photographs hung at the door of some gallery for display, and notice the bungling manner in which the negatives have been treated by the retoucher and the printer and toner, I involuntarily think how I could improve the appearance of the work a hundred per cent. had I the treatment of those negatives in my gallery, and make presentable and attractive work to people of taste and good judgment from passable negatives. In saying this, let me not be understood that negatives should not as a rule be first-class in every respect.

On the other hand, there is no part, of what is strictly photographic work, that is so important as the lighting and posing of the subject under the skylight, and the technical work of the dark-room required to make good negatives.

The posing artist leaves the impression of his own characteristics upon the negatives for taste.

Artistic feeling and judgment in lighting and posing, which form the foundation for every photographic portrait, and with favorable conditions of light, good subjects, and the artist at all skilful, negatives will be made that will produce fair pictures even if badly handled in subsequent manipulations. But this is not the case with the majority of negatives with which the retoucher and printer have to do. By far the

greater part of our sitters are not good subjects, either in form of features, complexion, or expression, when in repose. And after the skilful artist has done his best under the skylight, there will be need of good modelling and harmonizing of the lights and shades of the face when they are ready for the printer, who must have paper prepared of such quality as to produce depth, richness, and good modelling in the shadows, and the whole crowned with tones that are not cold and lifeless, but bright and warm.

The foregoing views are not put forward as containing anything new, but some things are of so much importance that they need be repeated over and over again, and are worthy of being heeded by those who would improve the quality of their work.

HOW TO MAKE GOOD USE OF OVERPRINTS.*

BY KARL KLAUSER.

DON'T throw away your overprints of pleasing objects, especially of heads and groups of children. They can be made use of to ornament your lamp-shades very effectively. Make a pattern of the desired size with a piece of old newspaper, and cut it out in some opaque brown or stout green paper. Line the inside with white paper, and cut out ovals an inch apart. Now paste on your overprints on the inside, and you will be delighted with the effect produced.

If you want especially vigorous transparencies, print on the wrong side of your albumen paper until the picture is visible on the albumen side.

TO KEEP TALLY CONVENIENTLY.

BY GEORGE PINE.

THE enclosed little card represents a very convenient arrangement I have used for several years to mark the number of prints. It is simply a piece of white silicate slate, $\frac{1}{4}$ x 2 inches, or any suitable size, and costs but a trifle. I tack a piece on each end of my printing-frames, and when the negative is ready to print from I mark the number to be printed on one end of the strip, and

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for every good print taken off I mark 1. So I can easily tell when all are printed without assorting and counting. The marks are made with a lead-pencil, and are easily erased with the moistened finger.

DIFFUSION OF FOCUS IN PORTRAIT LENSES.*

BY J. A. W. PITTMAN.

UNDER this head I do not expect to advance any new idea. But I know there are hundreds of photographers who do not know how to use a portrait lens to the best advantage. If you have a lens that does not cut with sufficient depth of focus (for instance, when the front of face is sharp, the ear and hair will be out of focus), you can increase the depth by separating the two back lenses. To do this, unscrew the back lenses from the tube; then take out the inside lens and add an additional ring; or, if you cannot get that, take a firm black cord, and cut it just long enough to reach around the inside of the cell without lapping. Then replace the ring that originally separated them, and place the lens back and screw on the fastening. I have used an extra 4 x 4 lens, separated from one-sixteenth to one-eighth inch more than was originally intended, and the results were much finer. The image will be smaller, and will not have that crisp sharpness that some prefer (I myself used to prefer it), but it will be sharp, nearer all over alike, and with some lenses that produce sharp, wiry, coarse pictures, with the proper separation of the back lenses, will make quite good, soft negatives. This diffusion of focus can be used to the best advantage on busts. The separation of the lenses can be greater than for one-half, two-thirds, and full-length figures. You must be careful and put the same size cord or ring around the cell to prevent it from screwing in so far, leaving the inside surfaces of the front and back combinations the same distance apart they originally were. I did not learn this by chance or accident, but by observation in using Dallmeyer's patent "A" portrait lens. They are so constructed that the two back lenses can be

separated by unscrewing them, the inside lens remains screwed up, while the outside one is unscrewed enough to get the desired effect. These lenses are patented, and are the finest that I have ever used for general portrait work. If you can afford it, it will be best to buy a new lens; but we all cannot get just what we like every time, therefore we must make the best of what we have.

A NEW SHUTTER.*

BY WILLIAM R. WRIGHT.

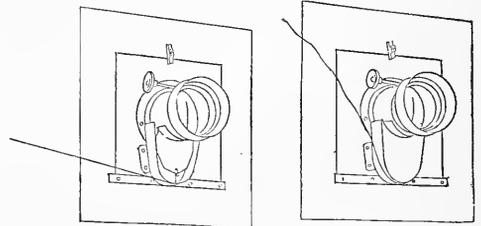
It is simple, cheap, and sure. Fig. 1 shows the shutter complete, ready for action. The string runs through an opening at the top, and may be of any length.

The case for the shutter may be of tin or card-board. The drop should be of Russia iron or copper.

Fig. 2 has the sliding front removed to show the drop. It is suspended in the pic-

FIG. 1.

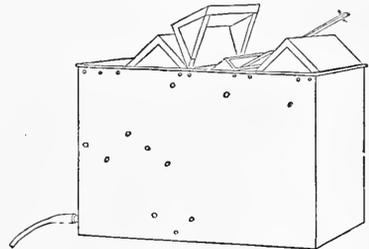
FIG. 2.



ture about two-thirds of its proper height. It works in the slot of the diaphragm, and should work very freely.

I have used it on my Peerless tube for six months or more, and it has worked to

FIG. 3.



my entire satisfaction. Any good tinner can make one. They cost but 25 cents. No patent.

Fig. 3 shows my plan of keeping my

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baths of an equal temperature. It may be made of galvanized iron or wood. Fill with cold water in summer and warm water in cold weather.

If it is made of iron. A small lamp below will keep up equal temperature day and night, in the coldest weather.

OUTSIDE SCREENS.*

BY M. P. BROWN.

ONE of the best things I did this summer was to place screens on the outside of my skylight. Any photographer can do the same and at a trifling cost. They not only keep the sun off the glass, but by so doing make your rooms at least 10° cooler, and your light much softer and easier to manage. The idea is not mine, but comes from one who has used them for several seasons, and has recommended them to many others. The only trouble will be, you will think them too simple to be worth the time and expense of putting them up. I can say that I would not be without them if I had to put up a new set every week during the summer months. Try it, and then see for yourselves; and this is how we do it. I went to the planing-mill and got ten pieces of pine, one by one and a half inches wide and twelve feet long, and fifteen pieces of same size, sixteen inches long. I made from these five frames by tacking the sixteen-inch pieces between the long strips, that is, one piece at each end and one in the middle to strengthen them. I then got bleached muslin to cover them, a strip four yards long making enough to cover two fans, or frames. This I tacked on as I would a background. After I had my frames covered, I fastened a board, twelve inches wide, on each side, running from top to bottom of my skylight (outside, of course). I then fastened my frames at each end to the boards by boring through the board and frame and driving in a small iron pin. My frames when closed down are about ten inches above the glass, which allows a nice current of air to pass under. When in use they stand nearly upright or at any angle desired to keep the sun from shining on the

glass. I placed mine so they lop on each other about an inch, and open and shut with a connecting rod like our window-blinds, and that is what they are. To sum up, make muslin slats, eighteen inches wide, the length of your skylight, fasten them in a frame, connect them together with a rod, carry a line from each end of the rod into your room, and work them at any angle you choose. I suppose you will say, where were they after a hard gale? I always found mine just where I first put them. It took me about three hours to put them up, and about fifteen minutes to take them down: I was almost two years making up my mind to put them on, for fear they would turn out like so many things that I and every other poor photographer has tried, and then "thrown down the sink," but, as I said, it turned out to be one of the best things I have done this summer in the way of making photography pleasant and profitable. *Make note of this, and then try it.*

A FEW LEAVES FROM MY DIARY.*

BY A. R. GOULD.

ON October 9th, 1847, I took my first picture, independent of my instructor. Success moderate. Light dull and rather cool.

October 10th. Had some difficulty with children. Instructor got nervous and failed of success.

October 11th. Practiced all day on promiscuous subjects.

When we look back over the field which we have travelled for so many years, and recall the trials and difficulties that met us at every step, it wonders me that I am still a knight of the camera. In the days long gone by, when we stood over mercury baths and coating-boxes with small side or skylight, and long exposures—were the times that tried men's faith in the final triumph of our beautiful art; and how we hailed with joy the advent of the ambrotype as a Godsend to relieve us from the fumes of mercury and bromine, and to quicken us into new life for a more determined effort to drink deeper of the art-fountain, and

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climb higher on the shelf of perfection. But our troubles were not here ended. We had the white glass picture with the black varnish to contend with. The colored glass followed, and served its purpose well, but excellence and beauty were easier reached when the ferrotype plate was found in our sanctum. But to the white glass picture we must give the credit of the beautiful photograph. With what jealousy we watched it through all its chemical changes, till it passes under the burnisher and shines forth in its beauty "a thing of life, and a joy forever." Where now are my veteran comrades of daguerreotype days, who are yet in the line of battle and keeping step to the music of advancement? Alas! how few are left to tell the tale:

The dimmed eye, the palsied hand,
In silent march throughout our land
Has marked a veteran here and there,
Transforming them to fields more fair,
Till few are left to tell our story—
How hard we struggled on for glory.

Courage, then, my young friends, who are yet novices in picture art. You have a field of glory before you, and a starting-point so elevated and refined from which to take your flight into the world artistic, that to fail would only betray a weakness and inability to follow correctly the formula spread out before you. But do not be content with formula alone; investigate for yourselves, deep in the chemical strata which is the underlying base of all perfection in the picture art.

HAVE THINGS HANDY.*

BY J. A. FRENCH.

1. My double-sided show-case which hangs on the pillar at the entrance, V-shaped, hangs there week in and week out. I have a curtain hung on a Knapp fixture on both sides, which I run down over the pictures on the Sabbath, also on funeral occasions, when places of business are closed for a brief period.

2. I have just inside of entrance at street door a button with wires running to an electric bell in the print-room, so when I

* Written for *Mosaics*, but received too late.

return from a trip of viewing, I can easily call an assistant to help carry up my traps to the gallery.

3. There are wires also that run from my reception-room down to the same bell, which notifies me in the print-room when any one comes in.

4. I have telephonic communications to my house, which is exceedingly handy. I am also a member of the Telephone Exchange. Appointments are made, orders for bringing my view wagon to the door, and various other things connected with the business which make it extremely convenient.

5. Last January I put in a background carriage, from which I can run in and out of position four different grounds as I may want them. Where the operating-room is 16 feet wide or more, this is a very convenient method of disposing of the grounds in a compact, handy form.

6. In my chemical room I have a handy arrangement for heating the air space around my silver baths in cold weather, and cooling it in warm weather.

7. In washing prints I use a siphon, which changes the water every five minutes. 'Tis only a year since I have adopted the plan of mounting my pictures at night instead of in the morning. This way evens matters up better, and we can commence the next day printing earlier.

8. My printing platform is outside of the print-room, enclosed by glass, part ground and part plain, in sashes which can be raised at will according to the weather. In dull light we can set out fifty cabinets at the same time. I have skipped about a good deal and tried the patience of the reader a deal more.

In conclusion, I believe in having a suite of rooms neat and attractive, renew specimens often, and lastly in having things in all the rooms handy and convenient, and attending to the business *personally*.

"DRY" CHIPS.*

BY GEO. SPERRY.

BEFORE cutting up your gelatin, trim away the hard edge that surrounds the

* Written for *Mosaics*, but received too late.

sheet. It may save you some lumps in your emulsion, and can be dissolved at a lower temperature. Quite an item if you use the boiling method.

Flow the plates as you would with collodion. To do this successfully, they must be of the same temperature as the emulsion. Place upon a marble slab. They will set as fast as you flow them, and can be transferred immediately to the drying-box.

An oil stove is the most convenient heater, it is so easily regulated.

A damp cloth hung above the setting slab will keep dust from settling on the plates.

When thoroughly dry, pack them away face to face with nothing between them.

Two or three thicknesses of deep red tissue paper over the ordinary dark-room window is a safe light for any plates.

The oxalate developer is much the simpler and better for portrait work.

If you want clean negatives, keep it well filtered.

If your plates lack detail, add to the developer a little hypo solution.

Add to your fixing bath a small quantity of old ferrous-oxalate developer; this gives brilliancy to the negative.

If you have an undertimed plate, and cannot get another exposure, cover it well with developer, and set it away for half a day if necessary. It cannot fog in the oxalate developer.

To get the best results, give plenty of time, and use a weak developer.

A GOOD MOUNTANT.

BY H. LISTER.

ADD one drachm of alum (dissolved in a little warm water) to each quart of fixing solution, and you will never be troubled with a blister.

Mountant.

To one ounce of starch, rubbed with a little water to paste, add one drachm of gum arabic, dissolved in water; now add boiling water, stirring briskly until the whole forms a thick paste. In case your paste does not become stiff enough, add more water and boil it; strain through

muslin, add from two to three drops of carbolic acid, and shake well and thoroughly. This is a clear, white paste. Shake well before using. Not patented.

IN *Mosaics*, 1881, page 75, Mr. F. C. Phillips, in "Pebbles from the Sea," says: "After printing, wash for five minutes in water, to which has been added three grammes of oxalic acid to every ounce of water." Now this would be 3 ounces, 1 drachm, 1 scruple and 16 grains (or 1536 grains) oxalic acid to one quart of water. Is this solution not too strong? Should it not read three grains in place of three grammes?

A FEW WORDS ON RETOUCHING.*

BY F. A. HARTFORD.

ABOUT a year ago, being somewhat familiar with the properties of damar varnish, although I had never heard of any one using it for the purpose, I conceived the idea of reducing the commercial damar varnish one-half with spirits of turpentine, and using it for a surface in retouching negatives. From that time until the present I have been constant in my affections to my retouching varnish. I have not succeeded in finding any surface that will allow as little time and labor for a smooth job. It admits of working out quite heavy shadows, and for lighting up broad shadows, and for purity and clearness, it has no equal. I have no object in puffing it unless it be to benefit some one else.

I generally use for a pencil a Faber's letter F. On some negatives I use a metallic lead, procurable of Anthony; I do not know the brand; it bears the zero mark on one end, and costs fifty cents. I have had some experience with different metallic leads, and I do not hesitate to say that this pencil is far superior to anything I ever used on a ground surface. Every retoucher should know its good qualities by actual experiment.

Another dodge, and I will dodge out and give some one else a chance.

I proved a negative, one day, in the sun; forgot it, and, in technical terms, "burnt it up." The print stuck to the negative, and

*Written for *Mosaics*, but received too late.

left the varnish "spotted, ring-streaked, and speckled," like Jacob's cattle.

Spoiled? Oh, no. I simply ground the whole surface over with pumice-stone, and the stains disappeared as magically as though it had been a secret process.

SOCIETY GOSSIP.

CHICAGO PHOTOGRAPHIC ASSOCIATION.—A regular meeting was held at Douglass, Thompson & Co.'s warehouse, 229 and 231 State Street, on Wednesday evening, December 7th, 1881. Mr. A. Hall, President, in the chair. On motion, reading of minutes of last meeting dispensed with. Messrs. Hermann Von der Fehr, of Chicago, and K. T. Pihlgren, of Princeton, Ill., were elected members.

In pursuance of notice given last month, Mr. Greene moved that Section 4 of Article III. of the Constitution be repealed. The section in question reads as follows: "No member shall hold the same office for two successive terms; but a member elected to fill a vacancy shall not be disqualified for election to the same office at the next regular election, unless he has held the office more than six months." Mr. Greene said that he had given his reasons for making this motion at the last meeting, and it was unnecessary to repeat them. The motion being seconded, was carried unanimously.

Mr. Greene then moved "That this Association make an exhibit at the next Convention of the Photographers' Association of America at Indianapolis, and that each member be limited to one picture."

Mr. Shaw, in seconding the motion, thought it would be preferable to allow each member to send two pictures—one portrait and one landscape, and offered an amendment to that effect.

On a vote being taken, Mr. Shaw's amendment was lost, and the original motion carried.

The Secretary announced that the Scovill Manufacturing Company had presented the Association with a copy of the *Photographic Amateur*.

A vote of thanks to the Scovill Manufacturing Company for its very acceptable gift was passed.

Mr. Joshua Smith next read his paper on "An improved process for the preparation of gelatino-bromide dry-plates."

*To the Members of the
Chicago Photographic Association.*

GENTLEMEN: We have had nothing during late photographic discoveries that has taken such deep root among photographic devotees as our new friend, the Gelatin-Bromide Dry-Plate.

To the early pioneers of the gelatin-bromide process, we are all indebted for their writings upon this important subject. It was given free to the world, and I therefore feel that what little knowledge or discovery I have made, should not be stored away among the secrets of the dark-room.

The season has now arrived when dark days are plenty, non-actinic rays predominate, collodion and baths feel the influence of a lower temperature, thereby making longer exposures necessary. It is especially under these conditions that the rapid qualities of gelatin plates command our admiration; for in them the photographer finds a new power by which, during dark days and bad light, he is enabled to produce negatives of nervous sitters; when, with bath-plates, nothing but poor results would follow his attempt.

I will here suggest to you all: "Do you wish to be more fat than lean, use less of collodion and more gelatin."

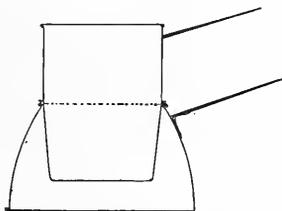
You are all eager to test the capabilities of our new friend, and a few explanations on the *modus operandi* will be welcome.

At the late Convention in New York, I described my formula of the gelatin-bromide process, by which excellent results can be obtained. Since then I have experimented, and feel confident that the process I shall here describe is better and easier to work; a close adherence to the details, in order to be successful, I cannot too strongly impress upon your mind.

In the first place, you must provide a *dark* room for this special purpose. The entrance should form a vestibule, in order to exclude all white light when entering. If the room has a window, cover the same well with no less than two thicknesses of (say) Carbutt's ruby paper; fix up a table or

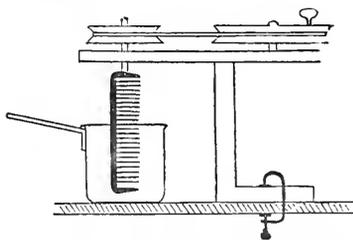
work-bench near your light. When there is no window, cut a hole into the wall; cover with two sheets of ruby paper, have it arranged so that your light, whether gas or oil, is on the outside of your room, so as to keep down the temperature, and to guard against soot.

You should also have a marble or stone slab, say four feet long by two feet wide, laid on a table or strong frame, and perfectly levelled; make also a couple of small levelling-stands by screwing three cornice screws into a small board, say eight by eight inches. They should be levelled with a spirit level before use. Purchase also a thermometer with scale up to 212° , inside of glass tubing, and no metal trimmings, so that you can place it into your emulsion or water whenever required. I have brought one for your inspection. Here is also my stew-pan; it is just the thing, and is a combination of my own. The lower part is a rice-pan, the inside is of porcelain, the out-



side of granite ware. The top or cover I had made of tin; it fits on the top of outside pan in such a manner that no light can get inside of it. On the upper top there is a steam-trap, which is so made that no light can enter, yet the steam can freely pass out. The bottom is set in about half an inch, and in the centre is a two-inch circular opening. Purchase also one thick skin of chamois leather, without any thin parts, which you can observe by looking through. Also buy one yard of embroidery canvas; the American make is good enough; that which has no colored stripes or squares. Here is a piece of the fabric. I have also here for your inspection my mixing apparatus. It consists of two circular wooden wheels, mounted horizontally, and stands about nine inches high. Into the centre of the small wheel I attach a large rubber comb. The

two wheels are connected by means of a string, which runs around the edges. Near the edge and on top of the large wheel is

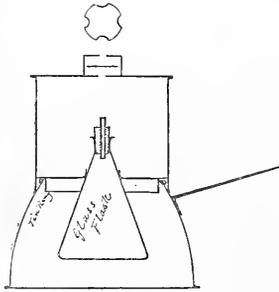


a small knob. By turning the large wheel, the comb commences to rotate rapidly. You will also need a boiling-flask. Mine, as you see, has straight sides; it is easier to clean than the old style; it looks small, but it will hold sixteen ounces. Also provide yourself with two large yellow bowls with lips, and two smaller ones, and one eight by ten flat glass pan, a few clean bottles, funnels, and two graduates same as this one, with parallel sides, which insures correct measuring, holding eight ounces.

Your chemicals will consist of silver nitrate, ammonium bromide, Nelson's No. 1 gelatin, Coignet's gold-label gelatin, alcohol, and water.

We will now commence by taking two and one-third sheets of the Coignet gelatin, place it in one of the small bowls filled with cold water; into the other small bowl, also filled with water, place 100 grains of Coignet, and 440 grains of Nelson's No. 1 gelatin; let soak, and during the preparation of the next part pour off the water from the gelatin several times, to free it of acids and some of the impurities that are soluble in cold water; weigh off 220 grains of ammonium bromide, place it into your graniteware rice-pan, or a porcelain one; add six ounces of water, and add the two sheets of Coignet gelatin; now fill the outside pan with hot water, when the gelatin will dissolve. Have ready prepared a stock solution of silver nitrate, 60 grains to the ounce, made by adding a few drops of carbonate of soda solution, shake up and place in the sun until clear, then filter, and it is ready for use. Of this solution take $5\frac{1}{2}$ ounces, correct measure; pour into an eight-ounce silverbottle; take a clean cork and cut

two wedge-shaped holes on the edges, one opposite the other. Measure out into another bottle $1\frac{1}{2}$ ounces of alcohol, 95°, and add $1\frac{1}{2}$ ounces of water. This is the alcoholic solution. Have ready a good fire in your kitchen stove, and when your water is boiling, empty the water from your water-pan and replace it with boiling water. Now take all your prepared chemicals and utensils into your dark-room, place the bromide solution which stands inside your water-pan on your work-table; take your mixing apparatus, lower the comb into the bromide dish, and fasten it by means of a large clamp-screw on your work-table; with your right hand commence to rotate, with your left hand add the silver solution, drop by drop. When your silver is all added, pour



your emulsion into your boiling-flask, put in a cork with a small glass tube passed through, so as to allow the steam to escape; place in your water-pan, put on tin cover by passing the neck of your boiling-flask through the opening in the bottom of your tin cover; see that it fits well. You can now take it into the kitchen, place on the fire, bring to a boil, and let boil as hard as it will for fifteen minutes, and no longer, else your emulsion is liable to fog; take it back into your dark-room, remove the cover, and with a towel take out your bottle, shake well, and pour the emulsion back into the dish you used for mixing; place the same into cold water; lower temperature to 100°. Now take the other bowl of gelatin, drain off water, and add gelatin to the warm emulsion; keep temperature at 100°, and stir with glass rod until melted; rinse your 8 x 10 flat glass pan with cold water, pour your emulsion into it, place the same on your stone slab to set, and when perfectly

solid it is ready to be washed; the object of which is to free it of all soluble matter, such as nitrate of ammonium, which was formed when adding silver nitrate to ammonium bromide. The silver combined with the bromide, forming bromide of silver, insoluble in water, while the nitric acid, that was held by the silver, forms a new salt with the ammonium, and known as the nitrate of ammonium, soluble in water, which must be thoroughly eliminated, else your emulsion will be slow; the plates, when dry, would also be full of fine crystals.

Before proceeding to wash the emulsion, we will take into the dark-room a bucket of cold water, temperature not above 50° F.; take the yard of working canvas and cut it in half; wash it in warm water to remove the starch and other matter. Place your bowls on your work-table; spread your canvas over the top rim of one; take your emulsion, which should be stiff and solid to the touch; cut up with a bone knife into small pieces, and place on top of your canvas. Pour on some cold water, gather the canvas up in such manner as to form a bag, so that nothing can drop out; hold the ends of the bag in your left hand, dip your right hand into the cold water, then twist the bag around a few times; now, with your right hand, squeeze the emulsion through the meshes of the canvas into the water. When all is squeezed out, open your canvas and spread on top of your other bowl, pour the contents, water and all, from dish No. 1, on the canvas into dish No. 2; gather up your canvas into a bag, let the water drain out, then place the bag into dish No. 1, open and pour over clean cold water; empty dish No. 2 into sink or slop-bucket, and continue pouring on fresh water several times, then let it well drain; assist to force the water out by a gentle squeeze, keeping your hands cold. When all superfluous water has been forced out, empty, say dish No. 1, and lay your bag of emulsion into it, spread open, add slowly your alcoholic solution previously prepared, mix up with glass rod, pick up bag, let it drain a few minutes, place it in clean dish No. 2; pour alcoholic water from dish No. 1 back on emulsion, let it soak a few minutes, pick up the

bag and let it drain; assist with a gentle squeeze.

The washing is now finished; place the bag and emulsion in your inside dish, which must be cleaned before use with hot water; place the same in your stew-pan, water at 100° F., and leave to melt. By measuring the alcoholic waste solution, we will find that instead of three ounces, which was the original amount added, our graduate will show from four and a half to five ounces. This alcoholic dodge, which, by the way, is my own, gives us three distinct advantages; first, the elimination of an excess of water; second, hardening of the gelatin film; and, third, rapidity in drying of the plates, which is performed in from six to eight hours, in any ordinary room; besides the emulsion flows easily, and sets at a higher temperature. I would strongly recommend this mode of finishing the washing to all. The advantage gained will amply repay you. By this time the emulsion will be found melted; draw the canvas through your fingers to squeeze out all fluid matter, then throw it in your slop-bucket, to be washed out after your plates are all coated; now put your chamois skin, which must be well cleaned, into warm water, squeeze perfectly dry, and spread it over a deep porcelain or glass dish, pour on your warm emulsion, let it filter through. We are now ready to coat our plates, having previously cleaned and albumenized our glass, same as for the collodion process. We place before us on the work-bench a levelling-stand, and the other near the stone slab. The tops of the cornice screws should be covered with small pieces of rubber tubing before levelling. See that the temperature of your glass is between 80 and 90°,—your room should register not over 80°. The best measure to dish out the emulsion on the plates is a druggist's horn spoon, one that holds two drachms; bend the handle upwards, by holding the same in a gas flame for a few seconds, when it can be bent into the desired position.

The emulsion being filtered, place it in your water-pan, temperature not over 90°. It is well to measure the same each time before filtering. I find in my practice that with the amount given in this formula you

should have about twenty-three ounces, which will coat forty 8 x 10 plates.

The amount of silver nitrate consumed for an eight-by-ten plate is about 8½ grains; bromide of ammonium, 5½ grains; and gelatin, 16 grains. The amount contained in each ounce of emulsion is, silver nitrate, 14½ grains; bromide of ammonium, a fraction over 9½ grains, and gelatin, about 27½ grains. We will now pour into a small porcelain or deep glass dish, say eight ounces; place the same in water, temperature between 80° and 90°, on the other side of your levelling-stand, which is before you on your work-table. Lay a plate on the top of the three screws which form your levelling-stand; pour two spoonfuls of emulsion into the centre of the glass plate; steady left-hand corner nearest you with your left hand, and with your right forefinger assist in flowing your emulsion, first to your nearest left-hand corner, thence to the farthest left corner, then to the right, and so on to the nearest right corner, when it will be spread over the whole surface. Learn to keep the emulsion well in hand, and, after coating a few plates, you will find that it runs very easily. Now pick up your plate with both hands, and manipulate it in such a manner that the coating appears very even. Should there be small specks or bubbles, remove them with the tip of your forefinger. Then lay the plate on top of levelling-stand No. 2. Coat another plate same as the last; lay it on levelling-stand No. 1, remove plate from stand No. 2, lay it on cold marble slab to set, pick up plate from No. 1, and place on No. 2, and continue until your marble slab is full. Then remove the plates first coated, which will be found solid enough to be placed on drying racks. They should be at least two inches apart, else they might be spoiled by sweating. Set them in a dark part of your room. In about six to eight hours they will be found to be dry. When dry, put them into light tight boxes for use. If the rules herein laid down be strictly followed, the result will be good; but should you fail the first time, try again; have plenty of patience; keep your work-room clean and free from dust; see that your clothing is well brushed, and that dust is a thing unknown to you.

I have brought with me some plates which I have had in my possession for some time. They are part of a lot I purchased a year ago; were never used on account of their peculiar markings and spots. It has been stated that several of these defects are produced by careless development; but we have them all here before development. Here is one showing a semi-transparent spot, diameter of a lead-pencil; and another, the formation like a ringworm. I have also a couple here of the sandpaper type; it looks, when viewed through a magnifier, not unlike the floor of a carpenter shop—sawdust, shavings, dirt, and all. There is no use dusting a plate like this before exposure—the filth is planted in that plate. They teach a lesson, and show how necessary it is to keep everything about us during the making of these plates perfectly clean. It requires careful manipulation during every part of it, and unless you attend to these points, success will not crown your efforts. You will be perplexed at first, but in time you will perhaps overcome them all; pay close attention to the mixing of your ingredients, and when adding the silver to the bromide, take plenty of time, for herein lies the rapidity of your plates; a coarsely-mixed emulsion will be slow, while rapidity is gained by fineness of division; therefore you must force the rubber comb by rapid movements. You must be careful, after you have added the bulk of gelatin, that the temperature is never above 100° F.; but it should be kept to about 90°, otherwise you may be troubled with what is called frilling. I have observed that such plates need not be thrown away, for after being kept in a dry place for six months, they can be developed without frilling.

I fear that this paper is getting too long. I have described every operation in detail, and hope that you and many of my friends throughout the country will find the process herein described one that can be successfully worked.

Fraternally, yours,
JOSHUA SMITH.

On the conclusion of the above paper, the Chair stated that, through the kindness of Mr. Stuart, the members could now have

the opportunity to examine some of the defects alluded to by Mr. Smith, and Mr. Stuart would explain the appearances presented as far as possible.

MR. STUART.—In examining the defective plates sent to me by Mr. Smith, I found three distinct kinds of spots: 1. A spot undoubtedly caused by a speck of dust imprisoned in the emulsion while still soft or "green." 2. A thin or semi-transparent spot, apparently caused by water or other solvent falling on plate while emulsion was still warm. 3. A local thickening of the film, caused, in my judgment, by a drop of emulsion falling on the film when partially set, and not having time to distribute itself before the plate became too stiff to allow it to do so.

These various kinds of spots were now shown to those who felt interested in the matter by Mr. Stuart, using a microscope of a power of about fifty diameters. Unfortunately, some of the most interesting of these defective plates had been accidentally left at home by Mr. Stuart, but there were enough on hand to throw considerable light on the subject.

Mr. Hodges, in proposing a vote of thanks to Messrs. Smith and Stuart, said he thought the former gentleman had placed not only this Society, but the photographic profession at large, under great obligations; for the information he had so freely given to the meeting and to the world, first at the New York Convention, and then this evening, had cost him much thought, time, labor, and money, and if he had chosen to sell it as a secret process, at a fancy price, his well-known reputation as a successful maker and user of gelatin plates would have insured him plenty of purchasers. But, instead of this, he had freely given it to the profession; and he (Mr. Hodges) had no doubt he was merely giving utterance to the general sentiment of those present, and of that much larger audience who would read Mr. Smith's paper in the journals, when he said that he personally, considered himself under an immense debt of gratitude. There is an old saying, that "virtue is its own reward," and probably in this, as in most other cases, Mr. Smith would find it the only reward; but when, at the mature age of fourscore

years and ten, the venerable patriarch lies on his dying bed, it will, no doubt, be some consolation to him to reflect that he has at any rate done some good in this world. (Applause). Vote of thanks seconded, and carried unanimously.

Mr. Shaw announced that at the next meeting he will exhibit an old-fashioned changing-box for dry-plates, made twenty-five years ago by John Stock.

Mr. Greene showed some very fine work—architectural views and copies of architectural drawing, on Beebe plates. The views were certainly equal to any wet-collodion work as to quality, and especially in that particular in which gelatin is generally considered wanting, viz., brilliancy; while the exposure was only a small fraction of what collodion would have required. The copies of drawings (being from one of the competition designs for the new Chamber of Commerce) were the finest examples of that description of work the Secretary has ever seen, and his opinion was shared by nearly every one present. Some of them had no intensification at all; yet the finest lines are very distinct, and the ground of the drawings represented by white paper. Moreover, the negatives were made on a dark day and in an ordinary room, not under a skylight. Mr. Greene says he does not wish to disparage any other make of plates, but of all those he has tried, the "Beebe" brand gives by far the best satisfaction.

Some discussion followed as to the best method of using ferrous-oxalate developer; Mr. Shaw not liking the dipping-bath, as recommended by Mr. Beebe, but preferring a flat tray. Mr. Greene thought the dipping-bath had some advantages, more particularly on the ground of economy, but for himself preferred to use a flat dish, and keep his oxalate and iron solutions in separate bottles. It gave him a better chance to correct errors of exposure by changing proportions.

Mr. Shaw said he was going to get a dish made, divided into compartments, and keep solutions of different strengths in them, so that when he had a negative to develop, concerning the exposure whereof he was in doubt, he could commence by placing it in the weakest compartment, and change it

from one to another according to the appearance it presented.

MR. GREENE.—I understand Mr. Haynes, of Fargo, Dakota, uses six little pitchers (can't say whether they are long-eared ones or not), containing developers of six different proportions—the strongest being one of iron to three of oxalate, or as much as the latter will take up. He works by pouring the contents of one pitcher into his developing-dish, and puts in his plate; if it does not come up to suit him, he pours the solution back into its pitcher, and replaces it from another, and so on, until he gets the effect he wants.

(Mr. Shaw, by the way, is our newest convert to the gelatin process, having developed his first plate a few days before the meeting, and is very enthusiastic concerning it.)

On motion of Mr. Gentile, adjourned to first Wednesday in January, which will be the annual election of officers.

F. H. DAVIES, *Secretary*,
No. 78 Michigan Avenue.

ASSOCIATION OF OPERATIVE PHOTOGRAPHERS OF NEW YORK.—A regular meeting was held November 2d, 1881, President Coonley in the chair. Mr. J. Traill Taylor and Mr. P. McGeorge were elected honorary members.

Acknowledged were donations from the Messrs. Anthony, *Emulsion Photography*, by Dr. J. M. Eder; from the Scovill Company, the *Photographic Amateur*, by J. Traill Taylor, also the usual complement of domestic and foreign journals.

Mr. Taylor, in the name of W. Irving Adams, of the Scovill Manufacturing Company, offered a prize to that member of the Association who should bring forward any new process, formula, improvement, or result of original research, which in the estimation of the Literary Committee of the Association should be judged the most valuable. The prize consists of the elegant 5 x 8 portable camera of the American Optical Company. The announcement was received with loud applause, and the Secretary instructed to express the thanks of the Association to the Scovill Manufacturing Company.

Mr. Oscar Reitz, of Valparaiso, Chili, exhibited a large number of photographic views of scenery of the American Pacific Coast, especially of the work in progress on the Panama Canal.

Mr. Hallenbeck exhibited Atwood's reversible printing-frame, which created general admiration.

MR. ROCHE.—The Messrs. Anthony are manufacturing now a very ingenious little apparatus by which the mixture of oxalate of potash and sulphate of iron can be drawn from beneath the oily surface, thus enabling the operator to use fresh developer for every plate.

The Trustees reported to have deposited \$100 in a savings bank for the Association.

An amendment by Mr. Atwood, according to which the first meeting of every month is entirely devoted to discussions, reading of scientific papers, exhibition of specimens, new apparatus and appliances, etc., while at the second meeting only routine business shall be attended to, was carried.

MR. ROCHE.—Gelatin plates underexposed are liable to staining under a forced development. It has been recommended to use citric acid and alum to remove such stains or fogs. In cases where an alkaline pyrogallic acid developer has been used, this remedy may answer; with oxalate of iron it does not. Stains occurring with the oxalate developer, he finds, can be removed with a mixture of one drachm of sulphuric acid and one quart of water, radically and in a very short time.

Mr. Ehrmann, and several of his co-laborers, have found that the alum and citric acid mixture tend greatly to weaken the film, even to a perfect dissolution, by longer exposure to the remedy. The application of sulphuric acid for the same purpose is new to him.

MR. HALLENBECK.—There is nothing new in the application of sulphuric acid. There is no use to cobble up a faulty plate by after treatment, when perfect results can be had by using good plates. Sulphuric acid he has used in his developer direct, and with the best results.

MR. EHRMANN.—The presence of sulphuric acid in the developer is quite to another purpose. As long as iron has been used as a

developing agent, intelligent operators have added a small quantity of sulphuric acid to the iron solution. This is done to prevent the higher oxidation of the protoxide. Sulphate of protoxide of iron will develop, oxide will not, and without doubt the addition of sulphuric acid to the iron, to be mixed with the oxalate of potash, will not prevent stains.

MR. KANE.—The Secretary said at last meeting that sulphur is not found in albumen. Hardwich, however, states that albumen always contains sulphur.

Mr. Ehrmann, correcting his former statement, gave one from many analyses of albumen he has consulted: Carbon, 53; hydrogen, 7; oxygen, 22; nitrogen, 16; sulphur, 1.7; phosphorus, 0.4.

Mr. Kane is convinced that during the operations of fixing, sulphur from the albumen enters into some gaseous combination, either sulphurous acid or sulphuretted hydrogen, which, collecting under the albuminous film, raises it and forms the vesicle. Such irregularities are, however, only the consequence of bad manipulations or inferior material.

Mr. Atwood exhibited three prints, varying in age from ten to twenty years, and in different states of preservation.

The "fading of prints" was consequently made the discussion for the next meeting.

Meeting of November 16th.—President Coonley in the chair. William H. Saul was appointed librarian in place of Adam Wiegand.

By the adoption of the McLoughlin amendment the monthly dues are reduced to twenty-five cents.

The Trustees were empowered to draw on the bank account of the Association.

The purchase of Hardwich's *Chemistry* was ordered.

Mr. Atwood not being prepared to open on "fading of prints," Mr. Shaidner referred again to the difficulties he encountered in the rectification of an old negative bath, and thought that the crystallization spoken of could not be caused by a surplus of permanganate of potash, as only by repeatedly adding the permanganate he got over his troubles. The bath showing the crystalline deposit he heated nearly to boiling point, and added

still more permanganate, till perfect colorization; heated again, added more of the manganese salt, and sunned for three days. After properly iodizing and acidulating the bath, it worked to perfection. He subjected three other old baths to the same treatment with success.

MR. TAYLOR.—This shows that the bath had been impregnated with a great amount of organic matter.

Mr. Coonley is not in favor of the permanganate treatment. A thorough fusing will certainly destroy all organic bodies admitted to the bath.

MR. HALLENBECK.—In regard to the iodizing of the bath it is interesting to know how that is done by operators generally, and can iodide of silver be formed from any other kaloid than iodide of potassium? Iodide of silver is of a light yellow color, but he finds that often a precipitate of a white color is obtained, which is not sensitive to light, and does not answer the purpose of iodizing a bath.

MR. FIELDS.—If a white precipitate is obtained that certainly shows an imperfect preparation. It has been caused by a surplus of iodide, and the precipitate is not sensitive to light. He does not rectify his old baths by means of permanganate, but by fusing. He asked what is the black residue found after dissolving fused nitrate of silver.

MR. HALLENBECK.—The purity of the nitrate of silver has to do a great deal with our successes or failures. I have been informed that a great deal of the nitrate of silver of commerce is adulterated. The beautiful large crystals we receive from the chemist's shop are not always pure, and the nitrate we make ourselves does not compare with it in appearance; even has it been said that large crystals can only be obtained when nitrate of soda is added to the solution.

MR. EHRMANN.—Nitrate of silver is a neutral anhydrous salt, consisting of 1 eq. nitric acid = 54, and 1 eq. of protoxide of silver = 116 ($\text{AgO} + \text{NO}_3 = 170$). It is made by dissolving silver in nitric acid, evaporating, and crystallizing it. The more copious the solution from which it is crystallized, the larger the crystals will be; still, crystals of less brilliant appearance may be perfectly

pure. Often it is adulterated with other nitrates.

Fusing of nitrate of silver is only a continuation of evaporating it beyond the point of crystallization. When the mass flows easily and even, like oil, consider the process of fusing completed. Heating more will decompose part of the silver, changing it to nitrate $\text{AgO} + \text{NO}_3$, which crystallizes in sharp octahedric needles, while the nitrates crystals are rhomboidal plates. The black powder depositing from fused silver solution is metallic silver, and when from an old bath, carbonized organic matter. Fusing destroys not an organic matter admitted. If any such fraudulent addition is suspected, proceed as follows: Precipitate 10 grains of nitrate of silver with hydrochloric acid, which must yield 8.44 grains of chloride. If the result is less, there are foreign matters present. The precipitate not being soluble entirely in ammonia, shows lead. To test for other adulterations, dissolve a quantity of the nitrate in water, precipitate with hydrosulphurous water, filter and add phosphate of soda; a white precipitate indicates magnesia; filter again, evaporate, expose to red heat in a platinum crucible and add alcohol, ignite it, and if it burns with a yellow flame, soda is proven. Dissolve again, and filter, add in excess tartaric acid; shake well and heat. If a white crystalline deposit is formed, potassa is present. An admixture of chloride of silver is often found with the nitrate. Reducing ehloride savings by melting, the liquid ehlutinic silver will take up a part of undecomposed chloride, keeping it even in its nitric solution and in its crystalline form. Only in very weak solutions the chloride will separate in its well-known shape.

CHARLES EHRMANN,

Secretary.

PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.—Minutes of the stated meeting held December 7th, 1881, the President, Mr. Joseph W. Bates, in the chair.

The minutes of last meeting were read and approved.

Mr. Wallace described a new form of printing-frame, the back of which opening lengthwise, enabled the printer to examine a much larger portion of the picture than

was possible with the present style of frame.

Mr. Samuel Sartain exhibited a number of prints from gelatin negatives, the work of Mr. H. P. Robinson, of Tunbridge Wells, England. The great charm of these pictures laid in the thoroughly artistic handling of the subjects; this, together with the careful chemical manipulation, rendered them truly works of art.

Mr. Corlies exhibited a highly successful form of an instantaneous shutter of his own devising, together with a print from a negative made with it.

Mr. Carbutt then proceeded to describe the process of making lantern transparencies on gelatin plates. He was aware that, heretofore, good slides on these plates were seldom obtained, but having given the subject considerable attention, he was now prepared to say that, for certainty and ease of preparation, nothing could be better adapted to this purpose than a gelatin plate. He stated that a slow-working plate was essential, those prepared by him especially for this purpose having about one-third to one-half the rapidity of the ordinary landscape or "A" plate.

The speaker now exposed several plates under negatives to the light from an argand burner, giving exposures varying from twenty to sixty seconds, according to the densities of the negatives. These plates he now proceeded to develop according to the following formulæ:

Oxalate of Potash Solution.

Oxalate of Potash, . . . 5 ounces.
Oxalic Acid, . . . $\frac{1}{2}$ ounce.
Water to make 25 ounces of solution.

Iron Solution.

Protosulphate of Iron, . . . 800 grains.
Water to make 8 ounces of solution.

Bromide Solution.

Bromide of Potassium, . . . $\frac{1}{2}$ ounce.
Water, 4 ounces.

Developer.

Oxalate Solution, . . . 5 ounces.
Iron Solution, . . . 1 ounce.
Bromide Solution, . . . $1\frac{1}{2}$ drachms.
Water, 2 ounces.

Fixing Solution.

Sat. Sol. Hypo. Sulph. Soda, . . . 1 part.
Water, 1 "

The speaker recommended first immersing the plate in an old developer, in order to start development, and finally finishing in a fresh solution. This, he said, gave more certainty of clean results, besides bringing the development more under control. As a rule, he said, it was better to over-develop, and reduce the intensity, if necessary, by means of the following

Clearing Solution.

Solution cyanide of potassium (pure) 10 grains to the ounce, saturated with iodine. To $\frac{3}{4}$ ounce of this solution add $7\frac{1}{2}$ ounces of water. After a thorough washing, carefully apply the clearing solution with a tuft of cotton, until the part to be acted upon is reduced sufficiently; wash, and immerse for five minutes in the

Alum Solution.

Powdered Alum, . . . 3 ounces.
Common Salt, . . . 1 ounce.
Water, 30 ounces.

Wash the plate thoroughly and allow to dry. Varnishing is unnecessary.

To illustrate the value of the clearing solution, the speaker exposed a plate under a negative having a faulty sky. On development, the defective parts of the positive were treated with the cyanide in the manner previously described, with entire success, without in any way affecting or injuring the rest of the picture.

Mr. Carbutt closed his interesting lecture by showing upon the screen a number of lantern slides made in the manner just described, which were much admired by the members.

Mr. Leaming showed some specimens of the new bromo-gelatin paper, and explained the process of working the same.

On motion, adjourned.

C. R. PANCOAST,
Secretary.

DR. J. M. EDER has been appointed Professor of Chemistry at the Imperial Academy of Architecture and Machine Industry in Vienna.

ANSWERS TO QUESTIONS TO THE CRAFT.

ON page 382 of our last issue we put the following *questions to the craft*:

1. What has been your experience with emulsion plates? Are you having success with them, and what advantages do you find in their use?

2. What have been your failures with them, and what the causes thereof, and what the cure?

3. Do you think they will ever enable you to discard the bath and collodion?

4. Do they place you in the way of producing more artistic work?

5. How do your patrons like the resulting pictures?

6. Are your patrons more appreciative than formerly?

7. What are the prospects for business during 1882?

8. Any further hints for the good of our co-workers, will you kindly add them?

We have received a great many interesting answers and valuable ones, too, from noted members of our craft, some of which we append below. We shall be pleased to have further responses, and they will be given place in our future issues.

When they cease to come in, or mayhap sooner, we shall have something to say as a summing up. Read all carefully.

In compliance with your request, I answer your questions as follows:

1. My experience with emulsion plates is now a year old, and I have experience enough to say that with a reliable brand of plates success is a certainty; the advantages gained are pre-eminently that we can take pictures on them when the wet-plate would produce a failure.

2. The failures with them have been many, particularly in the earlier stage of my experiments. They consisted mainly in green and red fog, caused, probably, by an overdose of ammonia, or, perhaps, in the preparation of the plates, as since August last this evil has not presented itself except *once*. I have had thin negatives, the plates losing too much in fixing, yet they appeared strong enough under the developer. This must be a fault in the plates, as other lots of same manufacture came out all right. These plates were afterwards intensified in

1 ounce bichlor. of mercury, 1 ounce chloride of ammonia, and 50 ounces of water, and, after washing, blackened in 20 ounces of water and 50 drops of ammonia.

3. The present high price of the plates precludes the exclusive use of them. I use them when I have no other recourse, but still keep my silver-baths in good order for large plates. I use them all together.

4. When the negative from a dry-plate is a success, it is certainly better and finer than from a wet-plate, but when a failure, it is worse than the silver-bath will produce.

5-6. My patrons regard the introduction of the new invention as a great stimulus to go to the photographer, as I have noticed by many inquiries whether I could work the process.

7. If business keeps on to run in the channels which it is now pursuing, I predict a splendid holiday and spring business. Even in spite of the bad weather, I have no complaints to offer.

8. As a concluding remark, I would say to all live photographers, study the new process, and it will put money in your pockets. You are at least always prepared to make a sitting, when on the other hand you would be obliged to turn visitors away. I have often made successful sittings at 4.30 P.M. in October and November.

Hoping that my remarks may induce many of the craft to take up the new process, and if not entirely adopting it, yet using it as a valuable help in case of necessity; but as the dry-plates may not at all times be perfectly reliable, do not discard your old form, the silver-bath.

HENRY ROCHER,
Chicago, Ill.

I will answer your few pertinent questions in the order in which you present them, and after doing so, I beg leave to add a few other remarks that happen to be uppermost in my mind at present, which, if agreeable to your censorship, are entirely at your service. Your first question is, What has been your experience with emulsion plates? Are you having success with them, and what advantages do you find in their use?

Answer. Considerable. Partial. None for gallery work.

Question 2. What have been your failures with them, and what are the causes thereof, and what the cures?

Answer. To tell of my failures throughout would fill a good-sized book; and as a cure for the defects, why I'm not yet able to decide; as a reason, the faults have not all presented themselves.

Question 3. Do you think they will ever enable you to discard the bath and collodion?

Answer. For out-door work, and as sketch work for the engraver, possibly.

Question 4. Do they place you in the way of producing more artistic work?

Answer. No.

Question 5. How do your patrons like the resulting pictures?

Answer. Invariably they only ask to be pleased, not regarding the why or the wherefore.

Question 6. Are your patrons more appreciative than formerly?

Answer. Yes; as a rule patrons are better educated, if only from casual observation.

Question 7. What are the prospects for business in 1882?

Answer. Harder work and no better pay.

The preceding answers to your six or seven questions, I fear are not such as you require, or even expected. Indeed, though I have just written them, I find that they are anything but satisfactory to myself; however, I have no doubt you will receive from many others to whom the same class of questions has been forwarded, something at least more reassuring and conclusive.

In your November issue of the *Philadelphia Photographer*, page 340, is a synopsis of the proceedings before the Chicago Photographic Association, where Dr. Garrison gave to the members quite an interesting account of his dry-plate experience in company with Prof. Bastian, during a concerted trip through Virginia. The above Doctor relates that after deciding upon a *holiday* trip, he bethought him how nice it would be to procure a ten-dollar dry-plate outfit. (A few doors from my place of business there is a sign hung across the street, "Three dozen gem portraits for twenty-five cents," this has nothing to do with the two gentlemen spoken of). They, in their tramps through Virginia, experienced, I have no

doubt, just what hundreds of others have already done. As many of the leading photographic stock-dealers, and almost all the literature pertaining to our business, have of one accord loudly proclaimed the advantages of this new bonanza. I can now more easily understand the fact that where theoretical demonstration is made to look like bright gold, or even burnished brass, the real practical substructure of brick and mortar presents but few attractions to the eye of the æsthetic in general, or the professional photographer in particular. Of course, they, the agitators in this new field, know what they say, and some undoubtedly speak from experience, or otherwise. I beg, however, most respectfully to differ from a few of the more enthusiastic converts, in some few points at least, one of which is in reference to the time of exposure—shortness of exposure, which is really the most important part in their announcement; and indeed it is, as I think, the very keystone to their existence. As an offset, however, to this almost universal concession, I can, in my own crude way of practice for instantaneous work, show better detail than is perceptible in the decapitated mule, and my friend Maybridge knocks the spots out of anything as a practical experimenter in quick work, wet-plates at that.

The illustrations in the November number of the *Philadelphia Photographer*, taken by yourself in ten seconds exposure, certainly cannot be claimed as a success in the way of quick work, and as for the other good points in the view, result, I presume, from you trying to make it as near like a passable wet-plate as you knew how.

In one point, however, I will concede that the dry-plate formulators have all the advantages that is laid claim to. The most striking is the attractiveness, completeness, and low price of an outfit. Some of *my* neighbors—amateurs—have invested twenty-five dollars, others I hear as much as fifty dollars, remarking in the way of consolation for themselves—"just to try the thing."

This new deal in dry-plates will, I have no doubt, put into the pockets of manufacturers at least a hundred thousand dollars the first year of their introduction. You will, I know, Mr. Editor, the more readily sym-

pathize with me, if, so far as heard from, I happen to be the only one in the business that can't as yet see the great benefit that has befallen the fraternity.

My own experience in the dry-plate, gelatin and emulsion processes, is but very limited. Still, to be considered truthful to the end, I must confess that I was, at one time, one of the favored few in this same field of research; such being the case, pardon me if I act and feel somewhat like the burnt rehin.

Some time back, I spent a small fortune coquetting with 45 grs. of Nelson's No. 1, 28 grs. Cox's, 200 grs. Nelson's No. 3, etc. Since then I have concluded that theory and practice are two distinct parts of a grindstone, "the handle, etc." Indeed, I became blindly infatuated with the many remarkable properties that seemed to exist in commercial gelatin, and I assure you, Mr. Editor, that when once you get your hand in, in that direction, as the saying goes—"It will stick to you like glue." I was only released from its over adhesive qualities by a very practical discovery, (not new, however,) quite in another direction. It was that "Fools and their money, etc."

The only real importance, I think, to attach to this new departure, is the more general awakening to the old desire to accomplish in practice what is so plausible in theory; that is, to find a way to succeed with instantaneous exposure. Then I believe, and then only, will a new field be open, having so many advantages, that though necessitating the carrying of a complete dark-room on one's back, will hardly be thought objectionable if we accomplish by the means only a truthful representation of nature as seen in the "twinkle of an eye." Such representations must be far removed, however, from the so-called instantaneous productions of the dry-plate work of to-day.

There is, Mr. Editor, another branch of our business that has, I fear, been neglected so long, that I doubt the possibility of any change for the better; and that is as regards the prices now paid for photographic work in general. I do hope that some clear-headed financier will step forward to our relief, and promulgate a way out of this over-

whelmingly distressing condition. Photographs as now usually produced by a great many in the profession, are really works of art—surpassing in some cases the expectation and judgment of the producer. Yes, even satisfying sometimes the exacting requirements of a very ungrateful public—I mean ungrateful when their own individual photographs are in question. But, Mr. Editor, the remuneration for such productions is not at all in proportion to the ability and labor required.

Yours truly,

JOHN A. TODD,
Sacramento, Cal.

[Much against our will, we are here obliged to suspend this part of our correspondence until our next issue. From present appearances we shall have a rich mine of information on the subjects embraced in our "Questions," and we promise to delve into it so far as we may without crowding out other pressing matter.—ED. P. P.]

FRENCH CORRESPONDENCE.

Mr. Muybridge at Paris—Chronometric Stop of Mr. Paul Boca—Engraving Process of Mr. Gobert—Paper, Gold-beaters' Skin, Celluloid, and Gelatin, as supports for Pellicular Negatives—A Deluge of Laboratory Lanterns—Double Frame, with Curtains, of Mr. Gilles—Gelatin of Mr. Charles W. Heinrich—Artistic Exhibition of the Central Union of Fine Arts applied to Industry.

MR. MUYBRIDGE has just had in Paris the greatest and most legitimate success, by showing his remarkable instantaneous reproductions of animated nature. In his honor a meeting was organized in the studio of our illustrious painter, Mr. Meissonnier, who had invited to this exhibition the élite of his colleagues and a great number of notabilities of the arts and the press. It suffices to give a few names to have an idea of the character of this assemblage, at which were Alexandre Dumas, Gérôme, Cabanel, T. Lefebvre, A. Lambert, Detaille, de Neuville, Falguière, Heilbuth, Bernellecourt, etc. The projections executed by our skilful projector, Mr. Molteni,

showed the prints of Mr. Muybridge not only enlarged, but in motion, even; several of them excited the enthusiasm of the painters and of the whole audience, and their author was warmly congratulated. The moral of all this, for us, is that we have here for photographic art a brilliant example of its utility for artists; example still more important from the fact that it was given in the house of one of the most renowned painters of the present time, Mr. Meissonnier, an avowed adversary of the right of photographers to secure the ownership of their works, as may do artists, painters, designers, and engravers. In this connection, Mr. Muybridge has rendered signal service to our cause.

At the two last meetings of the French Photographic Society, mention was made of the chronometric stop of Mr. Boca, a veritable masterpiece of precision. Many times, as our worthy readers know, we have had to speak of stops, because they are one of the pressing wants of photography as now practised, since products more and more sensitive are coming into use. For this reason, stops rush in from all quarters. All have some advantages. All mark some progress over their predecessors, but, up to the present time, none had reached the point of perfection attained in the chronometric stop of Mr. Boca. In fact, this instrument allows one to measure with great precision the time of an exposure known in advance. Thus, if it is desired to expose for one or several fiftieths of a second, it suffices to bring the needle of a dial on the divisions of the dials answering to this duration, in order to obtain the action of the stop during this time, in a very exact manner. If the skilful constructors of this appliance will make it so as to produce results that may be compared one with the other, it will be an excellent thing for photographers, as they would be enabled to exchange communications on the duration of their respective exposures, in taking for basis any determined number of the divisions in the Boca stop. At the last meeting, that of last night, Mr. Boca showed that he obtained a rapidity of one-fiftieth of a second. This, in our opinion, whilst showing reasonable rapidity, is not yet sufficient for

instantaneous work, which is coming more and more into use. There is, therefore, something more to be added to this instrument, which is valuable for exposures of one-fiftieth of a second up to five seconds. It should be made capable, if necessary, of much greater rapidity, and you will not be surprised when you hear me express the hope that it will be able to give a specified velocity of one five-hundredths of a second. We think that this result might be obtained by adding a shutter which would not bear upon the anchor escapement of the chronometer, but on the double spiral spring, whose force of tension should be calculated or verified experimentally, to give a rapidity such as we have pointed out. This falling shutter would be placed back of the objective, in the same manner as the double shutter of the present stop, and would only be used in case the one-fiftieth of a second would prove insufficient. In short, it would realize the desideratum of great rapidity for reproductions made very near the object in motion, which crosses the field of the objective. The increase in the rapidity in plates is constant. Yesterday a process was given to render fourfold their sensitiveness. To-morrow this last rapidity will be increased fourfold, and there are no limits to this increase; it is therefore necessary to construct stops that will answer for all the exigencies of the future. With this limitation, we cannot but give great praise to the appliance of Mr. Boca.

If we wished to mention all that was interesting in the two first meetings of the French Photographic Society, we would require all the space, already so well filled, of one of the numbers of the *Philadelphia Photographer*. We are, therefore, forced to only take, may we be pardoned the expression, what is on top of the heap. For this end, the process described and even experimented with at the meeting, by Mr. Gobert, deserves a rather extended mention.

There is question of a photo-engraving process on copper, process which, according to the candid avowal of Mr. Gobert, is the same as that previously described by Mr. Stroubenski, with this difference, however, that the mixture of gum and bichromate

used by the Russian inventor, is replaced by bichromatized gelatin.

Let us describe this process, which is quite simple. The sensitizing liquid is made with albumen diluted with one-half-water, and in which has been made a rather concentrated solution of bichromate of potash. This liquid, well filtered, is spread on the surface of a highly-polished and plane copper-plate. The film should be very thin, and for this it is necessary to use the process of the revolving table, so well known to all manipulators of bitumen. Dry at once the plate at a moderate heat to avoid the coagulation of the albumen; then, when it has returned to the ambient temperature, apply to the negative of a line object. Expose, and not long, on account of the great sensitiveness of the bichromatized albumen. Then place at once in water. The water dissolves rapidly all non-exposed parts of the sensitive film, and there remains a hardly perceptible image on the copper. To see this better an ingenious artifice indicated by Mr. Stroubenski is made use of. This consists in immersing the plate in a rather saturated solution of aniline red. The lines of bichromatized albumen take up this red, and they then show very distinctly. Wash in water, so as to free the plate from all coloring matter except that retained and fixed by the albumen. In this manner it may be seen if the print is complete, and if the rest of the operations may be proceeded with, that is to say, the execution of the engraving properly so-called. The print is now allowed to dry, then, the edges being preserved by a varnish insoluble in alcohol, bitumen dissolved in benzine, for example, we may proceed to the biting. The mordant is the alcoholic solution of perchloride of iron indicated by Mr. Stroubenski. This solution, far from softening the albumen, coagulates it still more, since alcohol on the one hand and perchloride of iron on the other are both coagulators of albumen. The reserve portions are, therefore, not affected by the mordant, which energetically attacks the copper and bites it sufficiently to soon produce a copper-plate engraving, very fine, very pure, if the cliché used as a positive possessed these qualities. If a relief is to be made it is necessary to use a negative. To sum up,

nothing is more simple than this process, and Mr. Gobert was well inspired in repeating well-known experiments, and especially in improving them in the most happy manner. All the operations mentioned above were done in the presence of the photographic society, and with entire success.

We have said that this process, applied by zincography, would give very satisfactory results. The zinc might be sensitized in the same manner, but after having treated it with a solution of gall. After exposure and development of the image, the exposed parts should be treated with a water-bath, weakly acidulated with acetic acid, the ink then applied, and the plate cleaned. The zinc would only take the ink in the uncovered lines, and thus it would be possible to obtain, more rapidly than with bitumen, zinc plates that could be printed from in the same manner as a lithographic stone. It appears that Mr. Robert, of the War Department, has been operating in this manner for some time back.

One of the things that now occupy the minds of investigators are flexible, light, and translucent supports, that can be used instead of glass, to lessen the weight and risk of breakage of negatives to be used on excursions. Some produce paper sensitized simply with bromized gelatin. Others wish to give to this paper the property of abandoning the image at will, so that it may not only be reversed, but carried on a support more translucent than its first vehicle. In this direction Mr. Balaguy appears to have obtained entire success by using stearine-paper. This same amateur of photography has made some interesting experiments on gold-beaters' skin, which offers, after suitable preparation, the advantages of being very thin, very translucent, and admirably adapted, it appears, to the making of photograph negatives of medium size. Messrs. Fortier and David continue their experiments with celluloid; up to the present time nothing goes to show that there is much to be expected from this substance. Mr. Stebbing, Mr. Fortier, and others confine themselves, for the present, to sensitized gelatin pellicles, which give at once the glassy translucency, but lack an essential

property—reversibility. We believe that it is possible, even with gelatin supports, to obtain this last result. However, the minds of investigators are awakened, and soon we shall be embarrassed to choose among the supports of sensitized films capable of advantageously taking the place of glass.

Another class of subjects, coming after the numerous stops and the multiple supports, takes up much room in the meetings of photographic societies. It rains a very deluge of laboratory lanterns, each claiming to be more simple, more perfect, more portable than the others. Were Diogenes to return again among us to roll his cynical life in his tub, he would have no difficulty in finding a lantern to search for a man. He would, perhaps, find more lanterns than men—we, who write and read, excepted, let it be understood. From what is complicated we turn to the simple; and at the last photographic meeting at Paris there were no less than three lanterns borrowed from the illuminating systems used in public rejoicings. Mr. Gilles showed an apparatus of this kind well adapted for a laboratory lantern for sedentary work, but not very portable, as when unmounted, it takes up almost as much space as before. Another offering, much more interesting, from this same skilful constructor, consisted of a double frame with curtains. Two curtains, one moving on one side of the frame, the other on the opposite side, prevent any light penetrating into the frame, as is the case in frames having slides running in the upper portion. For plates of large size it is not possible to avoid the penetration of light in the old system, however well the adjustment may be made. The frames of Mr. Gilles fill a want caused by the great sensitiveness of the plates now used.

For the information of those concerned we mention the gelatin of Mr. Charles W. Heinrich at Höchst, Germany; manufacturer of the gelatin, Leins L. Hausenblase. This gelatin, experimented with by very competent men, seems excellent, giving surfaces free from greasy and all other spots. This substance, to-day, plays so important a part, that too much attention cannot be paid to obtaining an article whose good qualities are so well recommended.

A special exhibition of industrial arts is about being organized for August, 1882. It will comprise *wood, paper, and textiles*. Photography will be admitted, but only in its artistic applications to the three groups mentioned above. This means that reference is made but to really artistic works. We hope that from America, where are to be found so many photographers of taste, such as Gutekunst, Sarony, Mora, and many others, we shall receive some specimens destined to represent the high rank in the photographic world attained by our skilful colleagues of the New World.

We will refer again to this subject as soon as it shall have been definitely decided that this exhibition is to be an *international* one.

LEON VIDAL.

PARIS, December 3d, 1881.

GERMAN CORRESPONDENCE.

New Euryscope Lens—Stannotype again—Expenses for Wet- and Dry-Plates—Difficulties in Making Gelatin Plates.

IN one of my last letters I referred to a new Steinheil objective, and now I have again occasion to report about another new lens. At the last meeting of the Society for the furtherance of Photography, at Berlin, a new euryscope, constructed by Voigtlander & Sohn, was exhibited, which instrument differed in no way, externally, from the older euryscope. Shape, dimensions, and even stops, are identical with those of the older instruments; but the focus is materially shorter, and consequently the strength of light and the angle of the field of view considerably larger, so that one can make, with the new instrument, pictures as large as with the older one. The focal distance of the old euryscope of 19''' diameter is, for instance, equal to 331.7 mm.; that of the new instrument, with the same dimensions, only 252.7 mm., and the strength of light stands in the reversed quadratic proportion of this focal distance.

The experiments I made corroborated the above statement in all particulars. The new instrument requires only 10 seconds, where the old one requires 17.5 seconds. The exactness is unexceptionable. It is certain that

Voigtlander gave us, with his new instrument, a great improvement upon the old euryscope. Mr. Prumm tried, in the meantime, the instrument in the portraiture line, and obtained excellent results. He finds the strength of light about one and a half times greater than in the old euryscope, and the depth quite excellent; and the new instrument excels, in regard to working capabilities, the rapid rectilinear lens.

In reference to the Woodbury process in its new shape, as Stannotype, about which I made mention in my last letter, the German patentees, Messrs. Schaarwächter and Prumm, who were recently questioned concerning their intentions at the meeting of the Society, made some communications. Mr. Prumm said: "The tin-foil relievoprint (so he calls the process) has only the gelatin relievoplate in common with the old Woodbury process, from which plate the printing matrice is produced without the medium of a dear hydraulic press. It cannot be doubted that very excellent results can be obtained with the process, as, indeed, among all the photo-mechanical processes, Woodbury's method is the only one which can compete in regard to tone, especially with portraits, with the common albumen process."

Vidal gave as a supplement to his work a picture made with the tin-foil relievoprint, after a negative by Prumm, which is very fair; but not always such good results could be depended upon, as not every negative is adapted for this process, and the climatical influences here make the manipulations of each chrome-gelatin relievoprocess extremely difficult and unreliable, especially in summer, which is the reason that also the pigment process could not get a strong footing here. Even the beautiful transparent pictures made with the pigment process cannot be offered with a good conscience to the public, as most of them become detached, after a while, from the glass, against which defect no remedy has been found as yet. But, to make a chrome-gelatin relievoprocess, as it is required for the Woodbury process, especially for the tin-foil relievoprint, is yet much more difficult and unreliable than to make a pigment picture. Neither Mr. Schaarwächter, nor the

speaker, could afford, as yet, to risk their valuable time in experiments without any reasonably sure prospect of success. It is further annoying that the prepared paper for the copies has to be imported from France, as the separate manufacture of the same requires special, expensive implements. The speaker, however, declared that he did not mean to convey the impression that he had rejected the process, which was not so; and he further remarked that, according to the *Bulletin de la Societe belge*, Mr. Woodbury was just engaged in introducing his process in Belgium; and if the process proves to be as successful there in practice, in the hands of its inventor, as it was found to be in single instances, the German patentees will give more attention to it.

Dr. Eder, the indefatigable photographic chemist, published the other day a paper on the consumption of silver in the negative process, the wet as well as the dry process. For dry-plates he used Vogel's emulsion and gelatin emulsion; and he first established the fact that the percentage of bromide of silver contained in the plates of both emulsions is about the same for an equal space. Then he determined the quantity of the silver which is really used up in forming the picture, and the quantity which is retained in the wash-bath and the fixing-bath. He thereby arrived at the following result:

The silver upon the plate is used up as follows:	In bromide of silver gelatin process.	In the wet-collodion process.
To form the picture,	16-21 per ct.	20-21 per ct.
Retained by the developer and wash-water,	0 " "	50 " "
Retained by the fixer,	74-79 " "	27-30 " "
Retained by the draining-paper, .	0 " "	0, 8-2 " "

These figures show not alone that, in fact, for the processes often used in practice in the wet-collodion process, not only the smallest quantity of silver is required for manufacturing the plates, but also that the silver used is absorbed mostly in the photographic formation of the picture; but that with bromide of silver gelatin plates, judiciously and economically manufactured, the consumption of silver is about the same, and conse-

quently that the latter process is not inferior to the former in an economical sense. Furthermore, it has to be taken into account that in the bromide of silver gelatin process, as well as in any other emulsion process, three-quarters of the whole quantity of silver finds its way into the fixing solution, *i. e.*, all the quantity which is not required for the formation of the picture. In the wet-collodion process the matter is different; here, the bulk of the remaining silver goes together with the developer into the wash-water, and only about one-third to one-quarter in the fixing solution, similar as in the albumen process. Special stress is laid upon the latter fact, as not a few old, practical hands throw away the fixing-baths, as the recovering of the silver seems too troublesome to them. They only precipitate the developing solution and wash-waters after developing with salts, through which chloride of silver is obtained. If this *modus* entails already the loss of half the residuary silver in the wet process, the proportion would be yet much more unfavorable in the emulsion process, entailing the loss of all the residuary silver. The opinion that the more recent emulsion process is not more costly than the old wet process, I cannot

share, however. It becomes dearer in so far as it is more unreliable, and because not alone much emulsion is spoiled in the preparation, but also many plates spoil.

Many complaints have been heard of late about the gelatin plates obtained in the market, when a new house tried to find a market here. The first plates were brilliant; the second series, however, much inferior; the plates were not more sensitive than the common wet-plates. On the other side it was understood that a well-known gelatin-plate manufacturer met with the greatest difficulties during the summer to turn out a good article, and that often the emulsion spoiled. Gelatin is a much less reliable preparation than either albumen or collodion. I, myself, had unsatisfactory experience enough with this preparation. It took us fifteen years to be able to make a reasonably serviceable collodion, and to-day we have not overcome all difficulties, and it will take at least just as much time until we have surmounted all difficulties with gelatin. I refer here only to the difficulties met with by practical photographers in the carbon-printing process, up to to-day.

DR. H. W. VOGEL.

BERLIN, November 30, 1881.

Editor's Table.

PICTURES RECEIVED.—We have received from W. B. GLINES, Norwalk, Conn., a package of portraits of ladies, gentlemen, and children which are very creditable, and show a great improvement over his former work. We are pleased to note such progress in photographic art. It is an evidence of perseverance and close application. A very pretty and nicely printed portrait of a young miss comes to hand from Mr. J. S. YOUNG, Rome, Ga., showing fine artistic skill in Mr. YOUNG. From Mr. LE RUE LEMER, Harrisburg, Pa., a fine portrait of a gentleman, which is creditable as a work of art. From F. F. MONTANO, Honolulu, H. I., some exceedingly fine views of the lava flow at Hilo, Hawaii, and of the great crater Kilman. These views are of great interest, representing, as they do, the flow of lava, and the crater while in a state of eruption, and present the most vivid delineations of volcanic ac-

tion. They are the first views ever taken at such a time of volcanic action, and reflect great credit upon Mr. MONTANO as a skilful and enterprising artist. We are glad to learn that he has found a ready sale for large numbers of these views. Mr. MONTANO also sends us several Honolulu papers which advertise his views and praise him for his work, which he so richly deserves. GEORGE N. COBB, Binghamton, N. Y., sends us four large panel pictures, which are very fine. Two of them are of brides, and show very fine manipulation in the white drapery. We are glad to see photographers producing this class of work. Mr. COBB is one of our progressive artists, and is winning much merited praise.

NOTE.—The editor has had to take several leaves out of *his* "table" this month, in order to make room for the luxuries supplied in the other departments of the feast.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.



December 8th.—Just received a consignment
of richly carved
ANTIQUE TABLES.

WANTED.—An artist for water-color and India. Must be good on copies; one that can retouch negatives, or do some other work. Address
C. S. ROSHAN,
408 Market St., Harrisburg, Pa.

FOR SALE.—Best-located gallery in South Jersey; doing a good business; situated on the prominent street; fine north top and side light; only one flight of stairs; splendid entrance; water, gas, and instruments complete for making good work. Population of town, 9000. Only one other gallery in the place. If sold within two months, will sell for less than it is worth.
Address MILLVILLE,
P. O. Box 417.

WANTED.—For a permanency, a thoroughly competent printer. One having a general knowledge of photography preferred. Address, with references and terms, which must be moderate,
E. G. LACEY, Morristown, N. J.

FOR SALE.—Photographic gallery, No 180 Sixth Ave., N. Y. First gallery on block below Macy's store. Apply to
E. J. LECOQ, Proprietor.

WANTED.—A lady retoucher. Must be strictly first-class. Address, stating salary expected,
C. H. TOWNSEND,
Box 342, Willimantic, Conn.

The August, 1880, issue of this magazine is wanted by parties to make up sets. One dollar each in books or seventy-five cents in cash will be paid for each copy sent in good order to this office. Please hunt up over copies and send them to

EDWARD L. WILSON,
914 Chestnut St., Phila.

FOR SALE.—Paying gallery, very cheap. Fine location and no opposition. Without doubt a big bargain if sold soon. Gallery will pay for itself inside of six months. Address at once
"C," care of H. Lieber & Co.,
82 East Washington St., Indianapolis, Ind.

RARE CHANCE in "Magic City of the West." First-class photograph gallery for sale at a bargain. Best location in city. Or would let to right party for liberal share. Address
B. D. STOUT, Box 270, Lincoln, Neb.

FOR SALE, at a bargain, the best-paying gallery in this part of the State. Gallery and dwelling combined. No competition. Outfit first-class. Will sell the whole for \$1500. Reason for selling, poor health. For terms address
J. M. FIGLEY, La Harpe, Ill.

WANTED.—A strictly first-class crayon artist, one who can also do India-ink and water-color work. Must be strictly first-class. Address
G. M. DEANE,
615 Main St., Kansas City, Mo.

FOR SALE.—Eight volumes of *Philadelphia Photographer*, bound from 2d to 9th, at \$2.00 per vol.; one volume, No. 10, unbound, \$1.50.
T. P. VARLEY,
Woodwardville, Md.

For SALE.—Gallery, apparatus, fixtures, fittings, and lease of store and dwelling, of an old-established, well-patronized, and only establishment in the city of Toronto, where the cash is paid at time the sittings are made. Price, \$1600, or would take a partner with from \$800 to \$1000. For further particulars address

J. C. Brooks,
P. O., Toronto, Ont.

N.B.—Principals only treated with.

A REAL NECESSITY.

WE presume there is hardly a lady to be found in our broad land who, if she does not already possess a sewing machine, expects some day to become the owner of one.

The household of a young wife is now considered incomplete without a sewing machine.

Next to her lover the thought uppermost in the mind of the maiden just blooming into womanhood, is a sewing machine.

When asked by her parents or affianced what her Christmas or birthday present shall be, the answer in a majority of cases is, "A sewing machine."

But after the mind has been fully made up to purchase one of these indispensable articles, the question arises as to what kind of a machine to buy.

It should be so simply constructed that the most inexperienced can successfully operate it.

The other points mainly to be considered, and which are the most desirable, are durability, rapidity, capacity for work, ease of operation, regularity of motion, uniformity of tension, and silence while in operation.

Of all the various machines now upon the market, the "Light-Running New Home" fills the above requirements most satisfactorily.

It is said to combine the good points of all other sewing machines, and, in addition, has many new improvements and labor-saving devices.

The price is no higher than that of other machines, and every lady who is the happy possessor of one may rest assured she has indeed a treasure.

All who send for the company's new illustrated catalogue and enclose their advertisement (printed on another page), will receive a set of fancy advertising novelties, of value to those collecting cards, etc. Their address is, JOHNSON, CLARK & CO., 30 Union Square New York.

For sale by

D. S. EWING, 1127 Chestnut St., Philada.

50 PER CENT. REDUCTION.—In order to introduce my work to the photographic trade generally, I have decided to make Crayons, Water Colors, and Ink work, either free hand or on solars, at one-half the regular prices, for a short time only. Heretofore my business has been confined to a few galleries, but now I mean to extend it, and use this means to do so. This reduction of price, however, will not in any way affect the quality of the work, as I always have, and always shall, put out only the very best of first-class work. In order to show those who do not know my work that it is the best of its kind, I will, upon application, mail a list of the finest references in this country. Address

HARRY PLATT, Artist,
Washington, D. C.



WILSON'S PHOTOGRAPHICS

Is the most complete, thorough, photo-instruction book ever published. Second thousand in store. See advertisements. \$4.

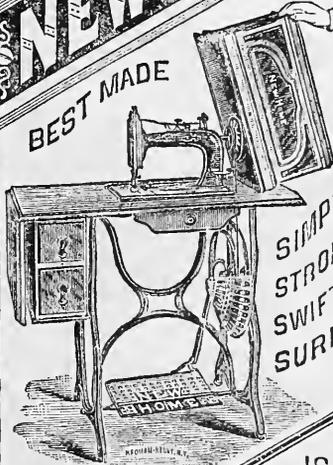
THE PLATINOTYPE PROCESS.—Having disposed of their printing business in New York, Willis & Clements will now devote the whole of their time to manufacturing chemicals for the process, and to instructing licensees in working. They have appointed Thos. H. McCollin, 631 Arch Street, Philadelphia, Sole Trade Agent for the sale of the special materials and apparatus used in the process. Willis & Clements will answer all letters of inquiry concerning the process.

Proprietors of patents, WILLIS & CLEMENTS,
631 Arch St., Philadelphia, Pa.
Agent, THOS. H. MCCOLLIN,
631 Arch St., Philadelphia, Pa.

NOTE.—On receipt of \$1.75 a small supply of chemicals and paper will be sent to any one desiring to try the process.

MAKE YOUR OWN ENLARGEMENTS.—The Patent Gem Solar Camera will print the finest enlargements on albumen, platinum, or plain paper. Only \$60. Send for reduced price-lists of larger instruments. D. A. WOODWARD, Baltimore, Md.

THE MOST POPULAR
OF ALL
SEWING MACHINES
is the
LIGHT-RUNNING
NEW HOME
BEST MADE
SIMPLE
STRONG
SWIFT
SURE
IS
HAS NO EQUAL
ALWAYS
AND IN ORDER
WILL LAST
A LIFETIME
SURPASSES ALL OTHERS
Johnson & Clark & Co.
30 UNION SQ. NEW YORK
CHICAGO ILL.
ORANGE MASS.



D. S. EWING,
1127 CHESTNUT ST., PHILADELPHIA, PA.

NOTICE.

THE WONDERFUL ECRYSCOPES and NEW PORTRAIT LENSES.

Just received, a large invoice of the above Lenses. Those who have not succeeded in getting them, will do well to send in their orders at once.

BENJAMIN FRENCH & Co.,
Boston.



WILSON'S PHOTOGRAPHICS

Shows you how to group and pose children naturally and gives fine examples of work. Read the partial index herein. \$4.

S. G. NIXON, Portrait Artist, 813 Arch Street, Philadelphia, Pa. Solar enlargements finished in crayon, water color, and Indian-ink in true artistic style, and the likeness and expression faithfully preserved. Also small colored and Indian-ink work, etc. Terms moderate.

Osborne's Patent Picturesque Foregrounds and Statuary Pedestals,

FOR PHOTOGRAPHIC COMBINATION PRINTING.
Manufactured by W. D. Osborne, Philadelphia, Pa. The Osborne Foregrounds have been in use for some months, and are now a necessity. See two examples in the Philadelphia Photographer for January, 1882. The Osborne Statuary Pedestal has just been introduced, and supplies a want long felt. It is a neat and harmonious pedestal upon which to print "statuary photographs." Made on paper, can be used right or left, and mailed free on receipt of price, \$1.00 each. Can be used for many different negatives. Full directions for using Mr. Osborne's novelties free to applicants.

SCOVILL MANUFACTURING Co., Trade Agents,
419 & 421 Broome St., New York.
W. IRVING ADAMS, Agent.

PATENTS

We continue to act as Solicitors for Patents, Caveats, Trade Marks, Copyrights, etc., for the United States, Canada, Cuba, England, France, Germany, etc. We have had **thirty-five years' experience.**

Patents obtained through us are noticed in the **SCIENTIFIC AMERICAN.** This large and splendid illustrated weekly paper, \$3.20 a year, shows the Progress of Science, is very interesting, and has an enormous circulation. Address **MUNN & CO., Patent Solicitors, Pub's. of SCIENTIFIC AMERICAN, 37 Park Row, New York.** Hand book about Patents free.

Warm weather and yellow paper. If you wish your paper to keep white, use the Peerless Extra Brilliant Pearl.



WILSON'S PHOTOGRAPHICS

DEVOTES 58 pages to instructions in posing and lighting the figure. See advertisements. \$4.

6. b e l y s x

A RARE CHANCE TO LEARN SHORT-HAND.—Rowell & Hiccox, the publishers of the *American Short-hand Writer*, have opened the most complete school of short-hand in the United States at Boston, Mass.

For \$1.50 they will send this year's volume of their magazine, containing a full course in phonography, and correct the lesson exercises of all subscribers by mail, free. This offer holds good until January 1st, when the price of subscription is to be advanced to \$2.50. When the fact is known that a full course of instruction taken at their school in Boston costs \$75, the rare chance afforded by this extraordinary offer may be realized. Short-hand clerks, not expert, command a salary of \$75 a month upwards, while the standard prices paid for law reporting is \$10 a day. Why not get up a class in phonography here to learn through this medium? We will head the list ourselves, and receive and forward subscriptions for the *Short-hand Writer*.

DECEMBER 1st, 1881.

ADDRESS WILLIAM McLAUGHLIN, 125 S. First Street, Brooklyn (E. D.), N. Y., Corresponding Secretary of Association Operative Photographers of New York, for operators, printers, and retouchers.

No. 18. VIGNETTE PAPERS, No. 18. WAYMOUTH'S.

The old form of No. 18, Waymouth's Vignette Papers, oval, has been discarded, and a *new pear-shaped* style is now ready in its place. It is a beautiful piece of gradation and prints perfectly. Price \$1.25 per dozen. For sale by all dealers. See advertisement.

No. 18. NOW READY. No. 18.

GIHON'S OPAQUE.—As a rule, photographers are familiar with this most convenient article of gallery use, but, doubtless, there are some who still are unacquainted with it. It is just what it claims to be, and so announces on the wrapper of each box: "A dense, non-actinic paint, for stopping out imperfect backgrounds, or defective skies in negatives, for coating the inside of lenses or other brass work, etc." It is an invaluable article, and should have a place in every photographic establishment in the country, whether large or small. A photographer lately remarked to us, "GIHON'S Opaque is worth its weight in gold." This sounds rather exaggerated, as a cake of the compound is quite large, and of some weight; still it is most valuable, and its place can be filled by no other article now in the market.

That Opaque is very generally used, and that its use is daily growing was proved to us on a recent visit to New York. In the store of SCOVILL MANUFACTURING COMPANY, we noticed a large pile of these neat little packages, and on inquiry were assured that the demand was very large, and steadily increasing.

To those who have not tried opaque, we would say, send fifty cents to your stock-dealer and get a cake. You will wonder how you ever got along without it. Sold by all dealers.

Warm weather and yellow paper. If you wish your paper to keep white, use the Peerless Extra Brilliant Pearl.

A NEW Retoucher, by E. A. Gilbert, Meadville, Pa. Send for circular and price-list.

I got up a model and have let fifteen good photographers try it, and twelve of them have given me an order.

NOTICE OF REMOVAL.—Mrs. Clarke, Artist, late of 561 Druid Hill Avenue, Baltimore, begs to inform her friends and the photographic profession that she has removed to 2104 North 20th St., Philadelphia, Pa., where she will be happy to receive any commission for water-color painting. Terms, etc., on application to Mrs. Clarke, or to the office of the *Philadelphia Photographer*.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

By a first-class operator; fourteen years' experience in the business. None but first-class galleries need apply. Address Geo. W. Leas, Lock Box 741, Peru, Ind.

By a young lady to wait on reception-room in a first-class gallery. Can spot, mount, and burnish. Address, stating full particulars, Grace Leigh, Albany, N. Y.

By a moral young man as general assistant, or retoucher, in some good gallery. Wages no object. Oris Barnes, Naples, N. Y.

By a young man. Can operate, print, tone, and finish, also general work through gallery. Can furnish good reference from past employer and others. Improvement more than large salary. Address, Charles Sherman, Box 802, Olean, Cataraugus County, N. Y.

Can operate, print, tone, retouch, and do general gallery-work. Sample of work to those meaning business. Address, J. T. Wiley, Oxford, Chester County, Pa. For reference, to A. McCormick.

By a printer; five years' experience, some at operating. Address, Printer, 15 E. Frederick St., Lancaster, Pa.

By a practical photographer, printer, and retoucher in a good house. Address, Photographer, 262 W. 46th St., New York, N. Y.

By a retoucher. Address, Kiss-me-quick, in care of Douglass & Co., 229 & 231 State St., Chicago, Ill.

J. L. CLARK,
GOLD AND SILVER REFINER,
 ASSAYER AND SWEEP-SMELTER,
 REMOVED TO
 823 Filbert St., Philadelphia, Pa.

RETURNS MADE IN STRICTLY PURE CHEMICALS.

REFERS TO, BY PERMISSION:

- JOHN CARBUTT, Dry Plate Manufacturer, Philada.
- WM. H. RHOADS, Photographer and Artist, Philada.
- GILBERT & BACON, Photographers and Artists, Philada.
- WM. H. CLIFFORD, Photographer and Artist, Philada.



SINGHI'S
VIGNETTING ATTACHMENT
 FOR PRINTING FRAMES.

To be used with WAYMOUTH'S VIGNETTE PAPERS.

(Patent Applied for.)

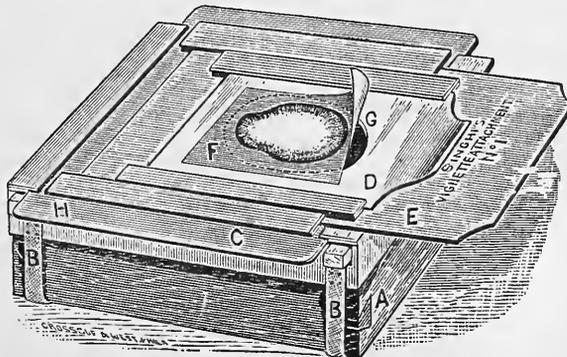
J. F. SINGHI, Inventor.

The best arrangement for adjusting these best of vignetting appliances in the world.

5x8 size now ready.

Price, by mail, \$1.50.

See description in this Magazine, June, 1881, or in *Wilson's Photographics*.



FOR SALE BY ALL DEALERS.

THE PHOTOGRAPHER TO HIS PATRONS

Is a neat little leaflet of twelve pages of the size of the four pages below. It tells your patrons what you want them to see on **Photography as an Art; When to Come; How to Come; How to Dress; How to Behave; and about Children, Business, Frames, Copying, Coloring, and Prices.**

"THERE'S MILLIONS IN IT."

PHOTOGRAPHERS OF AMERICA:

In these times of competition we all want something to *stir up business*. It is believed that no means of advertising, half so good, was ever offered to photographers, as that acceptable little leaflet,

"The Photographer to his Patrons."

Its utility and usefulness are proven by the fact that it has been demanded and translated into Spanish and German; that over

1,000,000 copies have been sold,

and that hundreds of photographers have written to the author, testifying to its great value as a positive *business-bringer*.

I take the liberty of sending you a copy, and ask you, *for your own interest*, to read it carefully all through. I have, since its publication, issued two other works of a similar character—*Pretty Faces*, at half the price; and *Something New*, at the same price. But the choice still seems to be for the old favorite, and I am still supplying it continually. The sample herewith is of a lot lately printed; and I desire to call your especial attention to a method which will secure you all the advantages of this work as an

(i)

the expense of hiring a man and team to distribute then in adjoining towns. I shall, undoubtedly, want more when these are gone. I got \$13.50 for the advertisements."

We endeavor to get them up in attractive and elegant style; and in order to protect those who use them in the enjoyment of them, we have *copyrighted* them, and trust no one will attempt their degradation by cheap and badly-made copies of them. We can print them as cheap as any one can for the quality, and have

RECENTLY REDUCED THE PRICES

to the following scale:

500 copies,	.....	\$9 00
1000 "	.....	15 00
3000 "	.....	36 00
5000 "	.....	50 00

Some photographers have had as many as 25,000, using them continually. Please look into the matter, and send on your orders for all seasons.

We supply, free of charge, several beautiful fancy cuts for the covers: but where three of the pages are covered with other matter, the style of the present sample is the neatest. You can have your own choice.

As already said, these leaflets are used all over the country, often by our leading photographers, from some of whom were received the following testimonials.

(iii)

SAMPLE COPIES FREE. TRY IT FOR AUTUMN AND HOLIDAY TRADE.

advertisement, and yet cost you little or nothing. *The four pages of the cover are yours, to use for what you please.* You only need the first page for yourself. Get advertisements from your neighbors, at a proportionate figure, for the rest, and your leaflets cost you only the expense of distribution.

Messrs. Albert & Son, Alexandria, La., have seven advertisers, another recently had eight. From six of them he got \$1.75 each, and from two, \$2.25 each; making \$15—the cost of 1000 leaflets. Examine the copy herewith.

Mr. H. C. Norman, Natchez, Miss., who has adopted the same plan, writes, viz.: "As an advertising medium the leaflets have no equal. Two hours secured me seven advertisements, amounting to \$17.50, leaving me \$5.00 balance for express charges; thus securing me 1000 leaflets for nothing. With a little energy any photographer can secure cards enough from his friends to pay for all the leaflets he requires, and be should not be without them. I have not only seen, but felt, the result of using them."

Mr. L. B. Truax, Swanton, Vt., writes, viz.: "The leaflets have been received and prove a decided benefit to me. I consider them the best advertising medium I have yet found. The merchants who advertised on the covers seem to be of the same opinion; one of whom went to

(ii)

KEEP YOUR EYE ON THIS!



TESTIMONIALS:

"Send 5000 in English and 2000 in German." JNO. A. SCHOLTEN, St. Louis.

"Let me have a lot as soon as printed."—J. F. RYDER, Cleveland, O.

"It works satisfactorily in every way."—A. N. HARDY, Boston. (Mr. Hardy has had 4 or 5 lots.)

"They are the best business-cards a photographer can have."—T. S. ESTABROOKE, N. Y.

EDWARD L. WILSON, Photo. Publisher,
912 & 914 Chestnut St., Philada.

(iv)

What is said by PHOTOGRAPHERS who use

SCHINDLER'S POSING CHAIRS

AND

DECORATIVE ACCESSORIES.

Address INDUSTRIAL ART WORKS, WEST HOBOKEN, N. J.

Am well pleased with the Chair (No. 53 Centennial); it is the finest Posing Chair I have ever seen, by a large majority, and should be in every photographic studio in the country. I hope you may have a large sale on them.

A. McDONALD, South Bend, Ind.

The Chair came all safe yesterday, and am well pleased with it; everything complete as represented. Should I require anything else in the future, I will remember you.

E. BILBROUGH, Dubuque, Iowa.

The Antique Chair (No. 57) ordered of you gives great satisfaction, both for its artistic design and execution, and its perfect adaptation for photographic use.

J. E. WATSON, Detroit, Mich.

A splendid Posing Chair (No. 53 Centennial), made by C. A. Schindler, West Hoboken, N. J., was shown us a few days ago. It is so carefully contrived that it carries even the most awkward sitter into a graceful pose, thus helping the work of the poser very much. It is upholstered elegantly, too, and tastefully, and will be found a most useful addition to any fine art studio of photographers.

EDWARD L. WILSON, Editor *Philadelphia Photographer*.

I like the No. 53 Centennial Chair the best of any chair I have ever used. The No. 23, Child's Chair, is very good, and the platform does finely. Have not yet been able to sell my Bowdish Chair.

D. P. BARR, San Antonio, Texas.

Your new Posing Chair (the No. 53 Centennial) I consider the most stylish and gracefully designed accessory for the studio; it suggests positions easy and natural, and the shape makes it non-conventional.

RICHARD WALZL, *Rays of Light*, Baltimore, Md.

I am using one of your No. 53 Centennial Chairs, and find it superior over anything I have ever used or seen, and it is especially well adapted for groups of children.

FRANK A. PLACE, Warsaw, Ind.

Schindler's No. 53 Centennial Posing Chair is a great institution of itself, looks well, poses well, takes well in the picture, and sells well. Progressive artists should use them; we have had one in use for over a year, and are very much pleased with it.

J. H. FITZGIBBON, St. Louis *Practical Photographer*.

The No. 53 Centennial Posing Chair is entirely satisfactory. I must say I think it the best operating Chair in the market, and it should find a ready sale.

E. B. IVES, Niles, Michigan.

To say that I have never had a piece of accessory which pleased me better, permits of more changes, or is of more use under the skylight, than the beautiful No. 56 Cabinet, Secretary-Bookcase, with organ and mantle combined, I bought of you, is simply telling facts. I cheerfully recommend it to the fraternity.

Your No. 53 Centennial Chair needs no recommendation. Place a man, woman, or child in it and they at once have a natural and graceful pose. I have chairs which cost me double the money, and would gladly give any one up before parting with this. About the artists' easel, I will simply repeat what my daughter said: "A fine silk dress would not have pleased her better." So you see the money spent for your goods is well spent.

P. M. SCHLEIER, Nashville, Penna.

DEALERS' DIRECTORY.

The following houses are to be recommended as the best for photographers in their localities.

S. T. BLESSING, New Orleans, La.	Douglass, Thompson & Co. "Great Central," Chicago, - - - Ill.	JAMES H. SMITH, Quincy, Ill.
H. A. HYATT, Mound City Photo. Stock House, 411 North Fourth St., St. Louis, Mo.	D. J. RYAN, Savannah, Ga.	J. C. SOMERVILLE, St. Louis, Mo.
SCOVILL MANF'G CO., 419 & 421 Broome St., New York.	D. TUCKER & CO., Buffalo, N. Y.	BLESSING & BRO., Galveston, Texas.
C. H. CODMAN & CO. Boston, Mass.	WILSON, HOOD & CO., 825 Arch Street, Philadelphia, Pa.	B. FRENCH & CO. Boston, Mass.
WM. J. HAZENSTAB, 406 Market St., St. Louis, Mo.	EDWARD L. WILSON, Photo. Publisher, LANTERN SLIDES, 912 & 914 Chestnut St., Philadelphia.	THEO. SCHUMANN, Atlanta, Ga.
OSCAR FOSS, San Francisco, Cal.	G. B O D E, Milwaukee, Wisconsin.	W. D. GATCHEL, Cincinnati, Ohio.

GET THE BEST!

CRAMER & NORDEN'S
ST. LOUIS
EXTRA-RAPID DRY PLATES.

WARRANTED PERFECT,
 With Latest Formulas and Complete Directions for Use.

FOR SALE BY

G. GENNERT, 105 William St., New York, Agent for the Eastern States.	MULLETT BROS., Kansas City, Mo.
DOUGLASS, THOMPSON & CO., Chicago.	H. A. HYATT, St. Louis.
N. C. THAYER & CO., Chicago.	WM. J. HAZENSTAB, St. Louis.
HIRAM J. THOMPSON, Chicago.	JAS. C. SOMERVILLE, St. Louis.
C. J. RICE, Chicago.	H. LIEBER & CO., Indianapolis.
W. D. GATCHEL, Cincinnati.	JAS. H. SMITH, Quincy, Ills.
P. SMITH & CO., Cincinnati and Columbus, O. [ville, Ky.	G. MOSES, New Orleans.
W. D. GATCHEL & CO., Louis-	S. T. BLESSING, New Orleans.
J. V. ESCOTT & SONS, Louisville.	ZIMMERMAN BROS., St. Paul.
	GUSTAVUS BODE, Milwaukee.

THE

Photographic Amateur

A Series of Lessons in Familiar Style for those who desire to Become Practically Acquainted with this Useful and Fascinating Art.

By J. TRAILL TAYLOR,

Editor of the "Photographic Times and American Photographer," and late Editor of the "British Journal of Photography," London.

A Book for every Photographer, Amateur or Professional, and for all who Love the Art, or expect to.

See Review on page 345, "Philadelphia Photographer," November, 1881.

The PHOTOGRAPHIC AMATEUR is thorough without being pedantic, and simple without being shallow. A good idea of the nature and scope of this book will be had by a perusal of the following list of its

CONTENTS.

Acetate toning bath; Achromatic lenses; Acid pyro developer; Alabastrine positives; Albumen paper, printing on; Alcohol, use of, for drying plates; Angle of view included by a lens; Apparatus, selecting; Bath, the silver; Bleaching collodion positives; Burnishing; Buying Silver; Camera stand for studio; Camera stand for portraiture; Care of lenses; Changing bag; Changing box; Chemistry of the silver bath; Chloride of silver; Collodion emulsion; Collodionizing the plate; Collodion, preparation of; Collodion transfers; Collodion, wet process; Copying cameras; Developer, ferro-cyanide; Developer, ferrous oxalate; Developer for wet collodion; Developing collodion emulsion negatives; Developing gelatin negatives; Developing lantern; Development, acid; Development, alkaline; Diaphragms, use of; Discoloration of gelatin negatives; Double dark slides; Dry-plate photography; Dry-plate preservatives; Emulsion, collodion; Emulsion, gelatin; Enameling paper prints (glacé pictures); Extra quick dry collodion plates; Ferrotypes; Films splitting and leaving the plate upon drying; Fixing prints; Focus, depth of; Focus of lens, how to ascertain; Focussing; French chalk; Frilling of negatives; Gelatin emulsion; Gelatin pellicle; Improving landscape negatives; Ink stains on photographs; Intensifier for wet collodion; Intensifying a negative; Intensifying gelatin negatives; Landscape lens; Lantern, pocket; Lantern transparencies; Lenses, care of; Lenses for photographic use; Lime toning bath; Litmus-paper; Medallion printing; Non-distorting lenses; Operating room; Over and under exposure; Pellicle, gelatin emulsion; Photographing during a gale of wind; Photography in a hotel bed-room; Plate vise; Plates in the field; Portrait lenses; Portraiture in a private room; Preservative solutions for dry collodion plates; Printing-frame; Printing positives; Reducing chloride of silver; Recovering silver from its solutions; Removing discolorations from gelatin negatives; Retouching negatives; Retouching negative varnish; Rule for constructing copying camera; Silver, buying of; Silver, recovering from waste solutions; Silver stains, removing from the hands or linen; Stains on the hands; Storing dry plates; Substratum, nature of; Swing backs to cameras, advantages of; Synonyms for a few photographic chemicals in common use; Tests for the washing of prints; Tilting the camera; Toning baths; Toning transparencies; Transfers, collodion; Transfer paper; Transparencies for magic lantern; Trimming prints; Varnishing a negative; Vignettes; Washing prints; Washing prints, test for; Wet collodion process.

DO NOT FAIL TO READ IT. PRICE, 50 CENTS PER COPY.

SCOVILL MANUFACTURING CO., Publishers.

 COPIES MAILED ON RECEIPT OF PRICE, WHICH IS MERELY NOMINAL, BY

EDWARD L. WILSON, Photo. Publisher, 912 & 914 Chestnut St., Philada.

AN OLD ESTABLISHMENT WITH A
NEW BRAND OF ALBUMEN PAPER.

**CLEMONS' BRAND OF
ALBUMEN AND MATT SURFACE, SALTED,
PAPERS.**

Our "Extra Brilliant" Albumen Papers, Pearl, White and Pink, also our Matt Surface (Salted) Papers, can now be had at

\$35.00 per Ream; 90 cts. per Dozen; 10 cts. extra per mail.

Send in your orders at once. Address

JOHN R. CLEMONS, 915 Sansom St., Philadelphia, Pa.

BULLOCK & CRENSHAW,

No. 528 Arch Street, Philadelphia,

MANUFACTURERS AND IMPORTERS OF PURE CHEMICALS FOR PHOTOGRAPHY.
IMPORTERS OF GLASS AND PORCELAIN, APPARATUS, ETC.

**ALBERT MOORE THE SOLAR ENLARGER,
THE LONGEST, LARGEST, AND BEST.
828 Wood Street, Philadelphia.**

A NEW CATALOGUE OF
LANTERN SLIDES AND LANTERNS

READ IT. 13 CENTS IN STAMPS.

TELLS OF GASES WITHOUT BAGS, NEW LISTS OF SLIDES,
THE ELECTRIC LIGHT IN THE LANTERN, NEW LANTERNS.

Lantern Lovers should be sure to Examine it.

EDWARD L. WILSON, 912 & 914 Chestnut St., Philadelphia.

NEW DRESDEN
 EXTRA  BRILLIANT
 ALBUMEN PAPER
 WHITE, PINK, PENSÉ.

FREE from BLISTERS and IMPERFECTIONS.

TESTIMONIALS.

MILWAUKEE, October 11th, 1881.

G. GENNERT, Esq.,
 New York.

DEAR SIR: The paper works lovely, and is a
 Godsend to the photographers.

Very truly, HARRY SUTTER.

MR. G. GENNERT.

DEAR SIR: One ream Extra Brilliant Eagle
 pink received and tried; my printers say it is the
 best they have had for years; it keeps perfectly
 white, which is one of the greatest features for us
 in St. Louis. It prints and tones fine. I am
 satisfied with the beautiful prints I've received for
 the past week, which is something, you know, I
 am hard to be pleased with. Keep it up, and
 send another ream immediately.

Yours truly, J. A. SCHOLTEN.

MILWAUKEE, October 3d, 1881.

G. GENNERT,
 105 William St., New York.

DEAR SIR: I wish to express my appreciation
 of the Eagle Brand Albumen Paper. I am
 highly pleased with it, it being the best I ever
 used, and for purity of tone and clearness in the
 high-lights and shadows it cannot be excelled.

HARRY SUTTER.

G. GENNERT, Esq.

DEAR SIR: I have received the 10Ko and
 SKo Eagle light pink albumen paper which you
 sent me a few weeks ago, and now I have care-
 fully tried it, I can but say it is by far the best
 paper we have worked for a long time. Hoping
 the quality will remain the same for all time to
 come, I shall not want to use another brand.

Yours truly, H. ROCHER.

IMPORTED BY

G. GENNERT,
 105 WILLIAM ST., NEW YORK.

FOR SALE BY ALL DEALERS.

1882.

Photographers'
 Booksellers,
 Stationers,
 and
 Newsdealers
 Publishers of
 Hints on Burnishing
 Photographs,
 AND THE
 Photographers' Monthly
 Bureau of Information



1882.

We are
 MERCHANTS
 in
 ALL REQUISITES
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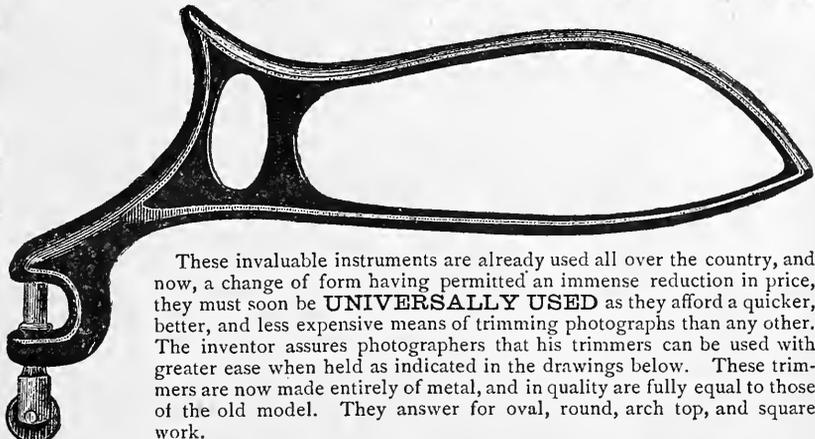
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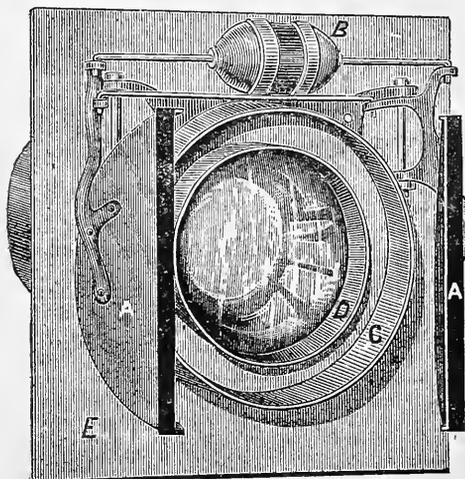
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- XVIII. Portraiture—The Management of the Sitter.
- XIX. Portraiture—The Pose.
- XX. Portraiture—Groups—Proportion.
- XXI. Back grounds.
- XXII. Accessories.
- XXIII. Some Old Notions Touching Portraiture.
- XXIV. Chiaro-oscuro.
- XXV. Chiaro-oscuro—Detail or Definition.
- XXVI. Chiaro-oscuro—Various Arrangements of Light and Shade.
- XXVII. Chiaro-oscuro—Various Arrangements of Light and Shade (*continued*).
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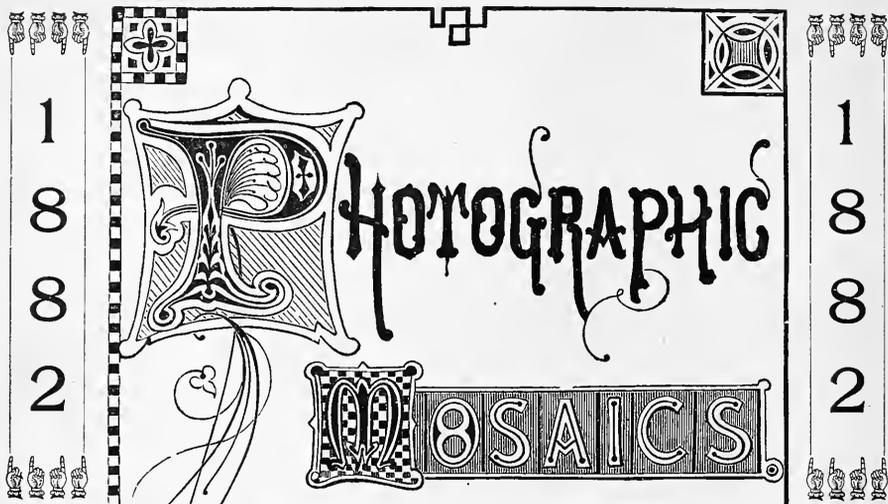
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	PAGE		PAGE
Our Picture,	33	Removal,	45
Professor Draper,	34	Society Gossip,	46
Elements of Success,	35	Foreign Briefs,	51
A Monument to Daguerre,	37	Answers to Questions to the Craft,	52
Removing Prints from their Mounts,	38	French Correspondence. By LEON VIDAL,	57
Magic-Lantern Transparencies,	39	German Correspondence. By DR. H. W. VOGEL,	60
On Washing Gelatin Emulsion. By WILLIAM ENGLAND,	41	To Simplify the Manipulation of Vogel's Emulsion,	62
Considerations on the Present Status of Photography,	42	Editor's Table,	63

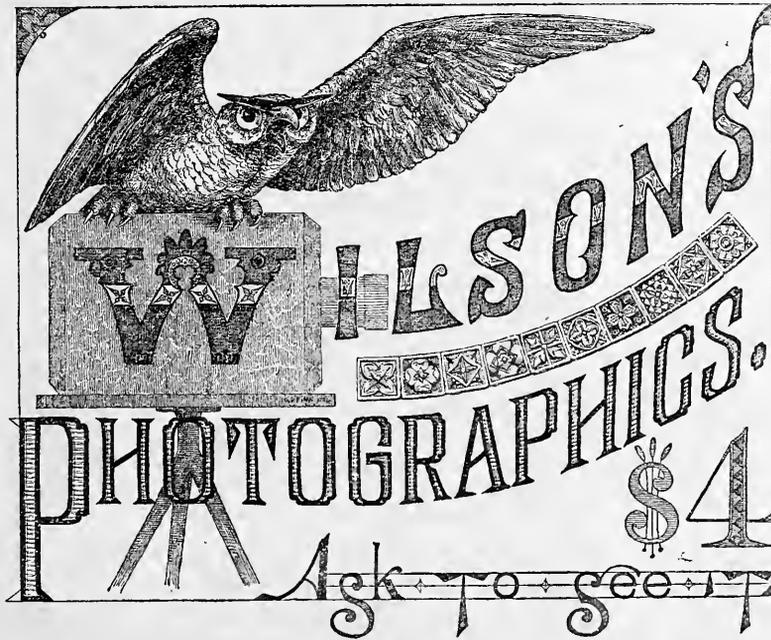
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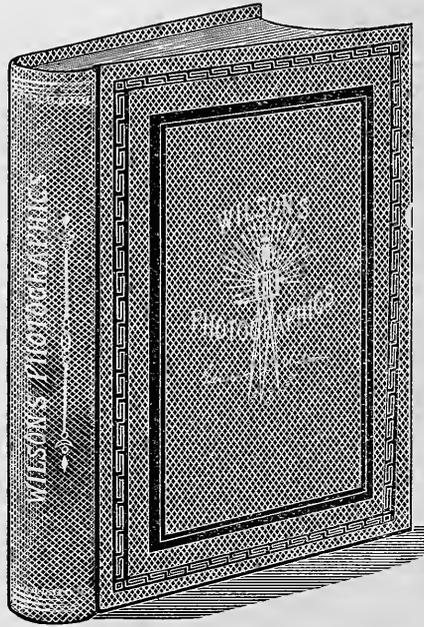
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 Bath, Boiling down the.
 Decolorizing the Printing.
 Fusing the.
 Rectifying the.
 Removing Albumen from the.
 Testing the Strength of the.
 The Fixing.
 The Nitrate.
 Troubles.
 Black and White Negatives.
 Blistering of Prints.
 Blueness of the Film.
 Bold Prints from Flat Negatives.
 Breadth of Effect.
 Brilliancy in a Photograph.
 Bromo-Gelatin Emulsion Work.
 Alkaline Developer for.
 Calculations, Table for.
 Carbutt's Cruet for.
 Chemicals for.
 Development of.
 Drying the Plates.
 Exposure of.
 Fogging of.
 Friming of.
 Intensifying.
 Printing.
 Rapidly of.
 Reducing.
 Retouching and Varnishing.
 Spreading the Gelatin.
 Strengthening.
 Washing.
 Burning the Prints.
 Camera, Care of the.
 How to tell a good.



Card-Board, Cockling of the.
 Cheapness.
 Chemicals and Solutions, The.
 Chemistry of Out-Door Formulae.
 Chiaro-Oscuro, or Light and Shade.
 Chloride of Gold, Saving.
 of Silver, into a Metallic State.
 Clouds and Sky, The.
 in Out-Door Views.
 Printing in.
 Collodion Bromized.
 Changes.
 Double Iodized.
 for Hot Weather.
 for Interiors.
 Intense.
 Out-Door, Water In.
 Troubles.
 Collodion Transfers.
 Coloring.
 Gelatin Paper for.
 Iodizers for.
 Printing.
 Collodionizing the Plate.
 Color, Good, Printing for Negatives.
 Composition, Angular.
 Circular.
 Pyramidal.
 Concluding Confab.
 Contraction and Expansion of
 Paper.

Contrasts, Violent.
 Correctness and Comparison.
 Curtains for the Studio.
 Dark-Room, The.
 Dark-Tent, The.
 Defective Toning of Prints.
 Defects and Dryness of Albumen Paper.
 Dense Negatives, Printing.
 Developer, The Iron.
 The Iron and Ammonia.
 Development, The.
 Best Rule for the.
 Diaphragm.
 Use of the. [Printing.
 "Doctoring" Negatives for
 Drapery, Raphael's arrangement of.
 Drying-Box for Phototype
 Plates.
 Cupboard for Emulsion
 Plates. [Plates.
 Cupboard for Phototype
 Oven for Phototype Plates.
 Room, The.
 the Paper.
 the Prints.
 Vogel's Collodion Emulsion.
 Education of Photographers.
 Effect, Breadth of.
 Effects, Brilliant.
 of Light.
 Encaustic Paste for Prints.
 Enlargements and Lantern Slides.
 Enlarging Carte-de-Visite Negatives.
 Exposure for Phototype Plates.
 for Platinotypes.
 of Bromo-Gelatin Plates.
 Shortening.
 Time of.
 Eye, Education of the.
 of the Sitter.
 Faces, The Study of.
 Fading of Prints.
 Ferrous-Oxalate Developer, The.
 Field Work.
 Figures in.
 Foreground Study in.
 Film, Blueness of the.
 Weakness of the.
 Filtering Albumen for Phototypes.
 Gelatin for Phototypes.
 Finishing and Mounting.
 Fixing.
 Flat Negatives, Printing.
 Flatness and Want of Contrast.
 Fogging.
 Formation of Network on the Film.
 Fumes, Poisonous.
 Fuming the Paper.
 Fusing the Bath.
 Glace Prints.
 Glass, Preparation of the.
 Studio, The.

Gold Toning-Bath, Treatment of the.
Gun-Cotton, The.
Hands, The.
Stains on the.
Harmony.
Horizontal Lines.
Husnik's Process for Phototypes.
Intensifier, The.
Ammonia and Mercury.
Bichloride of Mercury.
Ferrid Cyanide.
Iron and Acid.
Perchloride of Iron.
Permanganate of Potash.
Pyrogallic Acid.
Schlippe's Salts.
Silver and Acid.
Interior Work.
Kaolin, Rectifying Printing-Bath with.
Landscape Apparatus.
Photography.
Views, Formula for.
Lantern Slides and Enlargements.
Leaking of the Glass Studio:
Lens or Objective, The.
Lenses, Angle of View Possible with.
Choice of.
Forms of.
Light and Accessories.
and Shade, or Chiaro-Oscuro.
Reflected.
Lighting, Rembrandt's Style of.
"Lightning" Processes.
Linen, Printing on.
Lubricating the Prints.
Managing the Model.
Manipulations, The.
Manipulatory Miseries.
Marbled Appearance of the Paper.
Red Lines on Prints.
Mealiness in Prints.
Measles or Mottles on Prints.
Measuring Metrical.
Medallion Printing.
"Megatypes."
Metallic Spots in Prints.
Model, Study the.
Mounting and Finishing.
- Paste.
= without Cockling.
Nature, Study.
Negative, A Generally Wretched.
Negatives, Black and White.
Defects in,
"Doctoring" for Printing.
for Solar Printing.
Preserving of.
Printing Dense.
Printing Weak.
Removing Stains from.
Network, Formation on the Film of.
Objective or Lens, The.
Objects, Distances of.
Only Lines in Negatives.
Opaque for Negatives, Gibon's.
Outside Photography.
Chemistry of.
Work, Art Principles in.
Work, Clouds in.
Work, Exposure.
Work, Keeping Plates for.
Work, Tent for.
Over-Exposure of Bromo-Gelatin Plates.
Paper, Cockling of the
Drying the.
Expansion and Contraction of.

Fuming the.
Keeping White the.
Marbled Appearance of the.
Sensitizing the.
Woolliness of the.
Paste for Mounting.
Patches and Stains on Prints, Yellow.
Perplexities, Printing.
Perspective.
Photography, Landscape.
Phototypes, Basis for.
Exposure of the Negatives for.
Husnik's Substratum for the Plates for.
Inking the Films for Printing.
Pinholes.
Plain Paper, Printing on.
Platinotypes, Sensitizing the Paper for.
Cleaning and Washing.
Development of.
Exposure of the Paper.
Poisons.
Porcelain, Printing on.
Posing, Suggestions about.
Preserving Negatives.
Printing, Art in.
by the Solar Camera.
Dense Negatives.
Development Process of.
Flat Negatives.
Medallions.
on Albumen Paper.
on Various Surfaces.
Stereoscopic Views.
Temperature in.
Vignettes.
Weak Negatives.
Printing-Bath, The.
Decolorizing the.
Strengthening the.
Printing-Room, The.
Prints, Acidifying the.
Blistering of the
Burnishing the.
Defectively Toned.
Drying the.
Encaustic Paste for.
Fading of the
Fixing.
Glaze.
Imperfect Washing of the.
Lubricating.
Measled or Mottled.
Metallic Spots in.
Refuse to Tone.
"Spotting" the.
Touching Out.
Treatment with Alum of the.
Trimming.
Warm-Water Washing of.
Washing in "Lead Water."
Washing the.
With Red Marbled Lines.
Yellowness of the.
Productions of Photography, The.
Public, Relation of the Photographer to the
Pure Whites in Prints.
Quick-Acting Processes.
Red Patches on Prints.
Reducing Process for Solar Negatives.
Reinforcing the Negatives.
Rembrandt's Style of Lighting.
Removing Stains from Negatives.
Retouching Bromo-Gelatin Plates.
Process, Solar Negative.
the Negatives.

Reversing the Negative, Apparatus
Robinson's Print Trimmer. [for.
Screens and Curtains.
Sensitizing Paper for Platinotypes.
the Paper.
the Plate.
Shortening the Exposure.
Silver Iodide, to make.
Saving, Method of.
Solutions, Volumetric Test of.
Sky and Clouds, The.
Softness in Lighting.
Solar Camera Printing.
By Artificial Light.
Camera Printing Negatives, retouching.
Negative Reducing Process.
Retouching Process.
Stains from Negatives, Removing.
on the Hands.
Stereoscopic Views, Printing.
Negatives Preparing.
"Stop," Use of the.
Streaks and Stains in Negatives.
Strengthening Gelatin Emulsion Plates.
the Printing-Bath.
Studio, the Glass.
Construction of the.
Curtains.
How to Build a.
Leaking of the Glass.
with Curved Light.
Working Plans for Construction.
Subject, Choice of.
Treatment of.
Table for Converting Centigrade into Fahrenheit.
for Converting Cubic Centimetres into Ounces, etc.
for Converting Metrical to Troy Millimetres into Inches, etc.
Temperature in Printing.
Tent, The Dark.
Testing of Silver Solutions.
Toning the Prints.
Bath, Treatment of the Gold.
Defective.
Solutions.
Touching out Prints.
Transfers, Collodion, Iodizers for.
Coloring.
Developer for.
Fixing.
Gelatin Paper for.
Printing.
Transparencies, Bromo-Gelatin.
for the Magic Lantern, To make.
Treatment of the Subject.
Use of the Diaphragm.
Varnishes and Varnishing.
Ventilation of the Dark-Room.
Views of Interiors.
Collodion for.
Exposure for.
Figures in.
Light for.
Selection of.
Vignette Printing.
Paper, Weymouth's.
Printing Attachment, Singhi's.
Vogel's Collodion Emulsion.
Warm Water for Washing Prints
Wash-Room for the Prints.
Wastes and their Worth.
Weymouth's Vignette Papers, Use of.
Weakness of the Film.
Woolliness of the Paper Surface.
Yellowness of the Prints.

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We beg to call your attention to the following Price Lists of



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Ne Plus Ultra Apparatus Outfits.

All Articles of which are Warranted Accurate in every Respect.

OUTFIT A, complete, price \$10, comprises a VIEW CAMERA, black, with rubber bellows and rigid platform, for making 4 x 5 inch Pictures; 1 Patent Double Dry-Plate Holder; 1 Tripod Camera Stand; 1 "Waterbury" Achromatic Nickel-Plated Lens with Standard English Flange; 1 Carrying Case.

OUTFIT B, complete, price \$12, comprises a VIEW CAMERA for taking 5 x 8 inch Pictures. Same style as A Camera. 1 Patent Double Dry-Plate Holder; 1 Tripod Camera Stand; 1 "Waterbury" Achromatic Nickel-Plated Lens with Standard English Flange; 1 Carrying Case.

OUTFIT C, complete, price \$18.50, comprises a VIEW CAMERA for making 5 x 8 inch Pictures. This Camera is constructed so as to make either a CABINET PICTURE on the full size of the plate (5 x 8 inch), or, by substituting the extra front (supplied with the outfit) and using the pair of lenses of shorter focus, it is admirably adapted for taking STEREOSCOPIC NEGATIVES, also by the same arrangement two small pictures, 4 x 5 inches each, of dissimilar objects can be made on the one plate. Included in this outfit are also 1 Patent Double Dry-Plate Holder; 1 large "Waterbury" Achromatic Nickel-Plated Lens with Standard English Flange; 1 pair "Waterbury" Achromatic Nickel-Plated Matched Stereoscopic Lenses; 1 Tripod Camera Stand; 1 Carrying Case.

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OUTFIT No. 201, complete, price \$26.50, consists of a MAHOGANY POLISHED CAMERA for taking pictures 4 x 4 inches, with *Folding Bellows Body*, single swing, hinged bed and brass guides. It has a shifting front for adjusting the sky and foreground, also 1 Patent Double Dry-Plate Holder; 1 Taylor Folding Tripod; 1 Canvas Case to contain Camera and Holder.

OUTFIT No. 202, complete, price \$27.00, consists of a FOLDING MAHOGANY CAMERA for taking 4 x 5 pictures, same style as 201 Camera; also, 1 Patent Double Dry-Plate Holder; 1 Canvas Carrying Case; 1 Taylor Folding Tripod.

OUTFIT No. 203, complete, price \$41.00, consists of a FOLDING MAHOGANY CAMERA, fully described in American Optical Company's Catalogue, and well known as the '76 Box. It is adapted for taking 5 x 8 pictures, and also for taking stereoscopic views, together with 1 Patent Double Dry-Plate Holder; 1 Canvas Carrying Case; 1 Taylor Folding Tripod.

Cameras in Outfits 202 and 203 have shifting fronts, and are equal in style and finish to the best of the American Optical Co.'s make.

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4 x 4 Holders, for two Plates,	each, \$3.00
4 x 5 " " " "	" 3.00
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For a choice of Lenses suitable to these Outfits, see next page.

MORRISON'S Wide-Angle View Lenses.

PATENTED MAY 21st, 1872.

These Lenses are absolutely rectilinear; they embrace an angle of fully 100 degrees, and are the most rapid *wide-angle* lenses made. We recommend them for use with the foregoing outfits.

Price of Morrison's Wide-Angle Lenses.

No. 1, $\frac{3}{4}$ Diam. of Lens, 4 x 4 in. Plates, 3 in. Equiv. focus.	Price each,	\$25.00
No. 2, 1 " " " 4 x 5 " " $3\frac{1}{2}$ " " " " " "		25.00
No. 3, 1 " " " $4\frac{1}{2}$ x $7\frac{1}{2}$ " " $4\frac{1}{4}$ " " " " " "		25.00
No. 4, 1 " " " 5 x 8 " " $5\frac{1}{4}$ " " " " " "		25.00

MORRISON'S Rapid Stereoscopic Lenses, FOR INSTANTANEOUS VIEWS OR LAWN GROUPS.

They are entirely different, in many particulars, from any other lenses in the market. They are 6 inch focus and $1\frac{1}{4}$ inches in diameter, and are, of course, made in matched pairs, with a set of diaphragms also for 5 x 8 views.

A novel and ingenious instantaneous drop is also provided, passing through the brass work, on the same principle as a central stop, by which *absolutely instantaneous views* may be made, sharp all over to the very edges, without being diaphragmed down.

PRICE, EACH, \$40.00.

" P E E R L E S S " Quick-Acting Stereoscopic Lenses FOR PORTRAITURE OR VIEWS.

We can also furnish the following, either single or in pairs:

These lenses are especially designed for Stereoscopic Photography, and are so constructed that they will work well for interiors or exteriors.

They are particularly adapted for instantaneous work.

Diameter of Lenses, $1\frac{1}{2}$ inches; focal length, $3\frac{1}{2}$ inches.

By removing the back lens and substituting the front combination, a focal length of $5\frac{1}{2}$ inches is obtained.

They are supplied with six Waterhouse Diaphragms in morocco case.

PRICE, PER PAIR, \$25.00.

Imitation Dallmeyer Lenses FOR LANDSCAPES.

PRICE, PER PAIR, \$17.00.

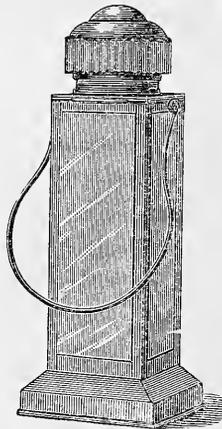
Undoubtedly the best Photo. Lenses yet produced. Amateurs will find these Lenses perfectly adapted to their use.

[See next page.]

THE SCOVILL DRY-PLATE LANTERN

PRICE, \$1.50 EACH.

Designed especially for use by the photographer or amateur in the dark-room, when developing plates and putting them in the plate holders. Guaranteed, when lighted and closed up, to throw out nothing but ruby rays. It has sixty-three square inches of glass, through which enough light shines to enable the occupant of the dark-room to watch the development of the largest size dry-plates made, and at the same time to see the chemicals and everything used in manipulation. The illustration here presented conveys a good idea of the lantern when closed.



In height the Scovill Lantern is a trifle over twelve inches, and is four and a half inches square. Each corner is protected by a strip of metal, which acts as a double safeguard. It not only prevents white light from the inside stealing out there, but it also keeps the four panes of ruby glass from any ordinary risk of breakage. For the latter reason the Scovill Dry-Plate Lantern is a great improvement over lamps with ruby chimneys, which, being unguarded, are so easily cracked or broken, and such a trouble to replace. In point of safety this lantern is infinitely to be preferred to a lamp of any style. By patented devices the top vent and the lower draft holes are so constructed that no white rays can escape through them, and thus the lantern is perfected for use in the dark-room.

SOME POINTS ABOUT THE NEW LANTERN.

It is readily extinguished.
It utilizes the entire wick.
It is not liable to crack the glasses.
It requires less than ordinary care to keep clean.
It is simple and easily understood.
It is not liable to get out of order.
It wants no skill, care, or attention in use.

It requires only to be kept in oil.
It gives at all times a symmetrical flame of maximum size.
It maintains a full and brilliant flame as long as the oil lasts.
It is easy to wick.
It is conveniently lighted.

For sale by Photographic Stock-Dealers, and the

SCOVILL MANUFACTURING CO.,

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419 & 421 Broome Street, New York.

December 1, 1881.

ATWOOD'S PATENT REVERSIBLE **Printing Frame.**

This Frame is square. It is made with double corners, and in utility combines the action of the regular and the lengthwise Printing Frames. The back also is square, with small blocks cut out to fit the corners, thus allowing the back to be placed upon the negative so that the springs and hinges will extend either lengthwise or crosswise of the subject. The advantage of this action will easily be perceived.

Suppose the negative of a standing figure to have been placed in the Atwood Frame and the back put in with the springs parallel to the length of the subject. Either half of the backboard can be opened and thrown over on the other, in this manner allowing such an examination of the print as to show a view from the head to the foot.

Again, in printing from a group negative the back of the Atwood Frame can be placed to open crosswise of the negative, thus giving an opportunity when examining the print of seeing all the faces.

In printing a landscape where cloud negatives are used, and the back has been set in the manner just described, it is possible to contrast the sky with the other features of the view on the print.

There is no reason why prints from two 5 x 8 negatives of different subjects may not be made at one time in an 8 x 10 Atwood Frame. Other good uses will be apparent, and we need not enumerate them. The back can be made to open two-thirds instead of at the centre where so desired and ordered.

PRICE LIST

ATWOOD PATENT REVERSIBLE PRINTING FRAMES.

Size for 1-2 negatives, each,		\$0 75
" 4x 4 "	" "	90
" 8x 10 "	" "	1 20
" 10x 12 "	" "	1 60
" 11x 14 "	" "	2 75
" 13x 16 "	" "	3 50

Supplied by Photographic Stock-Dealers, and

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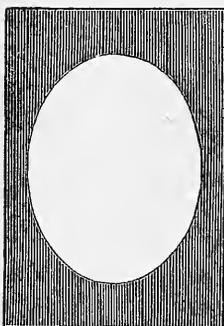
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Is designed for Completely Obscuring the Imperfect Backgrounds of Copies, Retouching Negatives, Faulty Skies in Landscapes, Coating the Inside of Lenses or Camera Boxes, Backing Solar Negatives, Covering Vignetting Boards, And for answering all the Requirements of the Intelligent Photographer in the Production of Artistic Results in Printing.

Wherever you want to keep out Light, use Opaque.

It is applied with a brush, dries quickly and sticks.

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Are the very best that are made, and are now without a rival in the market. They are clean cut, most desirable shapes and sizes, and made of non-actinic paper, manufactured specially for the purpose. Each package contains 30 Cut-Outs, or Masks, with corresponding Insides, assorted for five differently sized ovals and one arch-top.

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Parties wishing special sizes, or large lots of a few sizes, may have them cut to order promptly, by addressing the manufacturer. No lot costing less than \$1.00 made at a time.

No printer should attempt to make medallion pictures without them.

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Beware of spurious imitations made of common paper, full of holes, badly cut, and odd shapes and sizes. Ask your stock-dealer for GIHON'S CUT-OUTS, and see that they are in his envelope, with instruction circular included.

Promenade Size now Ready. Sold Separately at 50 cents per Dozen.

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Trade Mark.

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Removed to Leominster, Mass.,

where I have fitted up a factory with every facility for the production of *perfect plates*.

Should your dealer decline to furnish *these* plates, because of the larger margin on those of higher price, send directly to the undersigned.

PRICE LIST.

Size of Plates.	Per doz.	Size of Plates.	Per doz.
3¼ x 4¼ inches	\$0 65	8 x 10 inches	\$3 50
4 x 5 "	0 90	10 x 12 "	5 00
4¼ x 5½ "	1 00	11 x 14 "	7 00
4¼ x 6½ "	1 25	13 x 16 "	9 00
5 x 7 "	1 50	14 x 17 " double thick glass	10 00
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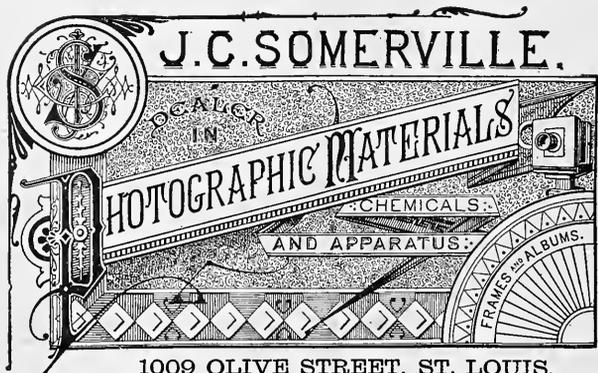
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No. 218.

OUR PICTURE.

AGREEABLE to promise made some time ago, and delayed by the difficulty found in making a proper collection, we present our readers this month with eleven studies from the best Parisian galleries. The originals were cabinet and boudoir size, collected for us by our esteemed cotemporary and correspondent, Mr. Leon Vidal, of Paris. It will be seen at once that these pictures are all that art and skill could create under the photographic skylight. None of them were made for our purposes, but were selected by our friend with a view to the improvement and cultivation of his American readers. We owe him many thanks for the pains which he has taken to instruct and help us. What he says concerning them, in another place, is an added kindness which we cannot soon forget. He seems to highly approve of the plan we have adopted of thus bringing a number of studies to the notice of our readers in one mosaic group, rather than devoting the whole space allotted for our embellishment to one picture alone; and we believe that this plan, followed largely last year, was very acceptable, and won for us much approbation. We have other similar pictures in preparation for this volume, among which one will be presented shortly of pieces of "Photo-Statuary," by Mr. J. A. Scholten, of St. Louis, and nine beautiful combination pictures by Mr. H. P. Rob-

tography. The prints were made upon the well-known brand of albumen paper manufactured by Mr. John R. Clemons, of Philadelphia, after the formula so often given in our magazine. We find this paper to be easily worked, and in every respect to suit our purposes. In arranging these pictures, we have tried to follow the rules of composition so far as the arrangement of the subjects would allow us. We believe they will bear study when measured by the rules of art. We have also placed a diagram at the bottom of the card, that the prints may be designated and the names of the artists who produced them made plain. We hope that it will not be long before we can present other groups of similar merit from some of the other studios of the great cities of the Continent, in order to enable our readers not only to see home work, but the best of the foreign work. It will doubtless encourage them as well as help them. Mr. Vidal writes concerning our present studies as follows:

The photographic prints, the reproduction of which appears in the present number, come from some of the best-known Paris houses. There can be no doubt of this when it is seen that they are specimens of the work of Messrs. Nadar, Waléry, Mieczkowski, Liébert, Bengue, and Van Bosch.

It does not follow that in Paris, as well as elsewhere in France, there are not other establishments capable of producing work

equally as good, but this collection shows the average French work in its best acceptation.

Print No. 10 represents the work of Mr. Nadar; Nos. 1 and 3 are by Waléry; No. 2 is from Mieczkowski; Nos. 4, 7, and 11 are from Bengue; Nos. 5, 6, and 9 are by Van Bosch, and No. 8 is from Liébert; the last being made by the electric light. The average prices of these prints are as follows: Cards, 25 francs per dozen; albums, 50 francs per dozen; promenades, 70 francs per dozen; boudoirs, 90 francs per dozen; salons, 120 francs per dozen; panels, large, 150 francs per dozen.

Mr. Waléry charges 40 francs per dozen for cards and 80 francs for albums. But all the pictures made in this establishment are enamelled, and, besides, Mr. Waléry has a reputation acquired by his excellent work which enables him to obtain these high prices.

In all these establishments, gelatino-bromide plates are used. At first some apprehension was felt, which, however, now no longer exists, and the gelatin process is almost entirely practised.

Electricity for lighting is not much used; Mr. Liébert being alone. He uses the reflecting mirror of Mr. Vonderweide, and I do not think, up to the present time, this mode of lighting is liked by the sitters. Nevertheless, it was a happy thought that of introducing the sun into the house, and to be able to use the light regularly at any hour and weather. Let us hope that this progress will be like all others, and become general, and then we will wonder that this improvement was not adopted sooner, forming, as it does, an essential element in all large photographic establishments.

Pictures like this, representing specimens of the work made in different countries, would form a very interesting collection. Photographers consulting them, would find posings and lightings worthy of imitation. We cannot have too many of these little pictures, which are better than the silhouette, showing, as they do, lines and modelling.

Mr. Wilson's idea in undertaking this publication, appears to us worthy of all praise, and we hope he will push it to the

end—that is to say, that he will exhaust the series of the principal centres of the old and the new world, in which is to be found beautiful and good photographic work.

If we esteem ourselves happy in giving some samples of our French production, we, on the other hand, would not be sorry to see what is being done elsewhere by our most famous colleagues in the large cities of all countries. There is much to be gained in thus bringing together in comparison the best photographic work. LEON VIDAL.

PROFESSOR DRAPER.

MOST of our readers have doubtless learned before now of the death of this gentleman, whose name is so inseparably and honorably connected with our art, particularly in its earlier days. It need scarcely be said, that in the then crude and undeveloped condition of photography, every one who experimented in it at all, must have done so with a keen scientific interest far different from those motives which lead many a one at the present day to purchase the necessary articles, and use them for purposes of amusement merely—to play with them indeed, and after a short time to consign them to the lumber room or garret, and never to see them again, except when they are finally given away or sent to the auction room.

Men who took up the art in those days, were often compelled either to make their own apparatus or to import it, at great expense, delay, and risk, from Europe, and then begin a series of struggles with failure in every possible form, and depend upon themselves for the solution of their difficulties. A glance at the severe courses of scientific training to which our departed co-worker subjected himself long before the birth of our art, shows him to have been pre-eminently fitted for the active part and interest which he afterwards displayed, for, as we are told, he not only studied chemistry and physics at his home in England, but continued doing so after landing on our shores in the year 1833, graduating with full academic and medical honors from our own University of Pennsylvania, which then stood within stone's throw of where we

now write this notice of his useful and active life, and record our distress that a Divine Providence should have seen fit so soon to remove him from our midst.

We may mention the following honorable positions ably filled by this gentleman: The chair of Physiology and Chemistry in Hampden—Sidney College, Virginia; the chair of Natural History and Chemistry, in the University of the City of New York; the office of President of the Medical Faculty in the same institution, and afterwards President of the Scientific Department of the University.

ELEMENTS OF SUCCESS.

SOME years ago an address was made by the late President Garfield to the ladies and gentlemen of the Consolidated Business College at Washington, D. C., in which he alluded to the success of one of the prominent photographers of our country. There were so many good things in it of service to the young gentlemen and ladies, that are alike applicable to young photographers, that we have borrowed a copy from the gentleman whose photographs were praised therein, for the purpose of making some quotations. This is the season of the year when all young photographers are more or less idle, and we are firmly convinced that the future life and growth of photography will depend on them. Moreover, let us enjoin upon them kindly with the voice of experience the advantage to be gained from study. If you would succeed, and would help to hold up art in the estimation of the people and make it profitable to you as well, you should inform yourself in all the elements that bear upon the art you are practising. A good many photographers whom we have known, go by what they call "the rule of thumb," paying very little attention to exactitude or to the details of any formula that may be given them; as a consequence, their work may always be classed as second grade, their prices the lowest, and they themselves having very little of the respect of the community around them. These same people trust a good deal also to what they term "the spur of the moment;" that is, they decline to

inform themselves fully in any department of their art, feeling that if an emergency should arise they will in some way stumble through, and at least make a tolerable success of what they undertake. On this point Mr. Garfield has some very excellent remarks, which will come in play right here:

"Young men talk of trusting to the spur of the occasion. That trust is vain. Occasions cannot make spurs, young gentlemen. If you expect to wear spurs, you must win them. If you wish to use them, you must buckle them to your own heels before you go into the fight. Any success you may achieve is not worth the having unless you fight for it. Whatever you win in life you must conquer by your own efforts; and then it is yours—a part of yourself.

"Again, in order to have any success in life, or any worthy success, you must resolve to carry into your work a fulness of knowledge—not merely a sufficiency, but more than a sufficiency. In this respect, follow the rule of the machinists. If they want a machine to do the work of six horses, they give it a nine-horse power, so that they may have a reserve of three. To carry on the business of life you must have surplus power. Be fit for more than the thing you are now doing. Let every one know that you have a reserve in yourself; that you have more power than you are using. If you are not too large for the place you occupy, you are too small for it. How full our country is of bright examples, not only of those who occupy some proud eminence in public life, but in every place you may find men going on with steady nerve, attracting the attention of their fellow-citizens, and carving out for themselves names and fortunes from small and humble beginnings, and in the face of formidable obstacles. Let me cite an example of a man I recently saw in the little village of Norwich, N. Y. If you wish to know his name, go into any hardware store and ask for the best hammer in the world, and if the salesman be an intelligent man, he will bring you a hammer bearing the name of D. Maydole. Young gentlemen, take that hammer in your hand, drive nails with it, and draw inspiration from it."

There is one sentence in this little quota-

tion which is the grand central nerve of the whole, viz.: "To carry on the business of life you must have surplus power." This "surplus power," to photographers, means knowledge, the knowledge to be obtained not only in the studio, and from the practice which is available there, but from reading photographic books, works of art, and chemical instruction, business experience, and all that pertains to the elements which are useful in the production of good pictures. Again, the young photographer should learn to be enterprising; to put his whole heart into the work that he undertakes in every respect. On this point Mr. Garfield again gives us some very useful remarks, as follows:

"Only yesterday, on my way here, I learned a fact which I will give you to show you how, by attending to things and putting your mind to the work, you may reach success. A few days ago, in the city of Boston, there was held an exhibition of photography; and to the great surprise of New England, it turned out that Mr. Ryder, a photographer from Cleveland, Ohio, took the prize for the best photography in America. But how did this thing happen? I will tell you. This Cleveland photographer happened to read in a German paper of a process practised by the artists of Bohemia—a process of touching up the negative with the finest instruments, thus removing all chemical imperfections from the negative itself. Reading this, he sent for one of these artists, and at length succeeded in bringing the art of Bohemia into the service of his own profession.

"The patient German sat down with his lenses, and bringing a strong, clear light upon these negatives, working with the finest instruments, sounding and strengthening the outlines, was able at last to print from the negative a photograph more perfect than any I have seen made with the help of India-ink finish. And so Mr. Ryder took the prize.

"Why not? It was no mystery. It was simply taking time by the forelock, securing the best aid in his business, and bringing to bear the force of an energetic mind to attain the best possible results. That is the only way, young ladies and gentlemen, in

which success is gained. These men succeed because they deserve success. Their results are wrought out; they do not come to hand already made. Poets may be born, but success is made."

The gentleman to whom Mr. Garfield alludes is well known to many of our readers as one of the most enterprising and successful business and art photographers of our country, and is entitled to all the fame and consideration which have been given him, not only by Mr. Garfield, but by a great many other great men. He has been informed of our desire to publish the statement made concerning him by Mr. Garfield, our excuse for so doing being a desire to encourage young photographers to follow his example. He almost entered a protest against such action. But when assured that our object was to do good, he consented, but not without considerable reluctance. We all know that Mr. Ryder is deserving of all the praise he has obtained, and will be glad to know that he is reaping the reward that is due him for the efforts he has made in behalf of photography. A short time ago Mr. Ryder received a letter from the Hon. B. F. Peixotto, American Consul at Lyons, in France, which will be read with interest by all who know him. The letter is as follows:

"CONSULAT DES ETATS UNIS.
LYONS, FRANCE, October 19, 1881.

"MY DEAR OLD COMRADE: I send you to-day a copy of my translation of Mason's life of our lamented President, General Garfield, which I am sure you will be happy to receive as a memento of an old Clevelander, the more so as you will recognize the portrait which illustrates, as taken from your photograph of the illustrious dead. The dear General sent me the original from which I had this made here at Lyons in October of last year. In the operation it was so injured that I cannot use it any more. Now I hear that you have made for the Queen of England a lovely photograph of my poor, dear friend, and I should feel under a lasting debt of gratitude, if you would kindly send me (I will not ask as large or as grand a one as that) a copy for my consulate rooms. I recall vividly the

many pleasant years I passed in Cleveland, and the agreeable relations we always had, and I am vain enough to believe you have cherished a like pleasant memory. The portrait in my French Life of Garfield is pronounced the best in Europe, if not extant. To me it is the source of ever joyous, however sad reflections, when I look upon the features I loved so well while living, and mourned so deeply dead. Very sincerely yours,

“BEN. FRANKLIN PEIXOTTO.”

Thus, our young men will see the reward which is reaped by one who has always kept himself alive in his profession, has been liberal in giving out the knowledge to others, and who has encouraged every enterprise that seemed useful and valuable to him in maintaining the dignity and the standing of himself and his art. We commend what he has done to the attention of the young photographers all over the country. What more can we say to encourage them to study and improve themselves during their hours of leisure? For we desire sincerely to have them profit by the experience that we have had, and to prevent them from growing up to the time in the future years when, if this advice is not followed, they will be sorry that so much valuable time has been neglected and lost. In closing, we cannot do better than to quote the final remarks of Mr. Garfield's address, as follows:

“One thought more, and I will close. This is almost a sermon; but I cannot help it, for the occasion itself has given rise to the thoughts I am offering you. Let me suggest that, in giving you being, God locked up in your nature certain forces and capabilities. What will you do with them? Look at the mechanism of a clock. Take off the pendulum and ratchet, and the wheels go rattling down, and all its force is expended in a moment; but, properly balanced and regulated, it will go on, letting out its force tick by tick, measuring hours and days, and doing faithfully the service for which it was designed.

“I implore you to cherish and guard and use well the forces that God has given you. You may let them run down in a year, if you will. Take off the strong curb of dis-

cipline and morality, and you will be an old man before your twenties are passed. Preserve these forces. Do not burn them out with brandy, or waste them in idleness and crime. Do not destroy them. Do not use them unworthily. Save and protect them that they may save for you fortune and fame. Honestly resolve to do this, and you will be an honor to yourself and to your country. I thank you, young friends, for your kind attention.”

A MONUMENT TO DAGUERRE.

THE following letter has been sent to the Presidents of the various Photographic Associations and Societies, accompanied by a résumé of the steps thus far taken to raise the necessary means for so commendable an object.

“PARIS, November, 1831.

“MR. PRESIDENT: We have the honor to send you herein enclosed a circular having reference to the monument which we wish to raise to the memory of Daguerre. You will be kind enough to bring it before your honorable Society, and we hope that it will be agreeable for all to participate in our work of gratitude. We beg you, Mr. President, to accept for yourself and your honorable colleagues the assurance of our most distinguished consideration.

“For the Daguerre Committee,

“The President,

“E. LETELLIER.

“P.S.—We send you at the same time some circulars and lists for subscribers.”

As far as we can ascertain from the circulars, the matter is in charge of a committee of the “Société Française des Archives Photographiques, Historiques, et Monumentales,” called the “Comité Daguerre,” who have been fortunate enough to head their list with an appropriation of one thousand francs (\$200) from the authorities of Corneilles-en-Parisis, his birthplace and site of the proposed monument. As they very properly say, “Nicephore Niepce will soon have a monument at Châlon-sur Saône, his native town; Daguerre ought also to have his.” And further, “Niepce died without being able to say, like Daguerre, Eureka! Doubtless it was but little that separated

him from the coveted result, but certain it is that he did not attain to it, while it is no less certain that Daguerre made and presented to the Academy the first finished daguerrotype proofs. From this moment photography claimed an existence, and this was the starting-point of the splendid train of discoveries and improvements with which our art is still enriching herself."

Subscriptions may be sent either to M. E. Letellier, Villa Phœbus, Havre, France, or to M. N. Glaise, Treasurer of the Committee, 55 Boulevard Beaunarchais, Paris. Every one subscribing three francs (60 cents) or more, will receive a portrait and autograph of Daguerre; and the names of subscribers, with amount sent, will be published in the *Revue Photographique illustree*, the official organ of the Society.

REMOVING PRINTS FROM THEIR MOUNTS.

It is by no means an unusual circumstance that, from some reason or other, it becomes necessary to remove a photograph from its mount. Possibly it is mounted on the page of an album, and it may be desired to frame it or transfer it to another; or, on the contrary, it may be framed, and it is desirable to place it in an album; or, again, the style of frame and mount is not in accord with others with which it is to hang, or, what is by no means improbable, the print has faded, and it becomes necessary to replace it with a fresh one, retaining the original mount, which may bear an autograph that it is important to preserve.

Now, the removal of a print from its mount—as, no doubt, many from experience are aware—frequently proves to be by no means such a simple operation as at first sight it may appear, and the attempt often leads to the destruction of a valuable picture, or—what in some cases is an equal misfortune—the original mount is injured to such an extent that it becomes worthless.

If we could always ascertain the mountant employed, much trouble would be saved, as we should then at once know how to proceed. In the present instance we shall assume that we are entirely ignorant of it. The first thing to do, supposing the print to

be framed, is to take it out, and, if it be in a cut-out mount, to remove that. If the print were framed by a photographer, in all probability it would be simply secured to the mount by strips of gum-paper; but, if by a picture-frame maker or a professional mounter, it will, no doubt, be glued to the mount, in which case, unless care be taken in separating it, the picture may be torn at the edges. The best plan is to gently force it away from the mount by passing the blade of a palette-knife round the opening from the inside. After removal, the picture is closely examined to see if any clue can be obtained as to the kind of cement with which it is attached. If it be "rough mounted," probably some of it may have exuded from the edges, and then its color may serve as a guide; for if it be dark in color, it is no doubt either glue or dextrine, and if the former, it may be detected by wetting it with saliva, when its well-known odor will be developed.

India-rubber has been so little employed as a mountant that the probability of that having been used is somewhat remote; yet it may have been. In that case, if the picture have been but recently mounted, it may sometimes be removed by raising one corner with the point of a penknife, and then gently peeling it off; or, if the mounting be of an old date, possibly the India-rubber may have perished, and then its removal is easy enough. Failing this the picture must be saturated with benzole, and this will soften the rubber and permit of an easy removal. If the mount be of plate-paper, the benzole is better applied from the back.

We will now suppose that India-rubber was not the mountant employed; therefore the print should be immersed in clean, cold water, where it may be allowed to soak for an hour or two, trying it from time to time to see if the mountant has softened at all. If so, a longer immersion will, no doubt, allow of its removal. If, on the contrary, after several hours' soaking the cement show no signs of yielding, the print should be put into warm water for a quarter of an hour or so, when, if the mountant be glue or gelatin, the print and mount will be easily separated.

With this treatment most of those materials that are employed for mounting photographs will have yielded, but there are some kinds of starch which will obstinately resist it—even after many hours' soaking in both hot and cold water. When we get an obstinate case such as this, it is better to abandon the idea of removing the print from the mount, but to reverse the order of procedure, and remove the mount from the print. Doubtless, from the prolonged soaking, the mount itself will have shown signs of succumbing, and we, therefore, proceed to separate the sheets of paper of which it is composed (one by one) until we get to the last—that to which the print is attached. It is now removed from the water, placed face downwards on a plate of glass, and flooded with warm water. The paper is now abraded and carefully rubbed off, bit by bit, with the finger, and with care and patience it may be entirely removed without injury to the picture.

Supposing the print has been mounted in an album, the treatment above described cannot be applied. We must, therefore, proceed as follows: First get two plates of tin, or pieces of water-proof paper (such as are employed in copying-books), somewhat larger than the pages, and several sheets of damp, white blotting-paper a little smaller. Now place several sheets of the latter at the back and front of the leaf carrying the print, enclose the whole between the tin plates, and put them under pressure. The tin plates will effectually protect the other leaves of the album from the moisture. After resting for an hour or two (during which time the blotting-paper must be kept damp), if the print cannot be removed the blotting-paper should be ironed with a hot laundry iron. After this treatment the print can, no doubt, be easily removed, and any adherent cement cleaned off with a soft sponge and warm water. The leaf is then pressed between several thicknesses of dry blotting-paper, afterwards sponged both back and front with strong alcohol, and again blotted off. If this treatment be repeated several times, the alcohol will remove the greater portion of the water, and the leaf when dry will not be nearly so much cockled as if it were allowed to dry spontaneously.

It sometimes happens that it is necessary to remove a print which has faded from its mount, and the latter may contain a title or an autograph, which it is impossible to replace. Under these circumstances we proceed in much the same manner as with the album, taking care, however, that the blotting-paper, as well as the water with which it is moistened, is scrupulously clean, as plate-paper is most easily soiled. In an obstinate case, the print being of no value, it may be rubbed off piecemeal, as was recommended for removing the last sheet of paper, when the mount had to be destroyed. After the print has been "coaxed off," the margin of the mount should be thoroughly wetted, and then dried between sheets of blotting-paper, which will keep it flat. In putting prints on mounts that have borne other pictures, care should be taken that they are trimmed a trifle larger than the old ones, so that they overlap the space previously occupied. —*British Journal of Photography.*

MAGIC-LANTERN TRANSPARENCIES.

THERE are two general methods by which photographic lantern transparencies may be prepared—the wet and dry process. Of these, each has its special advantage. For the photographer who can devote several consecutive hours during the day to the production of lantern slides, or who manufactures them on a large scale, the wet collodion process, employed in connection with a copying camera, is unmistakably the more advantageous; but to the amateur, who can only devote himself to this class of work during an hour or two in the evening after the termination of his ordinary daily avocations, the dry process offers facilities of an exceptional nature, and possesses advantages considerably transcending those of the wet.

It is, of all things, indispensable that the high lights of the transparency be represented by pure glass, absolutely clean in the sense of its being free from any fog or deposit to even the slightest extent. It is also necessary that it be free from everything of the nature of heaviness or smudginess in the details. A transparency for the stereoscope is much better for having its high

lights slightly veiled, as this prevents what is frequently termed a "snowy appearance," especially on the trees and vegetation; but with a well-made lantern transparency such an impression is not conveyed to the spectators, even when the high lights are quite clear.

The operator is assumed to have a quiet hour or two at his disposal some evening, and to set as his task the making of a dozen transparencies.

The collodion must be one that works clean, without patchiness or undue intensity. This kind can be obtained without difficulty, hence time need not be occupied in giving any formulas for its preparation. The silver bath is one of thirty to thirty-five grains in strength, and need not be other than employed in ordinary negative operations.

The plates having been cleaned must be albumenized, because one of the operations to be subsequently described has a tendency to contract the film, which would facilitate its slipping from off the glass were this not counteracted by the substratum of albumen. Now provide a large flat dish, such an one as that used for silvering paper, and into this pour the negative solution of nitrate of silver. A second dish, which may conveniently be of the same dimensions as the other, should also be provided; it is to contain acidulated water.

All things being ready, and the plates standing in a rack in front of the operator, one of them is collodionized and immersed, face uppermost, in the flat silver bath, its position being at one corner. Without corking the collodion bottle, a second, third, fourth, and so on to the last, are successively collodionized and immersed in the silver solution. All this is done by the light of a lamp shielded by yellow glass. By means of a silver-wire hook, or a strip of ivory or vulcanite having a pointed end, the plates are removed from the bath in the same order in which they were inserted, and are transferred to the water bath. The water, however, must have been largely acidulated with acetic acid; and here some explanation must be necessary.

It has been said that the ordinary negative nitrate bath may be used. This is

the case. But an "ordinary" bath does not produce quite such clear transparencies as one containing a large proportion of acetic acid; it has, however, been found in course of experiments by the writer of these remarks, that, after sensitizing the plate in *any* bath, even though it were one producing fogging pictures, if such a plate were transferred to an acid bath for a brief period, no fogging would result. This led to the adoption of the expedient of pouring over the surface of the sensitized plate, previous to washing, a very strongly acidulated silver bath solution, which answered the purpose in an admirable manner. The further modification now suggested, that of washing the plate in acidulated water, is found to answer quite as well as the more cumbrous method formerly recommended. It possesses, also, the advantage of not necessitating any tampering with the silver bath, which, if good for negatives previous to the evening's work now laid out, will be equally so after such work has been effected. Cleanness and purity of the tones must be obtained at any cost; the cost here indicated is the lowest to which it is possible to reduce it, consisting as it does of a modicum of acetic acid per dozen of pictures.

From the acidulated water the plates are removed, one by one rinsed with plain water, and coated with an infusion made by digesting a dessertspoonful of ground coffee in a small cupful of boiling water, which must be carefully strained after standing for ten minutes. This simple preservative yields a cleaner picture, and a more pleasing tone, than most of all those that have yet been introduced.

When the plates have all been coated with this preservative, they are then dried by heat, although spontaneous drying answers quite well. Not until they are quite dry is the next operation proceeded with, viz., that of exposing. It is convenient that the dozen of negatives (or a fewer number, if duplicates are wanted) be racked at the right hand side of the operator, the plates being racked at his left side, both of these being illuminated by a kerosene lamp protected with a yellow glass all round, except in front. This undoubtedly forms the best and most convenient method of illumina-

tion for the operating table; for, by the yellow portion of the light, the negatives may be selected and superposed each upon its sensitive plate; while, by the clear or white portion of the light, the exposure is to be made.

Translucent yellow paper, or, by preference, a transparent varnish colored with curcume and dragon's blood, will indicate the means by which any man possessing ordinary intelligence may secure a local coloration of light.

By the process now being described an exposure of twenty seconds—or, in case of an exceptionally dense negative, of twenty-five to thirty seconds—will insure a fully-exposed, first-class transparency.

The whole of the plates having been exposed, they must be developed in batches of four at a time. This is how it is done:

A solution is made, consisting of three grains of pyrogallic acid and two grains of citric acid per ounce of water, and to about an ounce (preferably less than more) of such solution a few drops of nitrate of silver solution are added just at the time of using. The first of the four plates to be developed is dipped in water, or flowed over with it, so as to wet the surface. This is followed by an application of the developer containing the silver, and the plate is laid flat, to allow it to act. The remainder of the four plates are treated in like manner; and by the time the last one has been attended to the image will be pretty well out on the first, which must then be taken in hand specially, and, if need be required, be intensified by the addition of one or two drops of nitrate of silver to the now nearly exhausted developer. When found to be right, throw the plate into a hypo bath of moderate strength, and then direct attention in rotation to the others, which must be treated in precisely the same way.

The second and third group of the series of the dozen must be developed and fixed in the manner adopted for the first; and the operator will be rewarded by finding himself possessed of twelve transparencies having a clear and pure tone, totally devoid of heaviness anywhere, the whites being bare glass, the blacks being of a fine, warm tone—neither too brown nor too "inky" in hue.

No toning will be found requisite if these directions have been followed.

ON WASHING GELATIN EMULSION.

BY WILLIAM ENGLAND.

THE method I am about to describe is so different from that usually recommended and practised by many makers of emulsion, that I should be very diffident about bringing it forward; but it has answered so perfectly in my hands, and I so much prefer it to all others, that I shall make no apology for trespassing on the patience of your readers.

I shall presume that the emulsion has been made by any of the usual methods, and after boiling and adding the necessary quantity of gelatin, allowed to cool to (say) 120°. I pour it in a flat-bottom glass dish; this may be constructed with a sheet of glass, with a wooden frame about an inch deep. This dish, when used, may be put on the levelling-slab used for setting the plates. In this way the emulsion will flow in equal thickness over the bottom, and, when the weather is warm, I use a zinc box with a cover, sufficiently large to allow the dish to be placed in it, resting on pieces of metal at the sides, and allowing a space under of three or four inches, into which I place a few lumps of ice, which makes the gelatin set very rapidly. After it is quite firm I draw a silver dessert-fork across it, cutting the emulsion into strips, the width, of course, of the prongs of the fork.

Now, with a piece of glass about an inch and a half wide, take off the emulsion and drop it into a gallon pickle-jar. The latter must be fitted up in the following way: Procure a large cork bung which will fit the mouth of jar. Pull over, or rather under, the bung a piece of chamois leather; this will make it fit tight, and keep bits of cork from getting in the emulsion. Now make two holes, and put in each a piece of glass tubing, about a quarter-inch bore, one piece to reach to the bottom of the jar and the other about an inch through the cork. Now attach to each tube a piece of red rubber tubing (this is free from sulphur).

Now we will suppose that the emulsion has

been placed in this jar (of course, in the dark-room), and the stopper fixed in. It may now be carried into the light, and one of the rubber tubes attached to the water-tap. This tap must have a union attached, which should be plugged with cotton-wool for the water to filter through. This is very important, as any one may see if they examine the cotton-wool after each time of using, for it will probably be covered with dirt and iron-rust. *Since adopting this precaution, I have never had a single batch of emulsion which has given me spots.*

The washing may be continued for about twelve hours, allowing a very small stream to run through, after which drain off the water, and turn out the contents of the bottle on a hair-sieve to thoroughly drain. This method of washing the gelatin emulsion may seem very tedious by the long account necessary to describe; but I can assure those who may feel disposed to try it that it is, after they have the necessary utensils, which are very easy to make or procure, extremely simple.—*Photographic News.*

CONSIDERATIONS ON THE PRESENT STATUS OF PHOTOGRAPHY.

MUCH has been done in the technical and mechanical departments of our art. But this is by no means all—nay, it is but the beginning. We stand in the number of those who believe that in many respects, too numerous to mention here, it is fairly entitled to rank as an art; or let us put it even more strongly, and say that the art basis is that on which all high-class photography must rest. For, as it has been repeatedly said, the camera and chemicals should be regarded as nothing more than the tools by which an idea in the operator's mind is elaborated and put into such a form that it may be manifested to others. It is quite true, indeed, that the lens reproduces whatever is within its field, and that the licenses which painters allow themselves in suppressing those objects which disturb a good composition, or in introducing others which aid, are often impossible with us. In fact, in far too many cases the photographer is so trammelled by his want of power to mould certain refractory parts of

his subject into proper relation with the whole, that he abandons any high ideal that he may have set before himself, and sinks back into easy-going indifference towards the blots upon the æsthetic part of his work, and revenges himself by making his pictures more technically perfect than ever. But, on the other hand, how much, how very much, can be effected by patient, thoughtful, and sympathetic selection of the point of view, by which unsightly objects may either be suppressed entirely, or at least altered in regard to the effect produced by them upon the unity of the composition, and how much by careful choice of the quality and quantity of light, of the proper instruments and chemicals, of the proper atmospheric conditions, and by a thorough knowledge of photographic chemistry, so that the operator may feel, the moment he sees his subject, what particular combinations or modifications of these chemicals will give him the best results.

But some one will say, "what has sympathy to do with a procedure so mechanical as all this?" And we reply that it is our firm conviction that no one who has not the love of external nature as she manifests herself to us in the glories of the sky, sea, rocky peak, stately forest, august mountain form, and delicacy and variety of the tint in distant landscape, melting into the "blue of the faint plain," and who has not further refined and enlarged this love by diligent study of the rules of composition, will ever know or feel what he might have been able to express by the aid of an instrument so powerful as the photographic camera. Viewing the matter from this point, then, we boldly make the claim that photography rises above the rank of a mere mechanical process, and takes its place among those arts where ideas of truth, beauty, balance of line and mass, in a word, all those rules of æsthetic science which are especially applicable to the proper composition of a picture, play by far the more important part.

And this is not true of photographic landscapes alone, but portraiture also has lately made an immense advance in this direction. Compare the best results of the early days of the daguerrotype with those of the last half

dozen years, and what improvement we find! Not so much in the chemical technicalities of the picture, as in its *general conception*, and in the studious and often highly ingenious way in which this mental conception is practically carried out by scrupulous attention to the proper pose, light, costume, and accessories—even to the most minute details. In fact, this subject of posing and lighting the sitter, has been as elaborately studied by many of our best operators as it has been by painters, and the journals devoted to our art teem with interesting and instructive articles upon this all-important subject. European galleries of paintings and etchings have been ransacked for models, after which sitters may be posed and lighted either singly or in group; ponderous volumes on composition and art æsthetics, which a few years since were read only by the connoisseur, the dilettante, or, perhaps, the professional painter, are now studied by the photographer also, and results given to us for which we may well praise him. So great, indeed, is the difference between the work of the mere journeyman photographer and that of the man who considered his work finished only when he has exhausted all that his æsthetic studies have taught him to be of value in a picture, that we, whose eyes have become trained to close and critical examination of photographic pictures, recognize a strong individuality in the work of different operators, and in looking over a collection, we will often be able to say who has made such and such a view or portrait, so plainly does the work bear the impress of the man that made it.

The art aspects of photography are but ill understood by the public in general, and, indeed, it could hardly be otherwise when we consider what large numbers of indifferent and even bad pictures are exposed for sale—bad, not so much in point of technical manipulation as in proper selection of subject. The reason is easily found, and is simply this, that it “pays better,” in many instances, to make badly-composed pictures than good ones. Let us give an example.

A professional photographer goes to a much-frequented summer resort in the mountains, and makes a number of views.

Which among these will “sell the best”? Evidently, those which the visitors at the place will recognize at once; such as the railroad-station, where they leave the train and take stage for the “Mountain House;” the hotel itself, with the porches crowded with people, all staring into the instrument and shielding their eyes from the sun in most ungainly attitudes; then the “lions” of the place—the “Mermaid’s Cascade,” the “Sylvan Dell,” the “Mossy Brook,” the “Lover’s Retreat,” the “Castle Rocks,” etc. Now, of course, it is quite possible that among these natural attractions of the neighborhood, some may be found that can be made to yield a well-composed picture from the very point where the public stands when looking at it, but in very many cases a close examination of the locality will show other points of view that would give a much better result pictorially. Still, what is to be done? The photographer knows that if he chooses any other point of view than the familiar one, the picture will not be recognized so quickly, and consequently be unsalable. Mr. G. W. Wilson, of Aberdeen, Scotland, who is well known as one of the best among landscape photographers, puts this matter as follows: “. . . I have to study the popular taste as well as my own, and must try not only to get a pleasing picture of a place, but one also that can be recognized by the public; and the public is not much given to scrambling to out-of-the-way places where a superb view can be had of a celebrated spot, if it can see it *tolerably* well from the Queen’s Highway.”

Thus, it happens far too often that the results of landscape photography degenerate into mere souvenirs of places, and have but a slender claim to any artistic merit, so that the criticisms of a painter would be almost always unfavorable to them—no perfection of technique, in his eyes, compensating for the absence of those higher qualities in the picture to which he most properly gives the front rank.

Still, in spite of all drawbacks, it is wonderful to think of what has been accomplished by photography, not only from an art point of view, but also as a means for business advertisement and technologically. Here it is of immense service; and so plainly

is this recognized at the present day, that many institutions give regular courses of photographic instruction to their pupils. No exploring expedition can now be considered a well-appointed one without a full photographic outfit, and inducements are offered to naval officers to take photographic instruments with them on their cruises.

The impetus which photography has given to many branches of trade, is also only to be imagined by those who have some knowledge of the variety of the articles used in its different manipulations and processes. It may fairly be said to have recreated certain departments of the glass, chemical, and paper manufacturing businesses. The most profound mathematical knowledge has been needed to perfect the splendid lenses which are made in such large numbers and sold at such surprisingly low prices to-day, while again, the best cabinet-makers are taxed to produce those ingenious mechanical contrivances by which any one of a series of the most sensitive plates may be shifted from the dark carrying box into the camera, exposed, and returned to its former position, in broad daylight, without the slightest risk of any other light gaining access to it but that which forms the image in the camera. The manufacture of the peculiar kind of soluble cotton used in collodion, requires such extreme nicety and accuracy, that only a few among those who manufacture the chemicals used in the art even profess to understand the matter at all, and it is only another proof of the advanced state of chemical knowledge at the present day, that such large quantities of a substance so difficult to prepare, can be turned out of the factories almost constant in its uniformity; but even this knowledge counts for little or nothing, if we attempt to fathom the secrets of the curious reactions that take place in emulsions—so little do we know of their real nature. So much zealous labor and research, however, are being expended in this direction that we scarcely dare to think of the future possibilities of our art—it seems as if almost everything was coming within our reach. It is now perfectly practicable to photograph the interior of a cave or mine thousands of feet below the earth's surface, to take excellent portraits at night, to catch

the fountain-like spray from a submarine torpedo explosion, and to obtain a regular series of views of the different positions which the legs of a race-horse assume when he is at his highest speed. These and many other wonderful things we can do, but it is amusing to see what distorted and wrong ideas on the subject of photography many persons possess. We have frequently been told by those who own large collections of foreign views, that they have some of Signor ——'s rare and wonderful photographs of the Grand Canal at Venice taken by moonlight; and when the pictures have been triumphantly brought forth from their portfolios and handed to us for examination and admiration, we confess that we have not always had the heart to spoil the owner's pleasure by telling him that the moon and its reflections were put in with a paint-brush, and the whole print made a little darker than usual so as to produce the effect of a night scene; for, to the best of our belief, no one has yet succeeded in making a landscape by the light of the moon, though pictures of the moon's disk have been admirably made by Rutherford and others. False ideas are prevalent, too, concerning the absolute accuracy of photographic representations, under all possible conditions, many people supposing that because the operation of taking a photograph is mechanical, that therefore it must necessarily be perfectly accurate when made; but the facts of the case really are, that a view or landscape, and most particularly a building, may be so altered in a photograph as to be unrecognizable if improper instruments be used in making the negative, and a wrong point of view selected.* Any one who has tried to copy a large map or drawing in sections by means of the camera knows how difficult it is to keep the finer lines of the drawing in such perfect registration that when the prints from the different negatives come to be mounted in close juxtaposition, there shall be no discrepancy; and the more delicate requirements of astronomical photography render the alteration in the size of the image caused by the shrinking of the film when dried an almost

* And that this is notoriously true in regard to portraits, scarcely needs mention.

insuperable obstacle to the employment of any process but the daguerrotype in its original form, which, of course, is free from this objection and many others. Indeed, when we seek simply for elaborate fineness of detail and absolute sharpness, the daguerrotype stands as unrivalled to-day as it did on the day of its discovery forty years ago. And this leads us to speak of still another false idea that some have when they think that many changes and improvements have been made in the standard process, by which a wet collodion negative is taken and a print printed, the truth being that the operations stand identically the same in theory, and almost the same even in the smaller details of practice as they did twenty-five years ago.

Ordinary photography, too, is by no means the difficult thing to learn that many imagine it to be; nor is it at all necessary that the beginner should coop himself up day after day in a dark foul-smelling, dirty room, and cover his hands and his linen with inky stains, in order to master its secrets. It is now so easy to bring home a collection of views from a summer trip, or to make interesting studies of street views with men in motion, animals, clouds, and breaking waves, besides the endless variety which landscape and architectural photography offer, that it seems strange that there should still be so few amateur photographers. When we consider that an outfit for making pictures of the "carte de visite" size can easily be packed in a small portmanteau, and that most of the chemicals required are to be found at any drug or chemical store in the civilized world; that the negative when made may be transferred to paper, and so brought home, leaving the original glass clean for another exposure, and so reducing the fragile material to a minimum, and last, but not least, that a good outfit and materials can be bought for a very moderate sum, we feel ourselves justified in saying that the amateur photographer of the present day finds himself engaged not only in a most delightful recreation and pleasure-giving pursuit, but in one which can be made to reward him *intellectually, just in proportion to the earnestness with which he may choose to devote him-*

self to it; and we feel that we cannot bring these remarks to a close without saying that having passed many of the pleasantest hours of our life in the study and practice of the art of photography, we feel ourselves under a debt of gratitude to it and to those who have labored to discover and perfect it—a debt, indeed, which we shall never be able fully to repay, and one which we can only expect to lighten by telling others of the beauties and wonders it unfolds to us, and hoping that some, through it, may be led to the better appreciation of the picturesque and the beautiful wherever they are to be found, even as we ourselves have been.

REMOVAL.

A MODEL STOCK HOUSE.

OUR Chicago correspondent writes us as follows regarding the removal of Mr. Hiram J. Thompson: His business has grown to such an extent that his old building was entirely too small. This and other faults of the building, and the location, put him on the lookout for a larger and better building, which he has fortunately secured. His new location is No. 84 Wabash Avenue, near Washington, the *centre* of the wholesale district of Chicago, and his building is one of the best for the purpose that we ever saw; it has seven immense floors. The first is filled with heavy goods, glass, full cases of goods, etc. The second is arranged as salesroom in the front half, the rear half is separated by a glass partition and used as a packing and shipping room. The third floor is devoted to photographic materials, card stock, etc., with shelving clear up to the ceiling, with galleries for the use of the order clerks. In the front, twenty-three feet of this floor is the office, arranged to accommodate a force of ten men. The fourth floor is loaded with an endless variety of mouldings. The fifth with mirrors, etc. The sixth and seventh with the largest line of picture frames we ever saw. The building is furnished with a large, improved, water-power elevator. The light is had from both ends of the building, which fronts on Dearborn Park in the rear, and Wabash Avenue on the front. Mr. Thompson says

that, with his increased facilities, he will easily increase his sales, which last year amounted to a quarter of a million of dollars.

SOCIETY GOSSIP.

CHICAGO PHOTOGRAPHIC ASSOCIATION.—The annual meeting for election of officers was held at Douglass, Thompson & Co.'s Warehouse, 229 & 231 State Street, on Wednesday evening, January 4th, 1882, Alfred Hall, President, in the chair. Called to order at 8 o'clock. Reading of minutes of last meeting dispensed with. M. B. Lonergan, C. K. Beebe, E. L. Tenney, and W. S. Adams elected members.

The Chair presented a communication from the "Soiété Française des Archives Photographiques, Historiques, et Monumentales (Comité Daguerre)," inviting the Association to contribute towards the erection of the proposed monument to Daguerre, at Cormeilles-en-Parisis, his native town. On motion, the matter was referred to a committee of one, to report at next meeting, and the Chair appointed Mr. Gentilé as that Committee.

The election of officers for the ensuing year was next proceeded with; Messrs. Smith and Greene being appointed tellers. On the first ballot for President, G. A. Douglass was elected by ten votes out of a total of fifteen cast.

On motion, the election of Mr. Douglass was made unanimous.

On the third ballot for first Vice-President, P. B. Greene was elected by ten votes out of fourteen cast.

G. W. Collins was elected second Vice-President by nine votes out of fifteen votes.

F. H. Davies was re-elected Secretary on the first ballot by fifteen out of sixteen votes.

It was then moved, seconded, and carried *nem. con.*, that the Chair cast a vote for Treasurer, which being done, that office fell to the Secretary, as at last election.

A ballot for Executive Committee being next in order, Mr. Greene moved that each member write three names on his ballot; that the three names receiving the highest number of votes be considered elected, and that the highest of these three be the chairman. Carried.

On a ballot being taken in accordance with the above resolution, it was found that Messrs. Joshua Smith, J. E. Beebe, and Alfred Hall were elected; Mr. Smith being chairman, with thirteen votes out of fifteen cast.

This terminated the "political business" of the evening, and there being no paper to be read, or special topic for discussion, Mr. Douglass read the following editorial from the London *Photographic News*, of December 16th, 1881, on "The Effects of Change of Temperature on Photographic Lenses:"

"The above subject is one which was discussed at considerable length at a recent 'Thursday evening' meeting. It was stated by one of those present that he had, in more cases than one, observed a distinct change in the defining power of a lens on the temperature changing, and this when special precaution was taken to prevent the deposit of moisture on the glasses. Several other gentlemen corroborated this statement, and a very interesting discussion took place as to the probable cause of the phenomenon.

"It was contended by some that the change was brought about by the alteration of the density of the air between the lenses, and not by a change in the glass. The general opinion, however, seems to be that the change was probably in the latter. It was pointed out, as a likely explanation, that the lenses might have been screwed or burnished into their mounts when the weather was warm, and that the contraction of the brass on cooling might distort the lens. This certainly it would do. We are accustomed to look upon glass as a perfectly rigid substance; but it is very far from that. It is, in truth, one of the most perfectly elastic of substances, and a very slight pressure, especially on the thin edge of a lens of large diameter, might distort it sufficiently to perceptibly alter its defining power. We know, however, that our best lens-makers are very careful not to screw up their lenses so tightly that any such distortion of the glass is likely to occur.

"It was given as another possible explanation, that the mere expansion of the glass might produce the effect spoken of. This seems unlikely, as the expansion of glass in

changing its temperature is very small; and, moreover, the expansion would be proportionate throughout the lens.

"We would throw out the following as a likely solution of the difficulty:

"The amount of expansion produced by a given increase of temperature varies somewhat in different kinds of glass, and we believe that this variation in the case of two lenses cemented together, as in the front combination of a portrait lens, might bring about such an amount of distortion as to appreciably affect the working of the instrument. The change of form brought about by the differential expansion of two substances is one which may be made very apparent in the case of thin sheets of different metals, the expansion of most metals, when changing temperature, being much greater than that of glass. If, for example, two thin strips, one of brass, the other of platinum, be soldered together, and be straight at a certain temperature, they will assume, on becoming either warmer or colder, a curved form, the convexity being on the brass side in case of increase of temperature. A very sensitive thermometer may be thus constructed. The principle is, as is well known, taken advantage of for compensating clocks and watches, to prevent them from going slow in warm, or fast in cold, weather.

"We have no doubt that a similar action to that of the two strips of metal soldered together will take place in the case of two lenses, one of flint, the other of crown-glass, when they are cemented together, and when the temperature changes. The alteration in form will undoubtedly be very small. The total expansion of glass is trifling compared to that of metal, and, moreover, the proportionate difference of expansion is very much less in the case of different kinds of glass than in the case of different metals; besides which, the form of a lens composed of two glasses cemented together is one much less liable to alter than that of a narrow strip, which we took as an example in the case of metals. Nevertheless, it is certain that a slight distortion of the shape of the lens may be due to the cause we have mentioned. We believe, however, that a greater change in the working of the com-

bination is likely to take place on account of the state of strain into which the glass will be thrown, than on account of actual change in the form or size of the glass.

"It is well known that the effect of pressure on glass or any other transparent medium is to change, in a remarkable degree, its refracting properties, and the state of strain into which a combination of glass cemented together would be brought, on a change of temperature, would be equivalent to considerable, possibly great, pressure. It must be remembered that in the case of a large aperture lens, a very small change in form or density will produce a marked effect.

"It may be asked, why, if this be the explanation of the phenomenon, does it seem to make its appearance only in the case of portrait lenses, and not in the case of rectilinear or of the modern form of single lenses, which have each two cemented joints?

"The explanation is to be found in the fact that the portrait lens is the only one in which a slight change of form or density will make any marked effect. The change, whether it were brought about by distortion of the glass itself, as just explained, or by pressure of the brass mount, would be equivalent to the introduction of a certain amount of spherical aberration, or rather, as no lens is entirely without spherical aberration, to the increase of that which exists. The portrait lens is the only one in which it is necessary to reduce spherical aberration by the form of the lens itself. In the single lens, for example, a very large amount of spherical aberration exists when it is used full aperture, so much that any additional which might arise from slight distortion of the lens would be quite unobservable, and in this case the defect is got rid of by considerably reducing the aperture."

Mr. Douglass stated that his object in calling attention to the subject was to ascertain if any member had ever observed any change of the kind mentioned in the above extract, or, indeed, if any of them had ever thought of the matter at all. So far as he was concerned, it was a new idea, and seemed a little far-fetched.

No one had observed any effect of the kind, but several members seemed inclined to think the result more likely to be caused by moisture

on the inside of the lens or suspended in the air enclosed between them, possibly in so fine a state of division as to escape ocular detection. The effect of this would, of course, be to produce a slight fogging, due to dispersion of light rays, which would appear much the same as a reduction of definition.

Mr. Smith had at one time been troubled a good deal by a very thin coating of grease that had by some carelessness got on to a lens; he could not get clean shadows, but thought the lens worked quicker. The Chair could not understand this latter part of Mr. Smith's remarks, inasmuch as he failed to see how any coating, less transparent than the glass itself, could permit more light to pass through than would be the case with the lens entirely clean. Mr. Smith did not seem able to give any rational explanation, but maintained his position that such was the fact. (The probable explanation of the apparent paradox is, that Mr. S. judged his exposure from the shadows, which of course got more than their fair share of light, rather than by the high lights, which received less than their proper proportion.)

On motion, adjourned to first Wednesday in February.

F. H. DAVIES, *Secretary*,
No. 78 Michigan Avenue.

PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.—Minutes of the stated meeting held January 4th, 1882, the President, Mr. Joseph W. Bates, in the chair.

The minutes of last meeting were read and approved.

The Secretary called attention to some samples of photographic gelatin sent to the Society, for trial, by Mr. Charles W. Heinrichs, of Germany. On motion, these samples were given to Messrs. Carbutt and Hewitt, with instructions to test the same and report at a future meeting.

A neat work, entitled *The Art and Practice of Silver Printing*, edited by Messrs. H. P. Robinson and Capt. Abney, F.R.S., and published by the Scovill Manufacturing Company, was presented to the Society by Messrs. Wilson, Hood & Co.

Mr. Fox, chairman of the Committee on Lantern Exhibitions, reported that they

proposed to give an exhibition in a suitable public hall later in the season, and suggested that the expense be borne by subscription. The slides shown to be exclusively the work of the members; and further, inasmuch as many of the members had fine negatives, with no facilities for making slides therefrom, the committee would prepare from these negatives such slides as they deemed best.

The report was, on motion, accepted, and the committee directed to complete their arrangements tending to a successful entertainment.

Mr. Carbutt exhibited a new $6\frac{1}{2} \times 8\frac{1}{2}$ camera-box, by the Scovill Manufacturing Company, which, aside from the superior workmanship and neat design, contained a very valuable feature in the "extension piece" to the bed, which could be attached or removed at pleasure. The bellows were constructed to suit this, and would, when fully extended, allow the use of a lens having a focal length of twenty-one inches. A new form of "single holder," for dry-plates, fitted with a number of "kits" for holding a variety of smaller plates, was also shown.

Mr. Browne exhibited some excellent "blue prints," also one of Walker's pocket cameras, which was examined by the members with much interest. This instrument evinced great ingenuity on the part of its designer. The chief drawback being the extreme smallness of the plate used ($2\frac{3}{4} \times 3\frac{1}{4}$). The very moderate price at which it was placed should give it a ready sale.

On motion, adjourned.

C. R. PANCOAST,
Secretary.

[*Correction*.—The Secretary also sends us the following correction of Mr. Carbutt's formula for developer and clearing solution, which appeared in the minutes of the December meeting:

Iron Solution.

Protosulphate of Iron, . 800 grains.
Sulphuric Acid, C.P., . 8 drops.

Water to make eight ounces of solution.

Cyanide Clearing Solution.

Cyanide of Potassium (pure), . 60 grs.
Water, 6 ozs.

Saturate one-half ounce of this with

iodine, to which add three-quarters of an ounce of the plain cyanide solution and enough water to make eight ounces.]

ASSOCIATION OF OPERATIVE PHOTOGRAPHERS OF NEW YORK.—A stated meeting was held December 7th, 1881, President Coonley in the chair.

Mr. Atwood read a paper on the "Fading of Photographs," to which he added, "Fading is caused principally by careless toning and improper fixing."

"To assist in more thoroughly understanding the proper sense of the fading of photographs, I will add to it the *causes* of fading. It is not my intention to go into the poetic description of the causes, but hope you will excuse me if I depart slightly in explaining myself, and state that there are only two particular causes of the fading of photographs. In photography we have a positive illustration of havoc in our publications, and the photographer would feel a great pleasure in delivering to his patrons a work that he knew was indelible, indestructible, permanent, and lasting. Now, it depends upon the employé to gratify that wish; but with what mortification does he look upon an obliterated print of his production, and he seeks aid, which I claim he can only find in daily observation and experience. In this paper, perhaps, it may appear as though I gave the preventive rather than the cause of destruction.

"In the first place, the most suitable base for the picture is paper, one of the most destructible fabrics known; and can a discolored print, arising from natural decay of the paper, be recognized as faded? I understand the subject differently. Our object is to grasp the object itself, and that is the silver print, the photograph, independent entirely of the base, mount, or mountant. The base may be the vehicle to retain the devouring enemy, and I of course admit.

"I would mention here one corrosive power, hyposulphite of soda; but its use and action are so thoroughly understood, I would only insult your intelligence in describing them. There are so many reasons given for this fault, I am compelled to give some proof for examination to more thoroughly illustrate my ideas; and I will

mention at this point that if the photograph is properly constructed, many of these reasons fade into nothingness quicker than our subject. The light and atmosphere are charged with being the destroying power. Perhaps they are; but the pictures I show (and I hope I may be pardoned if I offer the results of my own work) are subjects for study. Number 1, on plain paper, was mounted with, and varnished afterwards with, gum-arabic. That was discarded years ago as the prime evil as a mountant here, Mr. President. Nineteen years have wholly upset the theory. Number 2, made on albumen paper, eighteen years ago and never mounted, still mystifies us further by comparison with Number 3, that was printed about the same time, in that it is still more brilliant, mounted on cardboard that brought forth the condemnation of the profession. We speak so, for it is supposed we have specially prepared mounts, wherein hyposulphite of soda is no longer used as a bleaching power in their construction. Number 4, which has entered on 'the sere and yellow leaf,' evidently tells the tale—none, or very little, *gold*. This specimen was produced when we all thought that experience, research, and invention had reached perfection in the 'Art Photographique.' An æsthetic taste developed itself some few years ago for warm or sepia tones, not at the expense of time, labor, or silver, but the most lasting of anything—*chloride of gold*. Numbers 1, 2, and 3, made on a body of silver—strong in nature, as was used at that time, averaging eighty grains to the ounce, and toned in a solution containing fifteen grains of chloride of gold for not more than ten sheets of prints—confirms, in my opinion, that herein lies the cause for the fading of photographs. With a toning bath prepared with either carbonates, tungstates, or borates, properly digested with the noble metal—so as not to hasten the action—on a well-covered base of silver, where it can act both on the back and surface, time being allowed for such, it is so plated, as it were, that the hypobath, time, or the atmosphere can have little or no destroying effect. We still offer as proof the daguerrotypes, those gilded being still perfect. So, Mr. President and

fellow-workmen, I advise toning of photographs *well*, and you prevent the cause of fading of photographs. The deleterious nature of hyposulphite of soda is so well known, that all are aware that thorough washing is necessary to obviate one cause."

Mr. Ehrmann said that fading was mainly owing to the changeable nature of the fixing agent, which changed into the trithionate and tetrathionate of soda.

The Chairman had had much experience in printing, and found that pictures toned up to a certain point would hold their own, but beyond this point the further toning only conduced to fading. Differently toned prints showed decidedly different keeping qualities, but all prints could not be toned precisely alike. Weak, flimsy negatives produced entirely different prints from strong and powerful ones; and he was inclined to believe that one reason why prints that had been made before the introduction of albumenized paper showed better keeping properties, was owing to their having been produced from hard, cast-iron negatives, which required a long exposure to the sun, with a consequent reduction of silver that was more thorough and perfect. If two prints were taken, and one was toned to a sepia and the other to a blue-black, the treatment being otherwise alike in both cases, the former would remain good, while the latter might fade.

Mr. T. W. Powers thought that the fading of prints was to be looked for in the different qualities of hyposulphite of soda, and the combinations it entered into during the process.

Mr. Atwood considered that the blue-black tones had always stood well, but all prints could not be toned equally. Some also toned very quickly, others requiring long immersion in the bath. A print produced by a long exposure would stand better than one quickly printed from a thin negative, owing to the greater amount of the silver that was converted into the subchloride, or suboxide, or something else.

Mr. Ehrmann believed that the reduction of silver under the influence of light resulted in metallic silver. The toning or gilding was the result of a galvanic action, thus

covering the metallic stratum with a pellicle of gold. A suboxide or subchloride could not receive gold upon its surface.

Mr. McGeorge would like if Mr. Taylor would inform him what subchloride of silver was.

Mr. J. T. TAYLOR.—It is a combination of silver and chlorine, in which there is one equivalent of chlorine less than in chloride of silver. The chlorine is liberated by light, the result being the darkened subchloride. If freshly-prepared chloride of silver were placed in a glass tube, which was then hermetically sealed, and this were exposed to light, it would darken, but after remaining in the dark for a few hours, it would be found to have become white again from the reabsorption of the chlorine, which was unable to escape after liberation from the chloride of silver.

Mr. Ehrmann said that the experiment just narrated did not prove that the blackened substance was not metallic silver, rather than subchloride.

Mr. McGeorge thought that as subchloride was a chloride with which proportionally more silver was associated, the reason why prints faded might be the imperfect reduction of the chloride to metallic silver, the partially undecomposed chloride rendering the prepared surface more apt to form other combinations.

Mr. Hallenbeck was not perfectly convinced as to what was the change produced by the light, whether a suboxide or subchloride is formed.

Mr. Atwood thought the image was composed of suboxide, which is almost akin to metallic silver.

Mr. Roche considered it was important to inquire as to the quantity of silver that was left in the print after all the operations had been performed.

Mr. Atwood said there was silver present, but it was covered by the gold.

Mr. Taylor thought they were wandering away somewhat from the subject, which was not the composition of the photographic image, but the causes of fading. He enumerated several of these causes which led to the formation of sulphide of silver, among these being the decomposition of the hyposulphide of soda and deleterious gases in

the atmosphere, especially sulphuretted hydrogen. To obviate these, some varnished the prints with collodion or treated them with encaustic paste. But even a pure atmosphere acted upon silver photographs, inducing oxidation, an effect greatly quickened by acid fumes in the atmosphere. Fading was greatly promoted by the use of an improper paste for mounting, and he spoke of the nature of several of these pastes. There was left in the whites of the finished picture an organic salt of silver, which might be termed albumenate of silver, and which was not removable by hyposulphite of soda unless there was ammonia present with it; and even a yellowness was produced eventually in the whites of many photographs by the discoloration of the paper itself, apart from the influence produced on it by any of the photographic chemicals.

Mr. Hargrave said that a surface or lightly printed negative could, owing to short exposure, never be so permanent as one from a strong and vigorous negative. He could never find the entire causes of print fading, but was convinced that strong negatives gave more reliable prints than weak ones. Comparing the toning process with the gilding of the daguerrotype, he thought it conclusive that a well-reduced silver surface was more apt to receive the gilding or toning covering in a state of greater perfection, and insuring better and more lasting results, than when there was only a small basis on which to have the gold deposited.

After other remarks by various speakers, the subject was then dropped, and that of "Retouching" introduced for discussion, of which we shall here present but a brief outline.

The Chairman said it was quite wrong to retouch to the extent now practised by many, by which the face was made to look as smooth as a billiard-ball. Retouchers who removed every wrinkle and facial mark took away from nature and destroyed the real likeness.

Mr. Schaidner knew that there were a number of good retouchers in the city who could soften wrinkles without destroying the likeness. Photographers had to submit to the whims of those who employed them.

Mr. Acker said that the camera exag-

gerated facial marks, and it was necessary to have these softened in order to produce an accurate likeness.

Mr. Hargrave thought the difficulty with retouchers was that they over- or underdid their work. A retoucher should understand operating and the effect of chemicals, but it was not his duty to make up for the shortcomings of the operator.

The Chairman said that careless operators too often trusted to the retoucher to cover up their bad work, and he hoped that photographers would take a stand against the morbid demand of the public, old ladies in particular, who insisted upon being represented as if quite young.

The subject was then dropped, and the meeting adjourned.

CHARLES EHRMANN,
Secretary.

FOREIGN BRIEFS.

THE English journals report an unusually large number of photographic exhibitions this winter, prominent among them being those of the Royal Cornwall Polytechnic Society, Manchester, Newcastle-on-Tyne, Bristol and West of England Amateur Photographic Association, and the well-known Societies of the metropolis. Interesting courses of lectures on the art are also announced.

ENLARGEMENTS FROM SMALL NEGATIVES.

Intelligent amateurs are becoming more and more interested in making enlargements from their accumulated stock of negatives. That it is not only feasible, but easy, is well known, at least to those who take pride in making good negatives. Enlarged glass positives for window ornaments may be made to exhibit an amount of true photomanipulative skill little thought of by those not having attempted it, both in the perfection of the original negative and the enlarged result. As almost all transparencies require toning, it may be said that the most stable and reliable agents will be found to be a strong solution of mercury applied to the film till bleached, followed (after a thorough washing) by cyanide of silver—a time-honored formula. Enlarged negatives also may easily be made if a suitable contact

transparency from the original negative be first obtained. Perhaps there is no better process to use here than our much-praised modern friend, gelatin. Still, without wishing in the least to detract from his fair fame, we must say that we have seen results from washed collodion emulsion simply faultless for this, or, indeed, any other purpose. Wet collodion, however, we should consider as ruled out for purposes of enlargement; no matter how carefully worked it may be, and how pretty the transparency may look when held against the clear blue sky (the only proper light to examine such results by), still sufficient granularity being produced by the rapid iron development to show badly in the resulting enlargement, making it coarse and mealy. Every successful photographer is said to have a special knack at fitting up and extemporizing apparatus for special purposes. How easy to such a one, then, to supply himself with a large plate-holder, and a few inches of a moderately fine rack and pinion adjustment; then, having arranged these in proper position on a long board, at the right distance from the lens, a few hoops and long sticks, supporting some dark cloth, will form the camera body—much cheaper and far less bulky than a regular enlarging-box. We believe that there never was a time when these remarks—suggested by a paper read before the Liverpool Amateur Photographic Association, by the Rev. H. J. Palmer, M.A.—could be considered more in the favor of outdoor workers particularly. The portability of our modern dry-plate outfits has already much increased the number of landscape men, and we feel sure that enlargement opens a most interesting field for all these, and one, too, in which spare days in winter may be very profitably employed. Having experimented successfully in this direction ourselves, we will be glad to lend a helping hand, to the best of our ability, to any beginners who may not see their way clear.

THE officials of some French railroad companies must deposit their photographic portraits with the Board of Directors, and are not allowed, while in office, to let their beards grow, or to shave, as the case may be,

so as always to resemble the photograph in the hands of the despotic directors.

THE German photographic journals are just now much interested in Dr. J. M. Eder's paper on the relative consumption of silver in the different photographic processes, reference to which is also made in Dr. Vogel's letter, appearing in the January number.

ANSWERS TO QUESTIONS TO THE CRAFT.

To make the matter contained in these answers more generally useful to our readers, and to facilitate convenience of reference, we again print the questions of the circular letter of December. They are still addressed to *all*, and we respectfully reiterate our request for *full* answers—particularly in the department of gelatin negative work, which cannot fail to be advanced, and have its already great usefulness increased, by a free interchange of opinion; especially as to the causes of failure.

1. What has been your experience with emulsion plates? Are you having success with them, and what advantages do you find in their use?
2. What have been your failures with them, and what the causes thereof, and what the cure?
3. Do you think they will ever enable you to discard the bath and collodion?
4. Do they place you in the way of producing more artistic work?
5. How do your patrons like the resulting pictures?
6. Are your patrons more appreciative than formerly?
7. What are the prospects for business during 1882?
8. Any further hints for the good of our co-workers, will you kindly add them?

I shall try to answer your questions as fully as possible.

To Question 1. I have the best of success with the emulsion plates, and they are exclusively used in my gallery over a year. The advantages of dry-plates are too obvious and numerous to need mentioning, on account of the great rapidity by which the exposure can be made and by the unchangeable condition of the plates for any length of time; many negatives of groups,

children, and of sittings in cloudy weather can be obtained, which would be lost if the dry-plates were not at hand. Any photographer who has made himself once familiar to work dry-plates, will appreciate their merits and never be without them. They all have to come to it sooner or later.

Question 2. With good plates there should be no failures. Failures arise mostly from improper light in the camera, or during development, from gross errors in time of exposure, or want of judgment and care in developing, imperfect washing, or use of solutions and water not sufficiently cold during the hot season. It is absolutely necessary to have the dark-room properly arranged and everything in good shape for dry-plate work, as the plates will not suffer any careless treatment in any respect. They are like a fine horse that will obey its master, but will not behave at all if wrongly treated.

Question 3. Collodion and silver-bath are things of the past with me. I have discarded them entirely.

Question 4. The plates surely enable me to produce more artistic work, better poses, and the natural expression of the sitter can be much easier and better secured than by the old slow wet process.

Questions 5 and 6. My patrons, of course, like the instantaneous process; they are better pleased if they are not forced to the tortures of a long sitting, and as the resulting pictures are better in every respect, they appreciate the merits of the new improvement and are willing to pay better prices, and are better satisfied, so that the higher cost of the dry-plates is more than fully repaid by the receipts.

Question 7. Prospects for business during 1882 are fine. The introduction and success with the dry-plates which I have had more than doubled my business.

Question 8. I hope that many of the fraternity will be induced to work the dry-plates, to raise the standard of their work and improve their business. In commencing, the results may not be equal with those from the wet-plates. This was the case with me, and I suppose with most of the fraternity, before we got plates to perfection, and before we were fully competent to work

them; but after a little practice things will be quite reversed, and the prints from the dry-plates will show much better results than the best of wet-plates. Of course, it is a condition *sine qua non* to use dry-plates that are perfect, and as I am happy to always have a good supply of Cramer and Norden's extra rapid, I look for a happy New Year, and wish the same to all my co-workers.

Hoping to hear from you again in course of time, I remain yours,

G. CRAMER,
St. Louis, Mo.

In answer to your eight interrogatories pertaining to the "gelatin bromide process," I will try to treat them in their order:

1. My experience with emulsion plates is such that I am pretty well posted on the process, having used them for the past ten months, with the exception of some six weeks during parts of September and October, when I returned during that time to the use of the bath plates, for the reason that I was not fully satisfied with their behavior at that time. I have had, as a whole, good success with them, and find the advantages in their use greater during this time of the season than during spring or mid-summer; the reason I will briefly state, that they are more sensitive to the yellow ray on yellow days, during autumn I find that emulsion plates are one hundred per cent. more rapid than bath plates, in comparison with other seasons. Here I might draw attention to another point, which will show why it is that one man finds that emulsion plates are ten times more rapid; and another party, whose veracity is not to be questioned, will contend, and rightly too, that he can only produce the same results in one-third or one-fourth the time he will with the bath plates. I believe the sequel lies in the color of the glass in the skylight.

Emulsion plates have unquestionably more speed than bath plates, and where nothing but good uniform plates are used, the result, as far as the negative is concerned, is perhaps all that one could wish for; with the prints, it is otherwise.

2. My greatest failures in emulsion work have been flatness rather than hardness, owing to the unequal coating the plates had received, or the desire for rapidity in the

making of the emulsion had been gratified too far; consequently, the plates had no "git" in them, and over-exposure certainly played a good hand in producing flat negatives, with a faultless plate, correct timing, and lighting up of the subject, which should have no heavy blacks, for the reason that emulsion plates do not work so deep into the shadows as the bath plates do. As the third question treats on the discarding of the bath entirely, I will state that during seven months I had no bath in operation in my studio; still I believe the best plan, and the one I have adopted now, is to work both the emulsion and the bath, and use each one for their respective work which they are capable to perform.

The fourth question I will treat by stating that they certainly are a power in the hands of the operator in producing effects where the bath plates would result in failures, for such would be the case where rapidity was essential in catching a difficult pose or expression on larger plates.

5. My patrons, as a rule, do not know the difference, and care very little by what process the pictures are produced, so long as they are pleased with their expression, and the retoucher has done his duty.

6. Comparing my patrons' appreciation with previous years, it is my experience, and I believe many of your readers will agree with me, that they, as a rule, are more exacting.

7. The prospect for business during 1882 is good, the country is prosperous, money is plenty, but prices continue to tumble—Why?

At no distant day I will give you my other experiences.

JOSHUA SMITH,
Chicago.

DEAR SIR: Yours of the 1st at hand. In answer to your questions, I will say: 1. For three months past I have used dry-plates exclusively, with perfect satisfaction and success. 2. Spots and fogging, bad plates, very few. 3. I have discarded bath and collodion. 4. Yes. 5. Very much. 6. Much more. 7. Very good. 8. Every *artist* photographer in this country is charging too little for his labor; an increase of from fifty to seventy-five per cent. would be just.

Less work and more compensation should be the motto of Sarony, Kurtz, and others.

LEON VAN LOO,
Cincinnati.

In regard to my experience with dry-plates, which has been rather limited, but with about the following results: 1. I have used them and been very glad of them, in cases where the light was limited and required long exposure, and going long distances to photograph the dead or interiors of buildings, machinery, etc., but when I compare them with my wet-plates I find a lack of brilliancy, but I have made some very good pictures with them.

2. My failures have been caused by frilling and spots coming on when developed, and never having attempted their manufacture, cannot tell the cause or cure, for some plates out of the same lot will work all right, while others will frill and spot all up. And when you go a long distance, and are particularly anxious to get something nice, to have those you take the most pains with unfit for anything, while those you cared the least for seemed to come out the best, it kind of discourages one in the attempt to use them.

3. Don't think they will ever entirely take the place of wet-plates; at all events I think I shall hold on to my bath for some time yet, but shall also keep some of them on hand as a kind of "DURN YE" resort.

And yet, when I see such beautiful pictures as were shown us in New York, by Mr. Scholten, of St. Louis, I just think I don't know anything about their use, or else I have not had the right kind to work with. But I think the more we study them and find out their eccentricities, and the kinder we are to them the kinder they will be to us, and prove a friend indeed in many and many a time and place where they will be invaluable.

4. Thus far I can't say as I can brag very much over the wet-plates in point of artistic work; consequently I have not said much to my patrons about them, and thought I would not until I could gain a little more confidence in their use.

5. I think my patrons *are* more appreciative, but I think I find the cause in my

trying very hard to improve my work, and the proof that they do appreciate my efforts is the fact that I have been able to charge more for my work than those around me, and get it, too.

I think the business prospects for 1882 are very flattering, and I can't see how any one can help doing well if they will charge a *good, fair price* for their work and *be sure* and make their work *worth the price*. It seems to me if photographers would just look around all over the country, they would see that when a man begins to cut down prices, just that moment he begins his downfall, and loses the respect of his patrons and also his own self-respect, and they will always find it much easier to go down than up. Let us try and respect ourselves *very* highly, then will our *patrons* respect us, then will the Photographers' Association of America be an honored and useful association. Let each and every one pay his dues promptly, work hard, and come to our gathering next year, and help to make it stronger and better. And I would suggest that we hold our election on the first or second day of the session, so that each one can have a voice in choosing our officers for the coming year. At all events, let us come together to do each other good and not to quarrel. And now, if you can sift out any grains of gold that will do any one good, you are welcome to it.

J. H. REED,
Clinton, Iowa.

I can give no *practical* information, as I have neither made nor used the dry-plate, being strictly in the *solar* and *copying* business. I looked upon the plate as too expensive a luxury; I propose, however, as soon as there is a lull in my solar work (if it ever comes), to make dry-plates, and give them a fair test in the copying business. I very much doubt if, with present knowledge, solar negatives can be made by dry-plates, which for delicacy and quick printing qualities will compare with wet-plate negatives. But from the signs of the times, I candidly think the dry-plate will *soon* be brought to such perfection that the silver-bath will follow the coating-box, and become "a thing of the past."

I have lately built on my own lot at

home, my solar and copying-house—and it is a daisy—the most convenient place I ever worked in; and it is a luxury. No long trips to and from work. I find I can accomplish about double what I could with rooms down town.

Now I have answered *your* questions, to the best of my ability, permit me to turn the tables on you.

1. Please tell me what you know of the practical working of Anthony's new *Bromo-Gelatin Paper*, for rapid printing.

2. Please tell me what kind of an hektograph, or "what is it," you used in getting up these question circulars. They are nicely done, and few would notice that they are not entirely written by hand.

With kind regards,

E. LONG,
Quincy, Ill.

I had already prepared for *Mosaics* what would answer your questions, and, as they are not in the shape to reply to your numbers, will now lay that aside and formulate them in reply:

1. As to my experience with emulsion plates. Commenced their use in December, '79; was *delighted* with their *rapidity* and the apparent beauty of the negatives, but *awfully disappointed* when I came to compare the prints with those made from wet-plates. Gave them *more time*, got flat negatives; less time, *harsh* negatives; more ammonia in developer, got green or yellow fog; tried all the different pyro developers published, with all varieties of light, expression, and varied strength of developer. Out of the first three or four hundred plates, I got about a dozen negatives that made salable prints, and none of them up to the standard of prints from No. 1 wet-plate negatives, daily made. For the past two months I have had *good* success with them, having found a maker whose plates give clear shadows and vigorous detail; about equal to No. 1 wet-plates, and far surpass a poor wet-plate. The only advantage I find in dry-plates is their rapidity. In this respect they are a great help in groups and of dark days.

2. The failures have been yellow fog, green fog; lack of strength or vigor giving muddy prints, black opaque spots and streaks

caused by dirty glass, white or transparent spots from the size of a pin's head to the size of a dime. The green and red fog I partly got rid of by flowing the plate (after clearing and washing) with weak solution of muriatic acid—1 ounce of acid to 15 of water; this also helped clear up yellow fog. The fog has all disappeared since I commenced using the following developer: Carbonate of potash, 10 pounds; oxalic acid, 8 pounds; dissolve each in warm water; pour the oxalic acid into the potash solution, a little at a time (which should be in a large stone jar), so the jar will not overflow by the effervescence. Those will cost at the drug stores ten to fifteen cents apiece. When, by adding the oxalic acid, the effervescence ceases, your oxalate of potash is neutral. When cold, filter and add to each gallon 100 grains of citric acid, shake up and put away; this will keep indefinitely. The above quantity will make ten to twelve gallons of solution. Next make a saturated solution of iron: to each quart of this add 5 drops of sulphuric acid, and filter. Now, for use, take 6 to 8 ounces of oxalate solution and 1 ounce of iron solution, and add the iron to the oxalate; this will keep in good working order a long time; filter as often as is required to keep clean. If it acts too slowly, prepare a little new and add to the old; develop much more than for a wet-plate, as the cleaning cuts it down very much. Different makers of plates require more or less development. With this developer you get no fog of any kind except the whitish haze in some makes of plates. I have found only one make that is free from this defect.

3. This is a hard question. I wish they may. But it will be when we know more of gelatin and its sensitive preparation than we now do, so that all the larger galleries will make or prepare their own plates, and use the same liberality towards each other that they now do in the wet-plate work. I have lately made some collodion with "collodion" cotton, bought of Bachrach & Brother, that makes the quickest and finest collodion I have ever used. With this and a neutral silver bath, kept up to a temperature of sixty to eighty degrees, there is little to fear from the rapidity of dry-

plates for gallery work. The present expense of dry-plates, and their want of uniform excellence, is a decided bar to their use for general work in the gallery.

4. No.

5. Not so well. Scarcely any one knows what is the difference; but they usually pick out the wet-plate prints.

6. They are better judges of good work, as a rule; but still are greatly in need of education on that point.

7. Not much prospect that any of the Chicago artists will become millionaires.

8. If dry-plate makers would purify their gelatin, as when a boy in northern Vermont we used to purify maple sugar, I think an improvement in thin plates would be the result. Proceed thus: Soak and dissolve the gelatin at a low heat, and quite thin, and as cold as it can be to remain liquid; add to each quart of this dissolved gelatin the whites of two or three fresh eggs, and beat all up thoroughly with an egg-beater, and then cook so long as a scum rises; allow to stand until cold, skim off and throw away the scum, and make the emulsion of this clarified gelatin. Try it, you who want to make your own plates, and give the result to an old veteran.

I like the way you put the questions, yet feel very incompetent to answer them. If you think the replies will help any one, you can make such use of them as you see fit. Those who undertake the use of dry-plates, as furnished by the makers, will find lots of disappointments. What has become of Vogel's Patent Emulsion? Is it to die before seeing the light?

A. HESLER,

Chicago.

1. Dry-plates with me are a success. I use them always for children, groups, and nervous subjects, and whenever I fail in wet.

2. Have had but few since the Association, the great trouble being to have all light come through the lens.

3. For general work they will.

4. Yes.

5. Very well; as I get results I could not otherwise.

6. Yes.

7. Very good. Town growing rapidly.

8. *Philadelphia Photographer*, *Photographics*, *Photographic Times*, and other publications, give me all the instruction I want, and I consider them the best paying stock I have.

Respectfully,

GEORGE W. KIRK,
Huntington, W. Va.

FRENCH CORRESPONDENCE.

Use of Divers Salts of Mercury for Engraving on Zinc, either in Intaglio or in Relief—Method of Forming the Protecting Surface on Zinc in view of the Different Processes of Engraving—Spread in France of the Teaching of Graphic Arts applied to Copying—Application that may be made of them to Porcelain and Tissues—A Word on the Copper-Plate Engraving Process Perfected by Mr. Gobert.

IT is known that zinc, amalgamated with mercury, refuses to take up the fatty body which adheres, on the contrary, to unprepared zinc. Mr. Fisch has just patented a process of engraving on zinc, based on the amalgamation of this metal with mercury, and on the property possessed by this amalgam of being soluble in nitric acid, and insoluble in muriatic acid.

A first application of the idea of Mr. Fisch, consists in placing on the zinc plate a photographic protecting surface, leaving bare the portions of the metal which are to be amalgamated with the mercury. This protecting surface, made either with bitumen of Judea, albumen, or bichromatized gelatin, is covered, all being very dry, with biniodide of mercury in very fine powder.

The action of biniodide of mercury on the zinc, causes the amalgamation of this last with the mercury, after about two hours' contact. It is well, in order that the effect should be more perfect, that the contact should take place under pressure, that is to say, that it is necessary, after having covered the whole surface of the plate with the mercurial powder, to place on this surface a glass plate, and on this a rather heavy weight.

After the mercurial powder has produced its effect, it is returned with care to its re-

ipient, avoiding to breathe the particles of this poisonous substance. The plate is then washed with a solvent of the protecting surface—oil of turpentine for the bitumen, or water, either cold or hot, according as the surface is formed by albumen or gelatin. Strong friction is used to remove all trace of the coating.

In this case, we have as printing portions of the zinc, those which were covered by the coating. It is thus seen that by making use of a positive or negative, it is possible to obtain the drawing either in white lines on a black ground, or in black lines on a white ground.

If, instead of simply using the zinc as a lithographic stone, we wish to have an engraved line in relief, bite with water containing from two to three per cent. of muriatic acid. If we wish to obtain sunken lines, attack the exposed portions by a two per cent. solution of nitric acid in water. The acidulated water will energetically attack the amalgamated lines, whilst it will only attack the other portions a long time after the action has shown itself on the amalgam. It is easy to perceive all the advantage to be obtained from this process, so simple in its application.

The process making protecting coatings of the bitumen of Judea is known, and we will not speak of it, but we advise, in the processes above referred to, the use of bichromatized albumen. The albumen solution is thus composed :

Albumen (say the whites of

4 eggs beaten to a froth)	100 grams.	(3 Troy ozs.)
Water,	50 "	(1½ oz.)
Bichromate of Ammonia, 2.50 "		(38 grains.)

This solution, well filtered through paper, is placed on the surface of the zinc, and carefully spread by means of a turn-table. The film must be very thin, but very even. The drying is obtained rapidly by placing the zinc plate on one of cast-iron, heated to about 40° Centigrade (104° Fahr.). As soon as dry, expose through the negative. The exposure lasts, according to the light and the opacity of the negative, from about one to ten minutes, and even longer, if we use, instead of the negative, original designs traced or printed on paper but slightly

translucent. After exposure, dissolve in cold water the portions of the albumen film which have not been attacked by the light; dry, and then apply either the fatty ink or the mercurial powder before referred to. It is thus possible to obtain rapidly and economically zinc plates ready for planographic printing in black, or capable of being easily converted into engraved plates, either in sunken or raised lines.

The use of bichromatized albumen is, in the present case, much to be preferred to that of bitumen of Judea. This substance being slightly sensitive to light, requires a very long exposure, which, in winter especially, is very annoying.

The manipulations of albumen and the washing of the plates are, besides, very simple. This last requiring ordinary water only, which is more economical, and does away with vapors more or less injurious when breathed.

We are not sufficiently familiar with all the advantages to be obtained by using zinc in graphic impressions. It is important to ascertain this exactly by making use of this metal—in plates polished or grained, in all the divers processes in which it can be utilized, in the three known and absolutely distinct kinds of printing, namely: Typographic, plano-graphy, and copper-plate.

Zinc is the only metal adapted to these three kinds of printing, and when lightly bitten, it is even possible to use it in making prints, which, whilst at the same time offering the advantages of engravings in sunken lines, are obtained by means of a purely lithographic inking. This is a fourth method, offering much interest on account of the rapidity and clearness of the results, as well as the simplicity of the execution.

Most of these processes belong in part to photography, but they imply chemical manipulations of the same kind as those used in engraving with acid, and they are within reach of all artists, who would be able, aided by photography, to engrave their plates or drawings, after these last have been made on paper. Unfortunately, outside of a few specialists who make a business of applying these divers processes, they are not generally known. We have just had the very evident proof of this at Limoges,

where we had gone to deliver some lectures based upon the application of the principal graphic arts to the decoration of porcelain.

Limoges is an important commercial centre, in which not less than twenty-five millions of francs of business is annually done in the manufacture and decoration of porcelain. Now, at Limoges, but two processes are yet used in ceramic decoration: 1. Lithochromy. 2. Engraving with acid.

Lithochromy is used in printing, with several colors formed by metallic oxides, images which are in every way similar to those of chromo-lithography, with this single difference, that the colors used can withstand the action of fire, and that they are printed on a sized paper capable, after application on the porcelain of the colored image, to abandon this image detached from the paper. In a word, it is a kind of decalcomania.

As to engraving with acid, it consists in transferring to the porcelain which is to be decorated, the lines of divers drawings to be afterwards colored with a brush. The artist thus finds the drawing all ready, and it is very easy for him to put the colors in the partitions formed by the lines bit by the acid. Outside of these two modes of decoration, there is nothing except direct painting by hand.

It seems to us that the number of graphic means furnished by photography is sufficiently large to enable us to improve an art still in its infancy. It is pitiable, indeed, to see the coarse designs used for printing on porcelain, when it would not cost more, when it even would cost much less, to decorate it with subjects having a real artistic value. Fine subjects are certainly not wanting, and photography is there to reproduce them with accuracy. Why is it, then, that these hideous pictures are still used, pictures in which nothing is true, nothing is beautiful? By the aid of photographic impressions, either monochrome or polychrome, it is easy to prepare prints upon a temporary vehicle, to be afterwards transferred to porcelain. The question of baking in the muffle has no place here, as everything depends upon the nature of the coloring substances employed, and the thickness of the film of the coloring matter.

Photography offers no obstacle to the use of thick films; it does not prevent the protecting coating having an action upon the metal and the more or less deep engraving of it. Everything depends upon the views taken by the practical operators, and in order that they should progress they should at least be familiar with the scientific discoveries applicable to their kind of work, and this is just what most of them are ignorant of.

It is for this reason that efforts are being made in France to extend the teaching of the methods of reproduction and copying. It is with this end that there has been founded in the National School of Decorative Arts the chair of Industrial Reproductions, which we now fill. It is for the same object that we have just been sent to Limoges to deliver lectures at the National School of Decorative Art of this important industrial centre.

No doubt a chair of industrial reproductions will be founded at Limoges, as our lectures had great success in giving to the leaders of the manufacturing interests useful information, the knowledge of which they did not possess.

There is also question of adopting the same course for the national schools of Roubaix, Nice, etc. In this way the greater extension will be assured in France to the teaching of graphic arts of copying, and they will then render services of much greater importance. What we have said about porcelain applies equally well to tissues. Now, can it be believed there is in France but one establishment for printing on tissues that uses photography?

This newly-established house will soon begin work, and we feel sure that it will produce some very interesting results. Here will be applied the different photographic processes capable, either singly or in combination, to give the desired result. Besides, nothing will prevent the use of these printing processes in colors, in the same manner as is done in printing establishments, but in combination with photographic impressions of modellings and designs, in order to obtain at the same time the charm of color and purity of form. We would not so often plead in favor of this combi-

nation of mechanical coloring and photographic impressions, if we had a large number of artists capable of making colored designs possessing a positive artistic value. In this case it would be better to realize the direct impression of original productions; but in default of this, is it not better to take, wherever we can find them, excellent models and copy them industrially, preserving at the same time their artistic character? It is for this reason that we attach great importance to the spread of copying processes. The more they become known, the more they will be used, and the more perfect they will become.

The course taken in France by the Minister of Arts is, therefore, a very good one, and it may greatly contribute to the progressive amelioration and perfecting by practice of those interesting processes with which our photographic treatises are filled, processes never utilized with the exception of a few which, although not among the best, enjoy the benefit of routine. Routine is so great a force after that of inertia!

The Gobert process for engraving on copper may be mentioned as an example. This very ingenious process, simple beyond expression, has been, or will be, published in all our photographic journals and treatises; but, if something better is not done, if the manner of using it is not taught in special establishments, there is much to wager that in a short time it will be a dead letter for the greater number of engravers and artists. It is possible that a specialist on the lookout for novelties may use this engraving process, but he would be an exception, a veritable spring in the desert of Sahara.

We had an opportunity of showing this process to a large number of artists and workmen, and they were enchanted with this method of engraving, which, while preserving the original design, allows one, according to taste and necessity, to engrave with all the desired varieties of depth. What an immense progress have we here realized over the old etchings, in which it was necessary to draw directly on the varnish to reach the metal, thus running the risk, in case of inattention or any ill-success, of destroying the whole work. Nothing of this is to be feared in a process of

engraving which preserves the original design, and in which the operations are so simple that, in case of a want of success, nothing is easier than to begin the work again. We feel much interested in the introduction of this process, and we purpose to publish it in full in our next letter, so that no one can have the least hesitation in making a trial, and in practising its use. Moreover, in case of any doubt or failure, we are always devoted to the interests of the estimable readers of the *Philadelphia Photographer*, and ready to give them, at their request, any complementary information. We send them with this our sincere wishes for a successful and happy New Year.

LEON VIDAL.

PARIS, January 1st, 1882.

GERMAN CORRESPONDENCE.

Increasing Sensitiveness of Emulsion Plates by Carbonate of Sodium—The Best Style of Preliminary Coating—Moonlight Copy on Dr. Vogel's Emulsion Plate—Restoring the Oxalate of Iron Developer—Adding Bromide and Hypo to the Oxalate Developer—Enlargements on Skirting.

It is a matter of course, that more than ever the general attention is drawn upon the highly sensitive dry process during the winter season. The weather is so gloomy that the desperate photographer has to fall back upon it, whether he likes dry-plates or not. A few days ago, Mr. Jastrzembky published an interesting expedient for increasing the sensitiveness of a gelatin plate. He immerses the plate a minute or two in a solution of carbonate of sodium 1 : 100, and dries. I tried the method, and found it to work admirably. Dr. Eder, however, expresses the opinion that, owing to the influence of the carbonate of sodium upon the gelatin, the plates will not keep long. Decidedly better yet, the said expedient acts with plates of my emulsion, the same becoming not alone more sensitive, but also more intense. But Jastrzembky remarks quite truly, that the treatment with solution of sodium carbonate increases the tendency to frilling, and that, therefore, for such plates a substratum becomes necessary.

Recently I made thorough trials with the different preliminary coatings for my emulsions; I tried the India-rubber solution, and the aqueous and alcoholic gelatin solutions, and have arrived at the conclusion that the aqueous gelatin solution, with chrome alum, is the easiest and most reliable. The preparation with this solution is very short, it is quicker done than cleaning plates, and such plates I can recommend for the wet process as better than albumenized plates. Here is the formula: Dissolve 1 gr. gelatin in 300 gr. warm distilled water, filter, and after cooling off, add 6 c.c. filtered solution of chrome alum, made in the cold (strength 1 : 50). This keeps from four to six days. The plates, soaked in acid, are washed very thoroughly with rubbing, and then placed in a tray of distilled filtered water. The plates are then taken out one by one, squirted with filtered distilled water (it is best to use a squirter for that purpose), and a portion of solution of gelatin is poured on, which is allowed to cover the whole surface, and then drained off—the waste is not kept. The first coating removes the water; when it has been drained off, pour on the second coating, and place the plates in a vertical position for draining and drying. In moderately cold weather, the plates dry in the course of an hour. In winter, the gelatinizing is done in a warm place, as cold plates receive the gelatin with great difficulty.

Recently Mr. Braesecke showed the result of an interesting experiment, viz.: a diapositive, made by contact-printing upon a Vogel's emulsion plate in moonlight and developed with alkaline pyrogallie acid. The exposure lasted fifteen minutes. To make the same copy with gaslight, seven seconds at a distance of 6-7 inches would have been required, and this experiment shows that moonlight acts chemically one hundred and thirty times weaker than gaslight. Nevertheless, this chemical strength of light appears not so insignificant, when the immense distance of the moon and the absorbing influence of the atmosphere of the earth are considered.

If Mr. Braesecke used the pyrogallie developer in his experiment, it does not follow, consequently, that the same merits the pref-

erence. In fact, lately, the ferrous-oxalate-developer in its simple form, as it is mixed by Eder, gains more and more ground here; and I have adopted it now also for my emulsion plates, for which it is well adapted, the same requiring only the addition of a larger quantity of potassium bromide than gelatin plates to avoid fog, so that, for three ounces of mixed developer, I use as much as two fluidrachms of fifty-grain bromide solution. But as the oxalate solution must be used strong, and is therefore expensive, it is well to collect the developer that has been used, and restore it—as suggested by Eder. For this purpose, the old developer, together with the residue on the bottom, is poured into an enamelled cooking-pot and warmed. Next, alcohol is poured in gradually until a small portion of the liquid, filtered off, does not show any more precipitate with it. Now the pot is taken from the fire, and the liquid filtered when it has cooled off. The filtrate is yellow, and contains still small quantities of iron, and consists of a strongly alkaline solution of oxalate of potassium, which is neutralized with oxalic acid (a small excess does not matter), and in order to make the solution saturated, some fresh oxalate of potassium is added. The solution of oxalate of potassium restored thus, contains bromide of potassium, and if this is to be removed, add cautiously nitrate of silver solution until no more bromide of silver is precipitated.

With many gelatin plates the adding of bromide of potassium to the developer is not required, the addition is necessary only for such highly sensitive plates as show a tendency to veil. Much also depends upon the nature of the film. Collodion dry-plates cannot be developed at all without bromide of potassium. My collodion emulsion-plates require also more bromide of potassium than gelatin plates. A very important modification in the iron developer is the addition of hypo during the development. A very small quantity of the same (to 3 ounces of developer 10 to 20 drops of a solution of hypo, 1:200) makes the developer more sensitive, and the plates softer; too much hypo, however, easily produces fog, and in such cases the percentage

of bromide of potassium must be increased.

Eder gives the following formula:

Oxalate of Iron Developer, . . .	4 ounces.
Bromide of Potassium Solution, 1:10, . . .	15 to 30 drops.
Hypo, 1:200, . . .	30 drops.

America is the place for enlargements. In Europe, not a tenth part of the enlargements are made as compared with America. Several establishments here use the electric light in place of the sunlight, when the latter is conspicuous by its absence, and this substitute gains in favor here more and more. One of the best known establishments for enlargements is Winter's, in Vienna, in which, instead of paper, shirting is used. The pictures made by Winter represent not alone portraits, but also decorative landscapes, fancy pictures from drawings, which are used for decorating ceilings, etc. The well-washed shirting is placed in a vessel of the following solution:

Bromide of Potassium, . . .	3 parts.
Bromide of Cadmium, . . .	1 "
Iodide of Potassium, . . .	1 "
Water,	240 "

The vessel is placed at such an inclination that the salt bath flows entirely in one direction, where two assistants hold a strong glass rod across the vessel, the shirting is immersed in the liquid and then drawn over the glass rod, by which the superfluous liquid is removed, and then it is hung up to dry. The sensitizing or silvering takes place in the same manner in a room with yellow-glass windows. The shirting is immersed, drawn over a glass rod, and hung up to dry.

The silver-bath is made up as follows:

Nitrate of Silver,	4 parts.
Citric Acid,	1 "
Water,	140 "

The picture is exposed wet. The exposure lasts usually from ten to thirty minutes, with electric light, so that it is left to the judgment of the operator to hit the exact time. After the exposure, the weak outlines of the picture are already discernible upon the paper. The shirting, which of course does not get any stiffer in

the salting and sensitizing, is brought again into the wash-house and developed in a white enamelled tray.

The developer is made as follows :

Pyrogallic Acid,	10 parts.
Citric Acid,	45 "
Water,	410 "

As is readily seen, the developer is pretty acid. When to be used, it is warmed to about 30° R., but yet acts pretty slowly. After developing, the picture is well washed, toned, and finally fixed, and washed again yet more thoroughly than before; and, as the stuff can stand so much, the washing can be done both more quickly and more thoroughly than in the case of paper prints. The picture appears pretty rough after drying, as all the fibres of the stuff stand upright, and it is therefore waxed; a semi-liquid mass of wax is rubbed in with heat, by which the picture becomes smooth and brilliant, the shades become more transparent, and the lights do not suffer. Many of the pictures are finished in oil, and the effect is very good.

Very truly yours,

H. W. VOGEL.

BERLIN, December 30th, 1881.

DR. VOGEL says, in the *Photogr. Mittheilungen*, in regard to Edward L. Wilson's *Mosaics* :

"The *Mosaics* is no almanac, but forms a chronicle, and offers a number of highly interesting articles on photographic subjects conspicuous during the elapsed year.

"Mr. Wilson has many excellent contributors for the *Mosaics* in America, England, Germany, and France, which represent all branches of photography, optics, technics, æsthetics, chemistry, etc., and who for the past eighteen years have helped to make it one of the most excellent works of the kind published. The present number is worthy of its predecessors."

SILVER INTENSIFICATION OF THE GELATIN PLATES WITH GALLIC ACID.—The following intensifier keeps the shades quite

clear, and imparts to the plates the appearance of beautiful wet negatives.

Make the following solutions :

I. Gallic Acid,	1 part.
Alcohol,	10 parts.
II. Nitrate of Silver,	1 part.
Water,	16 parts.
Acetic Acid,	$\frac{1}{4}$ — $\frac{3}{4}$ "

Both solutions will keep.

Before using, mix one part of the solution I. with about four parts distilled water, adding a few drops of the solution II.

The intensifier remains clear, and neither discolors nor precipitates silver. It is used after fixing and in daylight.

Before pouring the intensifier upon the plate, it is necessary to wash the latter thoroughly after fixing, and then to pour over it, for about a quarter to half a minute, very weak nitric acid (a few drops to 100 c.c. of water), in order to destroy the remnants of hyposulphite of soda, then to wash with distilled water.

This acid solution, furthermore, clears the plates without affecting, in the least, the most delicate tones.—*Photogr. Mittheilungen*.

To simplify the manipulation of Vogel's emulsion, the following is recommended in the *Photogr. Mittheilungen* :

1. As substratum, the exclusive use of aqueous chrome gelatin solution is recommended, as the preparation is done quickly, and makes a firmer film than any other substratum.

2. Before developing, wash the plates thirty seconds under the hydrant, by which all white, stellated dots are avoided.

3. The developing is now exclusively done with iron (Eder's method) :

75 c.c. Neutr. Oxalate of Potassium,	1 : 3
2 " Bromide of Potassium,	1 : 10
25 " Sulphate of Iron,	1 : 3

We may divide the iron into two portions, beginning with one-half and adding the other half after the high lights have appeared, in case the picture should come out very slowly. Adding 8–10 drops of hyposulphite of soda-fixing solution 1 : 200, while developing, will make the plate softer, and bring out more detail.

Editor's Table.

PICTURES RECEIVED.—From Mr. THOMPSON, Amesbury, Mass., two lots of cabinet cards showing careful management. We suggest a trifle longer time on the dark subjects, such as ladies in sealskin sacques, etc. The portraits of children are excellent. Also from Mr. C. A. STACEY, Lockport, N. Y., a number of well-posed cards and cabinets, and views of his establishment in Main Street. Prof. KARL KLAUSER, Farmington, Ct., favors us with some excellent examples of his amateur work, one of them being a positive of the sun's disk by over-exposure. Prof. KLAUSER is an *artist* in feeling. He uses the emulsion plates made by Mr. C. F. RICHARDSON, Wakefield, Mass. He adds a series of acrobatic pictures from drawings by MORITZ VON SCHWIND, similar to the alphabet in our last issue—very entertaining. We have also received examples of their work from the following named gentlemen: E. D. ORMSBY, Oakland, Cal.; A. M. STRINGFIELD, Santa Barbara, Cal.; D. H. NARAMORE, Hacketstown, N. J.; Wm. McCOMB, Muskegon, Mich. We are pleased to note the improved work of photographers of to-day, as compared with that of ten years ago, all over the country, and in the work before us it is very evident that the artists who made it are trying hard to excel.

We clip the following from the *Boston Sunday Times*: "Messrs. RITZ & HASTINGS, photographers, 58 Temple Place, received a just recognition of their ability, over all competitors, by the award of a grand silver medal from the judges of photographs at the Mechanics' Charitable Association's recent fair. This establishment is one of the youngest and most enterprising in the city, and their good fortune is a source of pleasure to their patrons and many friends."

Mosaics, 1882, is meeting with success wherever it goes as the following extracts from letters sent us will show: "It is the best edition, practical and to the point. The one I received last season was so good and full of information that it was stolen. Thieves steal but the best."—C. F. MELKE, Edina, Mo. "Every year I look for it more eagerly than the last, and read it with great interest. 1882 is quite up to the mark."—J. F. RYDER, Cleveland, O. "It seems to be of good keeping qualities; no deterioration on account of age."—M. L. DAGGETT, Britannia, Mass

A NEW AMATEUR SOCIETY.—The following came too late for our January issue. "A so-

ciety called The Society of Amateur Photographers has been formed in this city, whose object is to enable those interested in photography to meet at regular intervals to compare notes in failures as well as successes, thereby profiting by the experience of each other. It is expected that instruction will be given in dry-plate photography from the cleaning of the plate to the finishing of the picture, thus giving all an opportunity of obtaining a complete and thorough knowledge of every detail. The leading periodicals in the United States and England, relating to photography, will be subscribed for and placed on file, where all members may consult them. Any person interested in amateur photography, and desirous of joining the society, may obtain further information by addressing the Secretary,

JOHN E. THURSTON,
Box 5157, Boston, Mass.

We rejoice over this, and wish the new organization all success.

THE January number of the *Photographic Times and American Photographer* reaches us in a handsome new cover, much improving its whole appearance. The table of contents is fully up to the usual high standard of practical matter so useful to the craft. We take this opportunity of expressing our thanks to the editor and publisher for kind permission to reprint the paper by Mr. Atwood, on the "Fading of Photographs," read before the Association of Operative Photographers in New York, as well as the minutes of the proceedings of that body on December 7th.

MR. A. M. ALLEN, of Pottsville, Pa., writes to us *apropos* of the article on "Cheap Picture-Making, and How to Stop It," in our last number, expressing himself in favor of any such movement if it can be started, "heart and soul," are his words, and he complains that the smaller country towns are deluged with cheap and poor work, much to the detriment of those who pride themselves on turning out first-class results. Mr. ALLEN's ideas will carry the more weight, when we say that he is a veteran in the calling—having entered in 1850.

Similar ideas are expressed by Mr. J. N. CHAMBERLAIN, of Webster, Mass.

A VERY kind letter from Mr. WILLIAM H. KIBBE, of Johnstown, N. Y., encloses his subscription for the coming year, and a flattering

notice of his new gallery clipped from a local paper. We hope that the flames may not pursue him a second time.

MR. D. H. NARAMORE, of Hackettstown, N. J., wishes to know of a safe chemical agent to remove pyro and silver stains from the skin, and says, that in his hands iodine followed by hypo is ineffectual. We know of no better means except, perhaps, to replace the iodine (if used pure) by LUGOL'S solution (solution of iodine in iodide of potassium). We suggest the use of a neatly-fitting, rubber finger-stall. As to the effects of cyanide when absorbed into the system, little can be done, save attention to one's manner of living, *i. e.*, general hygiene.

The best method of working over a bath, is to throw down the silver with a filtered saturated solution of bicarbonate of soda, and after, say, a dozen washings with soft water to redissolve it with nitric acid, and dilute to the proper strength. If it *must* be boiled, it should not be attempted without the sand bath.

MR. A. J. W. COPELIN sends us an artistically designed New Year's card, with gilt bevelled edges, supporting another medallion-like card, with a tasteful fringe and ribbon, the face of the latter showing creditable proofs of his photographic skill. A clever monogram is made, at the bottom, of the words "Happy New Year" and his own name.

A NOBLE TRIBUTE TO A NOBLE ART.—MR. LEON VAN LOO, of Cincinnati, in his circular, goes on thus: "*Artistic Photography*.—When the invention of Daguerre, in 1832, was given to the world, it was considered as a mechanical wonder only. The profession thus created fell into the hands of mechanics, and for many years was practised from this standpoint only, but when artists like the late celebrated sculptor ADAM SALOMON, WALERY, and NADAR of Paris, PETSCH of Berlin, SHAMBOCHE of Rome, NOTMAN of Montreal, and KURTZ and SARONY of New York, adopted the camera to illustrate their genius, they proved that photography, in the hands of talented men, was an art capable of expressing great artistic skill, elevated thoughts, refined feeling, and all that is beautiful in the creative imagination of genius. With such leaders progress was swift and sure, and to-day intelligent critics have placed their work alongside of the painter, the sculptor, and the engraver. Sir JOSHUA REYNOLDS never painted the varied graces of childhood more beautifully than we find them illus-

trated in the exquisite and numberless studies of PETSCH. What intelligent critic has failed to see the great beauty and artistic knowledge exemplified in the classic portraits of Adam Salomon? What lover of the beautiful has failed to go in raptures over the beautiful dashes of light and shade, and the graceful originality found in the stage celebrities of the inimitable SARONY? What artist has failed to enjoy the knowledge of composition, the refined feeling and dignity found in the groups and master portraits of KURTZ? Serious, intelligent, and beautiful are the works of NOTMAN, WALERY and others.

"Rapid as has been the progress in photoportraiture, chemistry, and inventions in perfecting instruments have kept pace; the greatest improvement of the past few years is the practical introduction of the *Instantaneous Process*, which has been used for some time past in photographing horses or objects in motion.

"I am happy to state that this process is now exclusively used at my studio, and portraits are daily made in the almost incredible time of from one to three seconds. This rapid working opens a large field for the studies of children and groups, reproducing with wonderful fidelity character, expression, and detail."

This is well said, and all the more graceful because it comes from one also great in our noble art.

WILSON'S *Photographies* in California is a great favorite; we have had several letters like the following:

SAN FRANCISCO, Nov. 17th, 1881.

EDWARD L. WILSON, ESQ.

DEAR SIR: Please send to A. M. COLLINS, SON & Co., twelve (12) copies of WILSON'S *Photographies* as soon as you receive this letter, to be packed with some goods that they will send me, for I need them at once. I received six copies of the *Photographies* with some goods from the SCOVILL MANUFACTURING COMPANY a few days since, but had orders for them in advance, and disposed of them all the same day that they arrived, which leaves me without a copy to fill an order.

Yours truly,

OSCAR FOSS.

The holiday trade exhausted the second edition of *Photographies*, but a third is now in the binder's hands, and will be ready for delivery about the 6th inst.

Soon we shall have to say of *Mosaics* for 1882: "All gone!"

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.



January 21st, 1882.

New Winter Landscape Background.
New Conservatory Background.
New Set Door, Conservatory and Art Gallery.

One design each side. Can be used with almost any interior Background. Very useful.

Bric-a-brac hanging cabinets, and several other "utter" and "Wilde" ideas.

FOR SALE.—The best paying gallery, with the best light, in this part of the State. Is located in a thriving city of twelve thousand inhabitants, with fine surrounding country. Only two other galleries within fifteen miles. For terms and reasons for selling, Address,
P. O. Box 1575,
Janesville, Wis.

FOR SALE VERY CHEAP.—A splendid collection of about twelve hundred negatives of architectural views from Europe and the United States. Size 8 x 10. Address,
A. LEVY,
4 Bond St., New York.

A PHOTOGRAPH wagon as good as new, with complete outfit, for sale cheap. Inquire of
H. B. GEIGER,
Geiger's Mills, Berks Co., Pa.

WANTED.—Quick-acting portrait, wide-angle view, and rapid rectilinear lenses; medium sizes, best makes. Send full particulars, and lowest cash price, immediately. Address,
WM. KANNGEISSER,
Symmes, Ohio.

THE

Rockwood Solar Printing Co.

Is organized with every possible advantage of capital, experience, solar cameras, artificial lights, etc., for the prompt execution of orders in the way of enlargements.

New and Lower Price-Lists.

Size.	Unmounted.	Mounted.
11 x 14 and under.....	\$1 00.....	\$1 50
13 x 16 }	1 50.....	2 00
14 x 17 }	1 75.....	2 25
16 x 20 }	2 00.....	2 50
18 x 22.....	2 50.....	3 00
20 x 24.....	3 00.....	3 75
22 x 27 }	4 00.....	5 00
25 x 30 }	5 00.....	6 00
26 x 32.....	6 00.....	7 50
29 x 36.....	8 00.....	10 00
30 x 40.....		
35 x 45.....		
40 x 50.....		

SPECIAL NOTICE.

NO CHARGE FOR NEGATIVES.—As much depends upon the good printing qualities of a solar negative, we will make solar negatives from copies, *without charge*, if the originals are sent to us with the orders for enlargements.

All orders must be accompanied by the cash. Make all P. O. orders payable to

ROCKWOOD SOLAR PRINTING Co.,
17 Union Square, New York.

THE NEW GELATIN BROMIDE PAPER, first introduced by us, for instantaneous printing, enables us to send enlargements for tracings by return mail.

FOR SALE OR RENT.—By the first of August, 1882, the only gallery in Olympia, Washington Territory, doing a business of from \$1500 to \$2000 a year. An excellent chance for a steady man well up in photography. Those meaning business only, Address,
L. W. CLARK, Olympia, W. T.

BARGAINS!

One 8 x 10 portrait lens, 4½ inches diameter, central stops, warranted first-class...	\$55 00
One 4-4 C. C. Harrison lens, good.....	20 00
One 4-4 lens, no name, good.....	15 00
One view-lens, perfectly rectilinear, for 11 x 14 and 14 x 17 views.....	15 00
One wide-angle, rectilinear view-lens, for 11 x 14 views.....	20 00
One 14 x 17 cone bellows-box, silver-wire corner-holders, double swing, in good condition.....	28 00
One 11 x 14 <i>new</i> cone-bellows view-box, silver-wire corner-holders, single swing (regular price, \$38).....	30 00
One No. 3 A. Voigtlander & Son's portrait lens, for 4-4 and 8 x 10 portraits (price new, \$86).....	45 00
One 17 x 20 Globe view lens, angle of ninety degrees and absolutely rectilinear (cost new \$140).....	45 00

All the above goods warranted as represented. The lenses will be sent C. O. D. by express, subject to four days' trial, and money returned on return of lens in that time to the express agent. Other goods cash in advance.

Address, BACHRACH & BRO.,
Dealers in Photographers' Supplies,
S. E. cor. Eutaw and Lexington Sts.,
Baltimore, Md.



WILSON'S PHOTOGRAPHICS

Is the most complete, thorough, photo-instruction book ever published. Second thousand in store. See advertisements. \$4.

A FIRST-CLASS operator wanted.
Address, J. W. UPHAM,
Jamestown, Chautauqua Co., N. Y.

WANTED.—A first-class retoucher. One who understands operating preferred. Retouching must be strictly first-class. Also a lady retoucher. State salary expected, and must give best of reference.
Address,

J. SPERBER,
90 & 92 Federal St., Allegheny, Pa.

OPERATOR wanted for one of the best galleries in Kentucky. Good salary, and permanent situation to a man capable of making first-class work.
Address, PHOTOGRAPHER,

Care P. Smith & Co.,
141 & 143 W. 5th St., Cincinnati, O.

FOR SALE.—\$100. One new 20 x 24 view-box, with plate-holder and printing-frames, all new; one Voigtlander & Son's view-lens, very fine and in perfect order, will cut a 20 x 24 view-negative clean to the corners.

Address, HAVENS,
Savannah, Ga.

WANTED.—A second-hand 14 x 17 camera-box, for portraits. Address, giving description, condition, and price,
W. WYKES,

35 Monroe St., Grand Rapids, Mich.

BACKGROUNDS.—Rustic grounds, 10 cents per square foot; exterior and interior 12, 15, and 20 cents per foot. A fine line of accessories always on hand. As our work is almost all painted to order, our line of samples are few but choice. Send for samples.

EXCELSIOR BACKGROUND CO.,
R. L. COX, Secretary. Gouverneur, N. Y.

RARE CHANCE.—Three-story French-roof house, with gallery, instruments, etc.; no opposition. \$2000. Address, D. S. VON NIEDA,
Ephrata, Pa.

WANTED.—Price-lists of frames, etc. Also a nine-inch burnisher, cheap.

PERRIOR & CO.,
18 E. Genesee St., Syracuse, N. Y.

NOTICE OF REMOVAL.—Mrs. Clarke, Artist, late of 561 Druid Hill Avenue, Baltimore, begs to inform her friends and the photographic profession that she has removed to 2104 North 20th St., Philadelphia, Pa., where she will be happy to receive any commission for water-color painting. Terms, etc., on application to Mrs. Clarke, or to the office of the *Philadelphia Photographer*.

MAKE YOUR OWN ENLARGEMENTS.—The Patent Gem Solar Camera will print the finest enlargements on albumen, platinum, or plain paper. Only \$60. Send for reduced price-lists of larger instruments. D. A. WOODWARD, Baltimore, Md.

THE MOST POPULAR
OF ALL
SEWING MACHINES
is the
LIGHT-RUNNING
NEW HOME
BEST MADE
SIMPLE
STRONG
SWIFT
SURE
HAS NO EQUAL
IS ALWAYS
AND IN ORDER
WILL LAST
A LIFETIME
SURPASSES ALL OTHERS
Johnson, Clark & Co.
30 UNION SQ. NEW YORK
CHICAGO ILL.
ORANGE MASS.
FOR SALE BY



D. S. EWING,

1127 CHESTNUT ST., PHILADELPHIA, PA.

NOTICE.

THE WONDERFUL EURYSCOPES and NEW PORTRAIT LENSES.

Just received, a large invoice of the above Lenses. Those who have not succeeded in getting them, will do well to send in their orders at once.

BENJAMIN FRENCH & Co.,

Boston.



WILSON'S PHOTOGRAPHICS

Shows you how to group and pose children naturally and gives fine examples of work. Read the partial index herein. \$4.

S. G. NIXON, Portrait Artist, 813 Arch Street, Philadelphia, Pa. Solar enlargements finished in crayon, water color, and Indian-ink in true artistic style, and the likeness and expression faithfully preserved. Also small colored and Indian-ink work, etc. Terms moderate.

Osborne's Patent Picturesque Foregrounds and Statuary Pedestals,

FOR PHOTOGRAPHIC COMBINATION PRINTING.

Manufactured by W. D. Osborne, Philadelphia, Pa. The *Osborne Foregrounds* have been in use for some months, and are now a necessity. See two examples in the *Philadelphia Photographer* for January, 1882. The *Osborne Statuary Pedestal* has just been introduced, and supplies a want long felt. It is a neat and harmonious pedestal upon which to print "statuary photographs." Made on paper, can be used right or left, and mailed free on receipt of price, \$1.00 each. Can be used for many different negatives. Full directions for using Mr. Osborne's novelties free to applicants.

SCOVILL MANUFACTURING Co., Trade Agents,

419 & 421 Broome St., New York.

W. IRVING ADAMS, Agent.

Warm weather and yellow paper. If you wish your paper to keep white, use the Peerless Extra Brilliant Pearl.



WILSON'S PHOTOGRAPHICS

DEVOTES 58 pages to instructions in posing and lighting the figure. See advertisements. \$4.

6. 6 6 6 6 6 6 x

A RARE CHANCE TO LEARN SHORT-HAND.—Rowell & Hickcox, the publishers of the *American Short-hand Writer*, have opened the most complete school of short-hand in the United States at Boston, Mass.

For \$1.50 they will send this year's volume of their magazine, containing a full course in phonography, and correct the lesson exercises of all subscribers by mail, free. This offer holds good until January 1st, when the price of subscription is to be advanced to \$2.50. When the fact is known that a full course of instruction taken at their school in Boston costs \$75, the rare chance afforded by this extraordinary offer may be realized. Short-hand clerks, not expert, command a salary of \$75 a month upwards, while the standard prices paid for law reporting is \$10 a day. Why not get up a class in phonography here to learn through this medium? We will head the list ourselves, and receive and forward subscriptions for the *Short-hand Writer*.

DECEMBER 1st, 1881.

PATENTS

We continue to act as Solicitors for Patents, Caveats, Trade Marks, Copyrights, etc., for the United States, Canada, Cuba, England, France, Germany, etc. We have had **thirty-five years' experience**.

Patents obtained through us are noticed in the *SCIENTIFIC AMERICAN*. This large and splendid illustrated weekly paper, \$3.20 a year, shows the Progress of Science, is very interesting, and has an enormous circulation. Address MUNN & CO., Patent Solicitors, Pub's. of *SCIENTIFIC AMERICAN*, 37 PARK ROW, New York. Hand book about Patents free.

ADDRESS WILLIAM McLAUGHLIN, 125 S. First Street, Brooklyn (E. D.), N. Y., Corresponding Secretary of Association Operative Photographers of New York, for operators, printers, and retouchers.

No. 18. VIGNETTE PAPERS, No. 18. WAYMOUTH'S.

The old form of No. 18, Waymouth's Vignette Papers, oval, has been discarded, and a *new pear-shaped* style is now ready in its place. It is a beautiful piece of gradation and prints perfectly. Price \$1.25 per dozen. For sale by all dealers. See advertisement.

No. 18. NOW READY. No. 18.

GINON'S OPAQUE.—As a rule, photographers are familiar with this most convenient article of gallery use, but, doubtless, there are some who still are unacquainted with it. It is just what it claims to be, and so announces on the wrapper of each box: "A dense, non-actinic paint, for stopping out imperfect backgrounds, or defective skies in negatives, for coating the inside of lenses or other brass work, etc." It is an invaluable article, and should have a place in every photographic establishment in the country, whether large or small. A photographer lately remarked to us, "GINON'S OPAQUE is worth its weight in gold." This sounds rather exaggerated, as a cake of the compound is quite large, and of some weight; still it is most valuable, and its place can be filled by no other article now in the market.

That Opaque is very generally used, and that its use is daily growing was proved to us on a recent visit to New York. In the store of SCOVILL MANUFACTURING COMPANY, we noticed a large pile of these neat little packages, and on inquiry were assured that the demand was very large, and steadily increasing.

To those who have not tried opaque, we would say, send fifty cents to your stock-dealer and get a cake. You will wonder how you ever got along without it. Sold by all dealers.

Warm weather and yellow paper. If you wish your paper to keep white, use the Peerless Extra Brilliant Pearl.

A NEW Retoucher, by E. A. Gilbert, Meadville, Pa. Send for circular and price-list.

I got up a model and have let fifteen good photographers try it, and twelve of them have given me an order.

THE PLATINOTYPE PROCESS.—Having disposed of their printing business in New York, Willis & Clements will now devote the whole of their time to manufacturing chemicals for the process, and to instructing licensees in working. They have appointed Thos. H. McCollin, 631 Arch Street, Philadelphia, Sole Trade Agent for the sale of the special materials and apparatus used in the process. Willis & Clements will answer all letters of inquiry concerning the process.

Proprietors of patents, **WILLIS & CLEMENTS,**
631 Arch St., Philadelphia, Pa.
Agent, **THOS. H. MCCOLLIN,**
631 Arch St., Philadelphia, Pa.

NOTE.—On receipt of \$1.75 a small supply of chemicals and paper will be sent to any one desiring to try the process.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

As operator or retoucher in some good gallery. Address Artist, P. O. Box 396, Hartford, Conn.

By a young man of temperate habits as apprentice in a gallery. Has had one year's experience in the business. A member of the Temperance Alliance. Address P. G. Davidson, Carthage, Hancock Co., Ill.

By a young, unmarried man as operator. Has had six years' experience, and can do first-class work. Samples furnished. None but first-class galleries need apply. Address Operator, Box 954, Altoona, Pa.

By an experienced retoucher; can assist in operating, and make himself generally useful. Single, and of temperate habits. Best of reference given. Address, with terms, D. A. B., Box 272, Shamokin, Pa.

By a competent man in a studio where first-class work is appreciated. Operating and retouching a specialty. For reference and samples, address C. W. Holloway, or Rankin & Grinnell, Photographers, Taunton, Mass.

As operator, printer, toner, ferrotyper, or retoucher. Fifteen years' experience. Address L. Smith, 1343 South St., Philadelphia, Pa.

By a first-class retoucher for ink, water-color, crayon, charcoal negative, etc. Proofs on hand. Address Schlickeiser, 378 New York Av., Jersey City, N. J.

J. L. CLARK,
GOLD AND SILVER REFINER,
ASSAYER AND SWEEP-SMELTER,
REMOVED TO
823 Filbert St., Philadelphia, Pa.

RETURNS MADE IN STRICTLY PURE CHEMICALS.

REFERS TO, BY PERMISSION:

- JOHN CARBUTT, Dry Plate Manufacturer, Philada.
- WM. H. RHOADS, Photographer and Artist, Philada.
- GILBERT & BACON, Photographers and Artists, Philada.
- WM. H. CLIFFORD, Photographer and Artist, Philada.



The Improved Photograph Cover.

IT SERVES ALL THE PURPOSES OF AN ALBUM.

It is made with expanding back, so that from six to twenty-four pictures may be inserted in one cover. The pictures are mounted in the usual way, and then strips of linen or strong paper, of the proper width, are pasted on one edge, by which the picture is inserted and held in place in the cover by a paper fastener. For binding together views of your town or city, or portraits of celebrities, they are very neat. The following is a list of sizes and prices, without cards:

For Photographs.	Per doz.	Per hundred.	For Photographs.	Per doz.	Per hundred.
Card Size,	\$1.50	\$10.00	Cabinet Size,	\$2.25	\$13.00
<small>EXTRA HEAVY COVERS.</small>					
5-8 Size,	4.50	33.00	4-4 Size,	6.00	40.00
8-10 " " " " " "	8.00	56.50	11-14 " " " "	9.00	65.00

Special sizes made to order. Samples mailed at dozen prices. *Send for some.*

EDWARD L. WILSON, Photo. Publisher, 912 & 914 Chestnut St., Philada.

THE PHOTOGRAPHER TO HIS PATRONS

Is a neat little leaflet of twelve pages of the size of the four pages below. It tells your patrons what you want them to see on **Photography as an Art; When to Come; How to Come; How to Dress; How to Behave; and about Children, Business, Frames, Copying, Coloring, and Prices.**

"THERE'S MILLIONS IN IT."

PHOTOGRAPHERS OF AMERICA:

In these times of competition we all want something to *stir up business*. It is believed that no means of advertising, half so good, was ever offered to photographers, as that acceptable little leaflet,

"The Photographer to his Patrons."

Its utility and usefulness are proven by the fact that it has been demanded and translated into Spanish and German; that over

1,000,000 copies have been sold,

and that hundreds of photographers have written to the author, testifying to its great value as a positive *business-bringer*.

I take the liberty of sending you a copy, and ask you, *for your own interest*, to read it carefully all through. I have, since its publication, issued two other works of a similar character—*Pretty Faces*, at half the price; and *Something New*, at the same price. But the choice still seems to be for the old favorite, and I am still supplying it continually. The sample herewith is of a lot lately printed; and I desire to call your especial attention to a method which will secure you all the advantages of this work as an

(i)

the expense of hiring a man and team to distribute then in adjoining towns. I shall, undoubtedly, want more when these are gone. I got \$13.50 for the advertisements."

We endeavor to get them up in attractive and elegant style; and in order to protect those who use them in the enjoyment of them, we have *copyrighted* them, and trust no one will attempt their degradation by cheap and badly-made copies of them. We can print them as cheap as any one can for the quality, and have

RECENTLY REDUCED THE PRICES

to the following scale:

500 copies,	\$9 00
1000 "	15 00
3000 "	36 00
5000 "	50 00

Some photographers have had as many as 25,000, using them continually. Please look into the matter, and send on your orders for all seasons.

We supply, free of charge, several beautiful fancy cuts for the covers; but where three of the pages are covered with other matter, the style of the present sample is the neatest. You can have your own choice.

As already said, these leaflets are used all over the country, often by our leading photographers, from some of whom were received the following testimonials.

(iii)

advertisement, and yet cost you little or nothing. *The four pages of the cover are yours, to use for what you please.* You only need the first page for yourself. Get advertisements from your neighbors, at a proportionate figure, for the rest, and your leaflets cost you only the expense of distribution.

Messrs. Albert & Son, Alexandria, La., have seven advertisers, another recently had eight. From six of them he got \$1.75 each, and from two, \$2.25 each; making \$15—the cost of 1000 leaflets. Examine the copy herewith.

Mr. H. C. Norman, Natchez, Miss., who has adopted the same plan, writes, viz.: "As an advertising medium the leaflets have no equal. Two hours secured me seven advertisements, amounting to \$17.50, leaving me \$5.00 balance for express charges; thus securing me 1000 leaflets for nothing. With a little energy any photographer can secure cards enough from his friends to pay for all the leaflets he requires, and he should not be without them. I have not only seen, but felt, the result of using them."

Mr. L. B. Truax, Swanton, Vt., writes, viz.: "The leaflets have been received and prove a decided benefit to me. I consider them the best advertising medium I have yet found. The merchants who advertised on the covers seem to be of the same opinion; one of whom went to

(ii)

KEEP YOUR EYE ON THIS!



TESTIMONIALS:

"Send 5000 in English and 2000 in German."
JNO. A. SCHOLTEN, St. Louis.

"Let me have a lot as soon as printed."—J. F. RYDER, Cleveland, O.

"It works satisfactorily in every way."—A. N. HARDY, Boston. (Mr. Hardy has had 4 or 5 lots.)

"They are the best business-cards a photographer can have."—T. S. ESTABROOKE, N. Y.

EDWARD L. WILSON, *Photo. Publisher,*
912 & 914 Chestnut St., Philada.

(iv)

**HEARN'S
STUDIES IN
ARTISTIC
PRINTING**

—*— BY *—
C. W. HEARN,
Author of "Practical Printer."

SIX FINE CABINET AND PROMENADE PORTRAIT STUDIES.

AMONG OTHER THINGS IT CONTAINS.

Suggestions on the Choice of Albumen Paper—All the Best Silvering Baths, and Methods of treating the same—New Views on the Relation of the Silver Bath to the Time of Floating—The Different Effects Caused by the Time of Floating—How to Tell when Paper is Floated too Long or too Short a Time—Table for Time of Floating Paper under all Circumstances—The Importance of Care in Printing in Varied Ways—The Important Relation Printing from the Negative Bears to the Toning Bath—Fast Printing—Dialogue between "Joe" and a Friend—The Way to Success in Toning Lies in Printing—The Different Effects Caused in Printing by the Preparation of the Silver Bath—The Relation of the Silver Bath to the Printing from the Negative, and from this to the Toning Bath—Acetate of Silver—Success or Failure in Toning Caused by the Strength, Purity, and Alkalinity of the Silver Bath—Harmony, its Importance in Photography—Why its Neglect Causes such Disastrous Results—The Beautiful in Toning, and How to Obtain it—A Few Hints About Managing Toning Baths—Formulae for Printing "Our Studies," as Given under Respective Headings—Impurities of Toning Baths—How it Affects the Toning, and How to Remedy such Baths—Fixing and Washing—Brilliance of the Finished Picture Attained by the Final Washing—Various and Valuable Hints about Finishing the Photographs, etc., etc.

Mailed to any address on receipt of price, \$3.50, by any stock-dealer, or by

EDWARD L. WILSON, Photo. Publisher, 912 & 914 Chestnut St., Philada.

SOLD BY ALL DEALERS. ASK TO SEE IT.

**SINGHI'S
VIGNETTING ATTACHMENT
FOR PRINTING FRAMES.**

To be used with WAYMOUTH'S VIGNETTE PAPERS.

(Patent Applied for.)

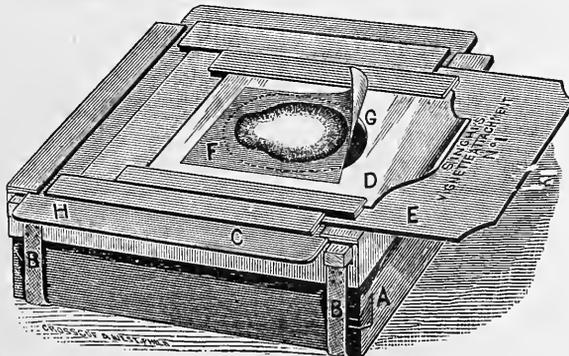
J. F. SINGHI, Inventor.

The best arrangement for adjusting these best of vignetting appliances in the world.

5x8 size now ready.

Price, by mail, \$1.50.

See description in this Magazine, June, 1881, or in *Wilson's Photographics*.



FOR SALE BY ALL DEALERS.

DEALERS' DIRECTORY.

The following houses are to be recommended as the best for photographers in their localities.

S. T. BLESSING, New Orleans, La.	Douglass, Thompson & Co. "Great Central," Chicago, - - - Ill.	JAMES H. SMITH, Quincy, Ill.
H. A. HYATT, Mound City Photo. Stock House, 411 North Fourth St., St. Louis, Mo.	D. J. RYAN, Savannah, Ga.	J. C. SOMERVILLE, St. Louis, Mo.
SCOVILL MANF'G CO., 419 & 421 Broome St., New York.	D. TUCKER & CO., Buffalo, N. Y.	BLESSING & BRO., Galveston, Texas.
C. H. CODMAN & CO. Boston, Mass.	WILSON, HOOD & CO., 825 Arch Street, Philadelphia, Pa.	B. FRENCH & CO. Boston, Mass.
WM. J. HAZENSTAB, 406 Market St., St. Louis, Mo.	EDWARD L. WILSON, Photo. Publisher, LANTERN SLIDES, 912 & 914 Chestnut St., Philadelphia.	THEO. SCHUMANN, Atlanta, Ga.
OSCAR FOSS, San Francisco, Cal.	G. B O D E, Milwaukee, Wisconsin.	W. D. GATCHEL, Cincinnati, Ohio.

GET THE BEST!

CRAMER & NORDEN'S
ST. LOUIS
EXTRA-RAPID DRY PLATES.

WARRANTED PERFECT,
 With Latest Formulas and Complete Directions for Use.

FOR SALE BY

G. GENNERT, 105 William St., New York, Agent for the Eastern States.	MULLETT BROS., Kansas City, Mo.
DOUGLASS, THOMPSON & CO., Chicago.	H. A. HYATT, St. Louis.
N. C. THAYER & CO., Chicago.	WM. J. HAZENSTAB, St. Louis.
HIRAM J. THOMPSON, Chicago.	JAS. C. SOMERVILLE, St. Louis.
C. J. RICE, Chicago.	H. LIEBER & CO., Indianapolis.
W. D. GATCHEL, Cincinnati.	JAS. H. SMITH, Quincy, Ills.
P. SMITH & CO., Cincinnati and Columbus, O. [ville, Ky.	G. MOSES, New Orleans.
W. D. GATCHEL & CO., Louis-	S. T. BLESSING, New Orleans.
J. V. ESCOTT & SONS, Louisville.	ZIMMERMAN BROS., St. Paul.
	GUSTAVUS BODE, Milwaukee.

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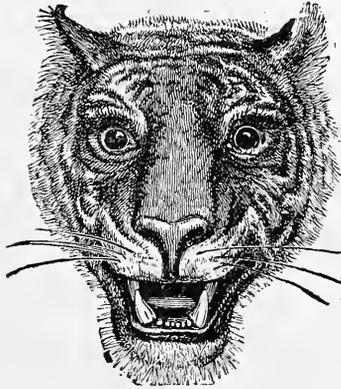
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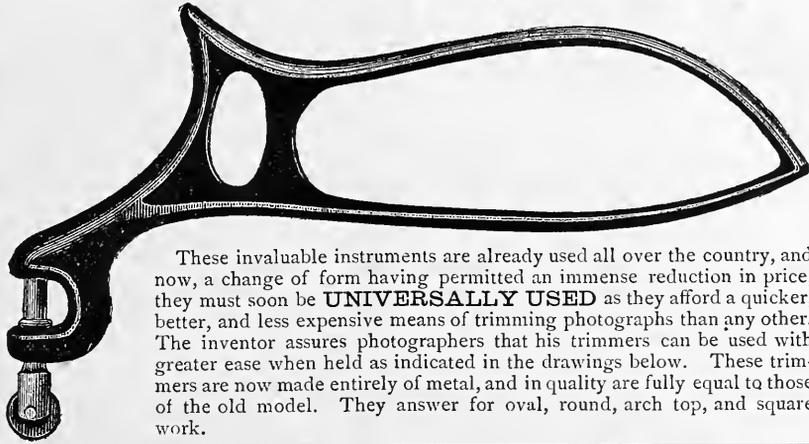
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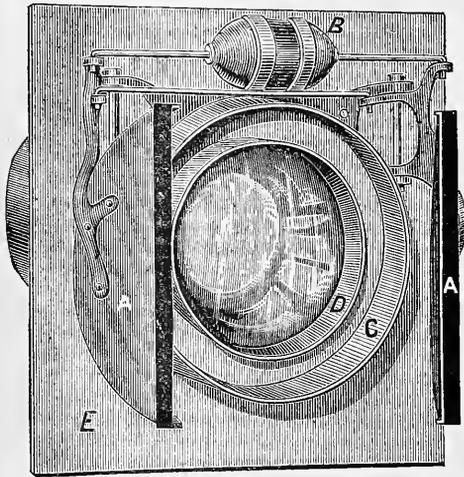
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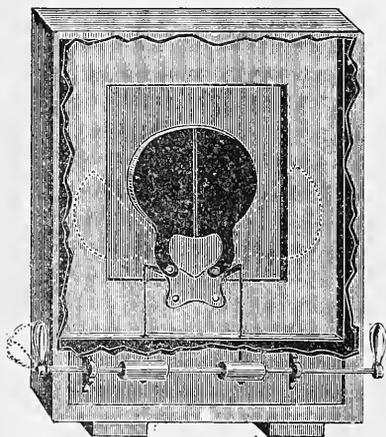
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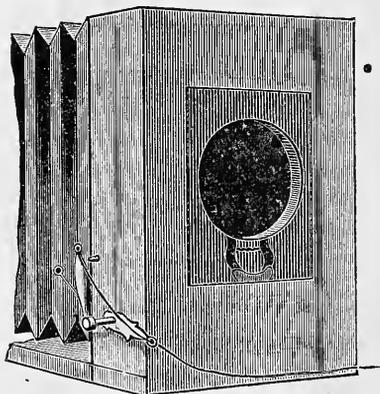
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SUMMARY OF CONTENTS.

	PAGE		PAGE
Our Picture,	65	Proceedings of Societies,	74
Echoes from the Orient. By EDWARD L. WILSON,	65	Answers to Questions to the Craft,	83
A New Book,	69	German Correspondence. By DR. H. W. VOGEL,	86
The Frilling of Gelatine Plates,	69	French Correspondence. By LEON VIDAL,	87
Gelatine Lantern Slides by Reduction in the Camera. By SAMUEL M. FOX,	70	News from Egypt,	90
A Hint on Tourists' Cameras. By INQUIRER,	72	Pertaining to the P. A. of A. By JOSHUA SMITH,	90
How to put Collodion Together. By O. PIERRE HAVENS,	72	Miscellaneous,	91
Advice to a Beginner. By JOHN C. BROWNE,	73	Reports of the U. S. Commissioners,	92
		Editor's Table,	94

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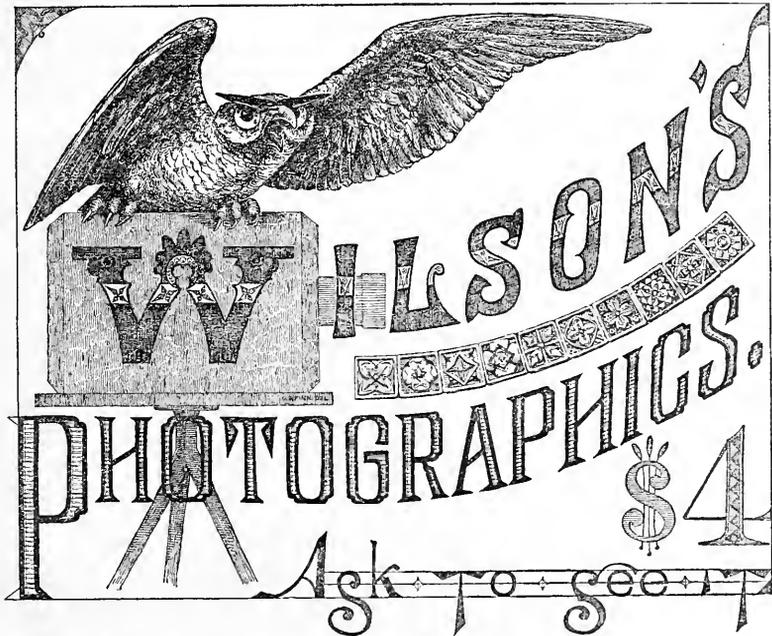
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It is printed on fine white paper, made especially for it, and sold at the low price of

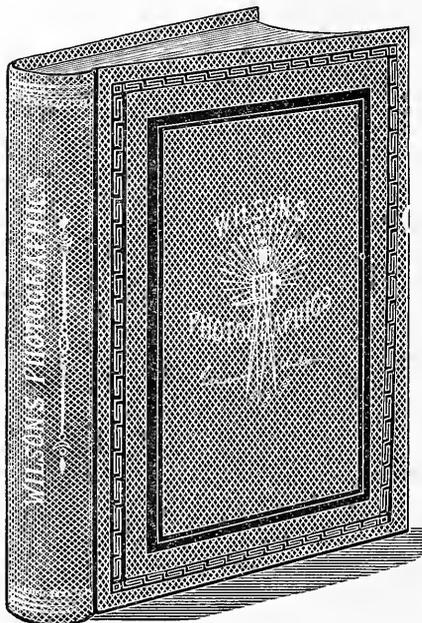
\$4.00 POST-PAID \$4.00.

For the beginner, for the amateur, for the photographic worker, it is believed to be most complete. No live photographer should fail to get it soon, before his neighbor is ahead.

PARTIAL INDEX.

This is added in order to give the buyer a good idea of what he may get for his money. It will be seen, also, that *Photographics* is not a book for a single reading only, but a thorough encyclopedia of practical photographic information that will serve for all time. There is scarcely a thing you are likely to want in your practice that you may not find in its pages. There is only room for a condensed index. The whole covers six pages of *Photographics*.

Accessories and Light.
 Acidifying the Prints.
 Aerial Perspective.
 Albumen for Phototypes, Filtering the.
 Loss of, from the Paper.
 Paper, Defects and Dryness of Substratum for Glass.
 Alkaline Sulphides, Test for.
 Alum, Treatment of the Prints with.
 Angle of View possible with a Lens.
 Angular Composition.
 Aniline Blue for Pure Whites in Prints.
 Apparatus, Dry-Plate for Landscapes.
 Arrangement of Drapery, Raphael's.
 Art among Photographers, and Art Rules.
 Principles applied to Photog.
 Artificial Light for Solar Print-
 "Artotypes." [ing].
 Atmospheric Effect.
 Backgrounds.
 Frames for.
 How to Make and Paint.
 Bath, Boiling down the.
 Decolorizing the Printing.
 Fusing the.
 Rectifying the.
 Removing Albumen from the.
 Testing the Strength of the.
 The Fixing.
 The Nitrate.
 Troubles.
 Black and White Negatives.
 Blistering of Prints.
 Blueness of the Film.
 Bold Prints from Flat Negatives.
 Breadth of Effect.
 Brilliancy in a Photograph.
 Bromo-Gelatin Emulsion Work.
 Alkaline Developer for.
 Calculations, Table for.
 Carbutt's Cruet for.
 Chemicals for.
 Development of.
 Drying the Plates.
 Exposure of.
 Fogging of.
 Frilling of.
 Intensifying.
 Printing.
 Rapidity of.
 Reducing.
 Retouching and Varnishing.
 Spreading the Gelatin.
 Strengthening.
 Washing.
 Burnishing the Prints.
 Camera, Care of the.
 How to tell a good.



Card-Board, Cockling of the.
 Cheapness.
 Chemicals and Solutions, The.
 Chemistry of Out-Door Formulæ.
 Chiaro-Oscuro, or Light and Shade.
 Chloride of Gold, Saving.
 of Silver, into a Metallic State.
 Clouds and Sky, The.
 in Out-Door Views.
 Printing in.
 Collodion Bromized.
 Changes.
 Double Iodized.
 for Hot Weather.
 for Interiors.
 Intense.
 Out-Door, Water In.
 Troubles.
 Collodion Transfers.
 Coloring.
 Gelatin Paper for.
 Iodizers for.
 Printing.
 Collodionizing the Plate.
 Color, Good, Printing for Negatives.
 Composition, Angular.
 Circular.
 Pyramidal.
 Concluding Confab.
 Contraction and Expansion of
 Paper.

Contrasts, Violent.
 Correctness and Comparison.
 Curtains for the Studio.
 Dark-Room, The.
 Dark-Tent, The.
 Defective Toning of Prints.
 Defects and Dryness of Albumen Paper.
 Dense Negatives, Printing.
 Developer, The Iron.
 The Iron and Ammonia.
 Development, The.
 Best Rule for the.
 Diaphragm.
 Use of the. [Printing].
 "Doctoring" Negatives for
 Drapery, Raphael's arrangement of.
 Drying-Box for Phototype
 Plates.
 Cupboard for Emulsion
 Plates. [Plates].
 Cupboard for Phototype
 Oven for Phototype Plates.
 Room, The.
 the Paper.
 the Prints.
 Vogel's Collodion Emulsion.
 Education of Photographers.
 Effect, Breadth of.
 Effects, Brilliant.
 of Light.
 Encaustic Paste for Prints.
 Enlargements and Lantern Slides.
 Enlarging Carte-de-Visite
 Negatives.
 Exposure for Phototype Plates.
 for Platinotypes.
 of Bromo-Gelatin Plates.
 Shortening.
 Time of.
 Eye, Education of the.
 of the Sitter.
 Faces, The Study of.
 Fading of Prints.
 Ferrous-Oxalate Developer, The.
 Field Work.
 Figures in.
 Foreground Study in.
 Film, Blueness of the.
 Weakness of the.
 Filtering Albumen for Phototypes.
 Gelatin for Phototypes.
 Finishing and Mounting.
 Fixing.
 Flat Negatives, Printing.
 Flatness and Want of Contrast.
 Fogging.
 Formation of Network on the Film.
 Fumes, Poisonous.
 Fuming the Paper.
 Fusing the Bath.
 Glace Prints.
 Glass, Preparation of the.
 Studio, The.

Gold Toning-Bath, Treatment of the.
Gun-Cotton, The.
Hands, The.
Stains on the.
Harmony.
Horizontal Lines.
Husnik's Process for Phototypes.
Intensifier, The.
Ammonia and Mercury.
Bichloride of Mercury.
Ferrid Cyanide.
Iron and Acid.
Perchloride of Iron.
Permanganate of Potash.
Pyrogallic Acid.
Schlippe's Salts.
Silver and Acid.
Interior Work.
Kaolin, Rectifying Printing-Bath with.
Landscape Apparatus.
Photography.
Views, Formula for.
Lantern Slides and Enlargements.
Leaking of the Glass Studio.
Lens or Objective, The.
Lenses, Angle of View Possible with.
Choice of.
Forms of.
Light and Accessories, and Shade, or Chiaro-Oscuro. Reflected.
Lighting, Rembrandt's Style of.
"Lightning" Processes.
Linen, Printing on.
Lubricating the Prints.
Managing the Model.
Manipulations, The.
Manipulatory Miseries.
Marbled Appearance of the Paper.
Red Lines on Prints.
Mealiness in Prints.
Measles or Mottles on Prints.
Measuring Metrical.
Medallion Printing.
"Megatypes."
Metallic Spots in Prints.
Model, Study the.
Mounting and Finishing.
Paste.
without Cockling.
Nature, Study.
Negative, A Generally Wretched.
Negatives, Black and White.
Defects in.
"Doctoring" for Printing.
for Solar Printing.
Preserving of.
Printing Dense.
Printing Weak.
Removing Stains from.
Network, Formation on the Film of.
Objective or Lens, The.
Objects, Distances of.
Only Lines in Negatives.
Opaque for Negatives, Gihon's.
Outside Photography.
Chemistry of.
Work, Art Principles in.
Work, Clouds in.
Work, Exposure.
Work, Keeping Plates for.
Work, Tent for.
Over-Exposure of Bromo-Gelatin Plates.
Paper, Cockling of the
Drying the.
Expansion and Contraction of.

Fuming the.
Keeping White the.
Marbled Appearance of the.
Sensitizing the.
Woolliness of the.
Paste for Mounting.
Patches and Stains on Prints, Yellow.
Perplexities, Printing.
Perspective.
Photography, Landscape.
Phototypes, Basis for.
Exposure of the Negatives for.
Husnik's Substratum for the Plates for.
Inking the Films for Printing.
Pinholes.
Plain Paper, Printing on.
Platinotypes, Sensitizing the Paper for.
Cleaning and Washing.
Development of.
Exposure of the Paper.
Poisons.
Porcelain, Printing on.
Posing, Suggestions about.
Preserving Negatives.
Printing, Art in.
by the Solar Camera.
Dense Negatives.
Development Process of.
Flat Negatives.
Medallions.
on Albumen Paper.
on Various Surfaces.
Stereoscopic Views.
Temperature in.
Vignettes.
Weak Negatives.
Printing-Bath, The.
Decolorizing the.
Strengthening the.
Printing-Room, The.
Prints, Acidifying the.
Blistering of the
Burnishing the.
Defectively Toned.
Drying the.
Encaustic Paste for.
Fading of the
Fixing.
Glaze.
Imperfect Washing of the.
Lubricating.
Measled or Mottled.
Metallic Spots in.
Refuse to Tone.
"Spotting" the.
Touching Out.
Treatment with Alum of the
Trimming.
Warm-Water Washing of.
Washing in "Lead Water."
Washing the.
With Red Marbled Lines.
Yellowness of the.
Productions of Photography, The.
Public, Relation of the Photographer to the
Pure Whites in Prints.
Quick-Acting Processes.
Red Patches on Prints.
Reducing Process for Solar Negatives.
Reinforcing the Negatives.
Rembrandt's Style of Lighting.
Removing Stains from Negatives.
Retouching Bromo-Gelatin Plates.
Process, Solar Negative.
the Negatives.

Reversing the Negative, Apparatus
Robinson's Print Trimmer. [for.
Screens and Curtains.
Sensitizing Paper for Platinotypes.
the Paper.
the Plate.
Shortening the Exposure.
Silver Iodide, to make.
Saving, Method of.
Solutions, Volumetric Test of.
Sky and Clouds, The.
Softness in Lighting.
Solar Camera Printing.
By Artificial Light.
Camera Printing Negatives, retouching.
Negative Reducing Process.
Retouching Process.
Stains from Negatives, Removing.
on the Hands.
Stereoscopic Views, Printing.
Negatives Preparing.
"Stop," Use of the.
Streaks and Stains in Negatives.
Strengthening Gelatin Emulsion
Plates.
the Printing-Bath.
Studio, the Glass.
Construction of the.
Curtains.
How to Build a.
Leaking of the Glass.
with Curved Light.
Working Plans for Construction.
Subject, Choice of.
Treatment of.
Table for Converting Centigrade
into Fahrenheit.
for Converting Cubic Centimetres
into Ounces, etc.
for Converting Metrical to Troy
Millimetres into Inches, etc.
Temperature in Printing.
Tent, The Dark.
Testing of Silver Solutions.
Toning the Prints.
Bath, Treatment of the Gold.
Defective.
Solutions.
Touching out Prints.
Transfers, Collodion, Iodizers for.
Coloring.
Developer for.
Fixing.
Gelatin Paper for.
Printing.
Transparencies, Bromo-Gelatin.
for the Magic Lantern, To make.
Treatment of the Subject.
Use of the Diaphragm.
Varnishes and Varnishing.
Ventilation of the Dark-Room.
Views of Interiors.
Collodion for.
Exposure for.
Figures in.
Light for.
Selection of.
Vignette Printing.
Paper, Waymouth's.
Printing Attachment, Singhi's.
Vogel's Collodion Emulsion.
Warm Water for Washing Prints
Wash-Room for the Prints.
Wastes and their Worth.
Waymouth's Vignette Papers, Use
of.
Weakness of the Film.
Woolliness of the Paper Surface.
Yellowness of the Prints.

(OVER.)

What is said by the Readers of *Photographics*:

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FOR AMATEURS.



Old Style Equipment.

The increasing interest in Dry-Plate Photography, and the impetus given by it to the work of the amateur, has created a demand for special apparatus which is light, compact, and easily carried about. We are, as usual, up to the requirements of the times. The Cameras and Apparatus of our make are known to be in every respect the most accurate and of the lightest weight of any in the world.

We beg to call your attention to the following Price Lists of



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Ne Plus Ultra Apparatus Outfits.

All Articles of which are Warranted Accurate in every Respect.

OUTFIT A, complete, price \$10, comprises a VIEW CAMERA, black, with rubber bellows and rigid platform, for making 4 x 5 inch Pictures; 1 Patent Double Dry-Plate Holder; 1 Tripod Camera Stand; 1 "Waterbury" Achromatic Nickel-Plated Lens with Standard English Flange; 1 Carrying Case.

OUTFIT B, complete, price \$12, comprises a VIEW CAMERA for taking 5 x 8 inch Pictures. Same style as A Camera. 1 Patent Double Dry-Plate Holder; 1 Tripod Camera Stand; 1 "Waterbury" Achromatic Nickel-Plated Lens with Standard English Flange; 1 Carrying Case.

OUTFIT C, complete, price \$18.50, comprises a VIEW CAMERA for making 5 x 8 inch Pictures. This Camera is constructed so as to make either a CABINET PICTURE on the full size of the plate (5 x 8 inch), or, by substituting the extra front (supplied with the outfit) and using the pair of lenses of shorter focus, it is admirably adapted for taking STEREOSCOPIC NEGATIVES, also by the same arrangement two small pictures, 4 x 5 inches each, of dissimilar objects can be made on the one plate. Included in this outfit are also 1 Patent Double Dry-Plate Holder; 1 large "Waterbury" Achromatic Nickel-Plated Lens with Standard English Flange; 1 pair "Waterbury" Achromatic Nickel-Plated Matched Stereoscopic Lenses; 1 Tripod Camera Stand; 1 Carrying Case.

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This apparatus is manufactured in New York City, under our immediate personal supervision; and, as we employ only highly skilled workmen, and use nothing but the choicest selected materials, we do not hesitate to assert that the products of our factory are unequalled in durability, excellence of workmanship, and style of finish. This fact is now freely conceded not only in this country but throughout Great Britain, France, Germany, Australia, and South America.

Quality being considered, our prices are moderate, as the same grade of apparatus cannot be supplied for less price.

OUTFIT No. 201, complete, price \$26.50, consists of a MAHOGANY POLISHED CAMERA for taking pictures 4 x 4 inches, with *Folding Bellows Body*, single swing, hinged bed and brass guides. It has a shifting front for adjusting the sky and foreground, also 1 Patent Double Dry-Plate Holder; 1 Taylor Folding Tripod; 1 Canvas Case to contain Camera and Holder.

OUTFIT No. 202, complete, price \$27.00, consists of a FOLDING MAHOGANY CAMERA for taking 4 x 5 pictures, same style as 201 Camera; also, 1 Patent Double Dry-Plate Holder; 1 Canvas Carrying Case; 1 Taylor Folding Tripod.

OUTFIT No. 203, complete, price \$41.00, consists of a FOLDING MAHOGANY CAMERA, fully described in American Optical Company's Catalogue, and well known as the '76 Box. It is adapted for taking 5 x 8 pictures, and also for taking stereoscopic views, together with 1 Patent Double Dry-Plate Holder; 1 Canvas Carrying Case; 1 Taylor Folding Tripod.

Cameras in Outfits 202 and 203 have shifting fronts, and are equal in style and finish to the best of the American Optical Co.'s make.

OUR NEW PATENTED DRY-PLATE HOLDERS

are the best made, and answer the demand in dry-plate work for something that will exclude all light. Prices of *EXTRA Patent Double Dry-Plate Holders* are as follows:

4 x 4 Holders, for two Plates,	. . . .	each, \$3.00
4 x 5 " " "	. . . .	" 3.00
5 x 8 " " "	. . . .	" 4.00

For a choice of Lenses suitable to these Outfits, see next page.

MORRISON'S Wide-Angle View Lenses.

PATENTED MAY 21st, 1872.

These Lenses are absolutely rectilinear; they embrace an angle of fully 100 degrees, and are the most rapid *wide-angle* lenses made. We recommend them for use with the foregoing outfits.

Price of Morrison's Wide-Angle Lenses.

No. 1, $\frac{3}{4}$ Diam. of Lens,	4 x 4 in. Plates,	3 in. Equiv. focus.	Price each,	. \$25.00
No. 2, 1 " " "	4 x 5 " " "	$3\frac{1}{2}$ " " "	" " "	. 25.00
No. 3, 1 " " "	$4\frac{1}{2}$ x $7\frac{1}{2}$ " " "	$4\frac{1}{4}$ " " "	" " "	. 25.00
No. 4, 1 " " "	5 x 8 " " "	$5\frac{1}{4}$ " " "	" " "	. 25.00

MORRISON'S Rapid Stereoscopic Lenses, FOR INSTANTANEOUS VIEWS OR LAWN GROUPS.

They are entirely different, in many particulars, from any other lenses in the market. They are 6 inch focus and $1\frac{1}{4}$ inches in diameter, and are, of course, made in matched pairs, with a set of diaphragms also for 5 x 8 views.

A novel and ingenious instantaneous drop is also provided, passing through the brass work, on the same principle as a central stop, by which *absolutely instantaneous views* may be made, sharp all over to the very edges, without being diaphragmed down.

PRICE, EACH, \$40.00.

" P E E R L E S S "

Quick-Acting Stereoscopic Lenses FOR PORTRAITURE OR VIEWS.

We can also furnish the following, either single or in pairs:

These lenses are especially designed for Stereoscopic Photography, and are so constructed that they will work well for interiors or exteriors.

They are particularly adapted for instantaneous work.

Diameter of Lenses, $1\frac{1}{2}$ inches; focal length, $3\frac{1}{2}$ inches.

By removing the back lens and substituting the front combination, a focal length of $5\frac{1}{2}$ inches is obtained.

They are supplied with six Waterhouse Diaphragms in morocco case.

PRICE, PER PAIR, \$25.00.

Imitation Dallmeyer Lenses

FOR LANDSCAPES.

PRICE, PER PAIR, \$17.00.

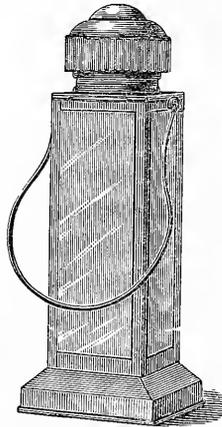
Undoubtedly the best Photo. Lenses yet produced. Amateurs will find these Lenses perfectly adapted to their use.

[See next page.]

THE SCOVILL DRY-PLATE LANTERN

PRICE, \$1.50 EACH.

Designed especially for use by the photographer or amateur in the dark-room, when developing plates and putting them in the plate holders. Guaranteed, when lighted and closed up, to throw out nothing but ruby rays. It has sixty-three square inches of glass, through which enough light shines to enable the occupant of the dark-room to watch the development of the largest size dry-plates made, and at the same time to see the chemicals and everything used in manipulation. The illustration here presented conveys a good idea of the lantern when closed.



In height the Scovill Lantern is a trifle over twelve inches, and is four and a half inches square. Each corner is protected by a strip of metal, which acts as a double safeguard. It not only prevents white light from the inside stealing out there, but it also keeps the four panes of ruby glass from any ordinary risk of breakage. For the latter reason the Scovill Dry-Plate Lantern is a great improvement over lamps with ruby chimneys, which, being unguarded, are so easily cracked or broken, and such a trouble to replace. In point of safety this lantern is infinitely to be preferred to a lamp of any style. By patented devices the top vent and the lower draft holes are so constructed that no white rays can escape through them, and thus the lantern is perfected for use in the dark-room.

SOME POINTS ABOUT THE NEW LANTERN.

It is readily extinguished.
It utilizes the entire wick.
It is not liable to crack the glasses.
It requires less than ordinary care to keep clean.
It is simple and easily understood.
It is not liable to get out of order.
It wants no skill, care, or attention in use.

It requires only to be kept in oil.
It gives at all times a symmetrical flame of maximum size.
It maintains a full and brilliant flame as long as the oil lasts.
It is easy to wick.
It is conveniently lighted.

For sale by Photographic Stock-Dealers, and the

SCOVILL MANUFACTURING CO.,

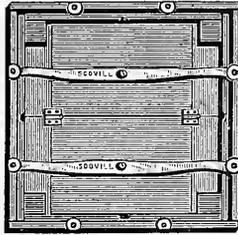
W. IRVING ADAMS, AGENT.

419 & 421 Broome Street, New York.

December 1, 1881.

ATWOOD'S PATENT REVERSIBLE

PRINTING



FRAME.

This Frame is square, and just as it is shown in the accompanying illustration. It is made with double corners, and in utility combines the action of the regular and the lengthwise Printing Frames. The back also is square, with small blocks cut out to fit the corners, thus allowing the back to be placed upon the negative so that the springs and hinges will extend either lengthwise or crosswise of the subject. The advantage of this action will easily be perceived.

Suppose the negative of a standing figure to have been placed in the Atwood Frame and the back put in with the springs parallel to the length of the subject. Either half of the backboard can be opened and thrown over on the other, in this manner allowing such an examination of the print as to show a view from the head to the foot.

Again, in printing from a group negative the back of the Atwood Frame can be placed to open crosswise of the negative, thus giving an opportunity when examining the print of seeing all the faces.

In printing a landscape where cloud negatives are used, and the back has been set in the manner just described, it is possible to contrast the sky with the other features of the view on the print.

There is no reason why prints from two 5 x 8 negatives of different subjects may not be made at one time in an 8 x 10 Atwood Frame. Other good uses will be apparent, and we need not enumerate them. The back can be made to open two-thirds instead of at the centre where so desired and ordered.

PRICE LIST

ATWOOD PATENT REVERSIBLE PRINTING FRAMES.

Size for 1-2 negatives, each,	\$0 75
" 4 x 4 " " 	90
" 8 x 10 " " 	1 20
" 10 x 12 " " 	1 60
" 11 x 14 " " 	2 75
" 13 x 16 " " 	3 50

Supplied by Photographic Stock-Dealers, and

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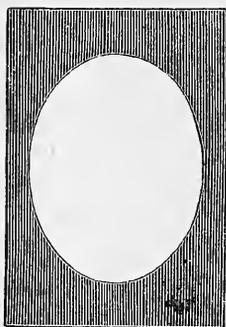
GIHON'S OPAQUE

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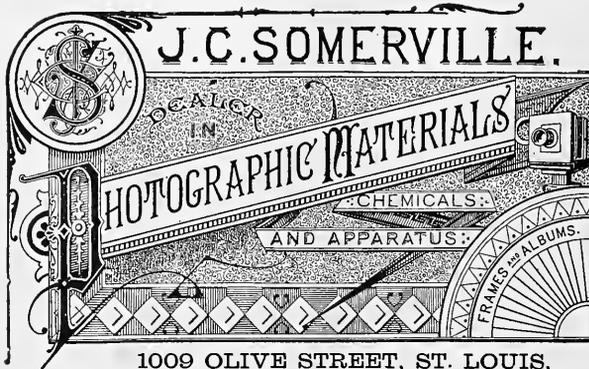
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T H E

Philadelphia Photographer.

EDITED BY EDWARD L. WILSON.

Vol. XIX.

MARCH, 1882.

No. 219.

OUR PICTURE.

So much has been said and written on the subject of photo-statuary, that many of our readers will no doubt be glad of the opportunity of examining and studying the illustration we place before them this month. As portraits, this class of picture (photo-statuary, or statuary vivant, as it might aptly be termed,) will never become very popular. On the other hand, as a fancy picture, or a photo-art gem, they will be most highly prized. Children, of course, are the subjects best adapted for statuesque posing. Their satiny skin and plump, well-rounded limbs, with the addition of a very little soft drapery, make a most excellent marble-like effect. Then, too, the little ones are graceful in nearly any natural attitude, and, therefore, to pose them is less the work of the artist than the inclination of the child.

The picture at present before us is made from a collection of samples, sent for the purpose, by Mr. J. A. Scholten, of St. Louis, Mo., one of the leading lights in photography in the Southwest. We have no doubt that Mr. Scholten's example will be largely followed in using this style of posing for children's pictures. Few or no accessories are required, and no special process need be followed. A common white pedestal and a plain black background are generally all-sufficient, or, where the latter is not conveniently at hand, the film can

be removed from the background before varnishing the negative. This course, while being a little more troublesome, is certain of giving a pure, solid, black background. To those who have not tried "photo-statuary," we would recommend it. It is sure to be the means of an increase in custom, especially among the little folks, for every mother likes to see the beauties of her darlings displayed in the most attractive manner, and what *could* be prettier or more charming than a picture in this style?

We tender our thanks to Mr. Scholten for these piquant studies, and we believe our readers will join us heartily in the same.

ECHOES FROM THE ORIENT.

I AM on the river Nile, Egypt, near the city of Osyoot, and it is January 18th, 1882. Just five weeks ago I sailed from Philadelphia. I have been whirling around so since my departure that I have had no time to sit down, quietly and alone, as I am now seated in my state-room on the little Nile steamer, "Beni Souéff," and write to the readers of my magazine. I have come away from them without asking a single "by your leave," for I believe they have trusted me these many long years to do what I thought best for their best good, and I believe what I am doing now in the way of recuperating health, if in nothing else, will better fit me for usefulness and good service to those who

are with me in advancing the interests of our art.

"Did you, then, carry a camera and some emulsion plates with you?" I hear some one or many more gravely ask. Oh! yes, *I did*; and while I write, in order to give you a goodly share in the experience I shall have, or have had, I am seated upon a case full of emulsion plates, and hold a negative box upon my knees as a writing-desk, and if the jiggle of this tiny steamer doth not disturb my brain, I will give some account of myself. I will not detail the horrors of a winter passage across the Atlantic or more than mention my Christmas day in St. George's Channel, my desperation in a London fog, my cold chill in Paris, or even attempt to describe the fifty-hours' ride through grandly picturesque country in France and in Italy, along the Adriatic to Brindisi. I may tell you of these latter if I have time to get a chance at them with my camera on the return route.

My objective point was *Egypt*, in order to complete my journey of 1873, which I broke at Naples, because of requirements at home, and here I am. I left Brindisi after an unhappy New Year's day (on account of the dirt and beggars there), in the fine steamer "Bangalore," Captain Fraser, on Monday, January 2d, 1882, at 4 A. M. Our sail down the Mediterranean was a remarkable one. It was clear and warm in the daytime with a smooth sea, and the moon at night was glorious. It reminded me, as to temperature, of a summer sail down the Hudson. Italy was in sight nearly all day Monday. Tuesday we were in sight of the Ionian Islands, and then came Greece with the snow-capped peak of Mount St. Elias constantly in sight. Following this came Crete, and then the third day we were out of sight of land.

Early Thursday morning we were at Alexandria, Egypt! And what shall I tell you of this strange, strange place?

When I first visited Dublin, in Ireland, I thought it was the greatest *circus* I ever saw. That conceit was taken out of me, however, when I arrived in Naples, early one September morning. But none of these are comparable with Alexandria. It takes the palm, and it *thrives* here, too, and no joke.

After just seventy-two hours of delightful sailing down the Mediterranean, from Brindisi, we arrived at the port of Alexandria, and were soon after well anchored off the quay. No sooner was this accomplished than we were boarded by a motley lot of Arabs, who assured us that our residence on the "Bangalore" must end, and that we must employ one of the clumsy scows offered us to convey us to the shore. We were only too willing to have our satchels seized by some *one* Arab and conveyed to his craft, for amid such confusion one could not choose—he must calmly and thankfully submit to be chosen.

As we pushed off from the steamer and neared the quay, the scene was most picturesque. The sun was rising in a glory of color which seemed to intensify the brilliancy of the red fezzes of the Arabs, and the air was delightfully soft and lovely. We "passed through" the customs quickly, no trouble being given, and were driven to a hotel. We did not long remain there, for the grand galleries of pictures about us extended on all sides, and we must immediately proceed to enjoy them.

At once, then, into the streets. If you come here, and Mustapha Ali is your dragoman, or his great, white-bearded brother, Mohammed (who is a little more austere because he was once a visitor to Mecca), and faces you in your carriage, then your enjoyment will be full, for my companion and I had them both, and now speak from experience.

The curious and the queer now met us on all sides, and we wished that our necks might be favored with the oscillating power of the genuine owl-neck. Here were caravans of camels loaded with sugar-cane and straw, grass, stone, and wood, and Arabs, donkeys, and drivers by the thousand—some for the service of the traveller in lieu of well-paying street cars, others serving as beasts of burden, and doing the work of camels in a small way. Some of the streets are so narrow that a carriage can scarcely get through them, and all of them are continually crowded with a people always busy and always in a hurry. Here and there tall palms wave their stately branches as though urging you to keep

cool, and long avenues of acacia trees give welcome shade, for although it is now mid-winter here, the sun is hot, and at noontide the thermometer reaches 75°. Pompey's pillar seduces us into a dusty ride and a clamber up a steep hill that we may witness the process of destruction through which it is passing by means of the merciless vandal, and the less merciful elements, and to inveigle us into a nest of backsheesh beggars, who draw enough pieces of the "pillar" from their vile costumes to erect a column even greater, had they the ability to do it. Only a reciprocity of the courtesies drives off this crew. You must *also* beg backsheesh, and put all the pleading in your nature into the process, too, if you would be rid of them, and even then success is not certain.

In among the bazaars next, and we find them busy enough. They are all open to the street, for it is never cold, and no stoves are used here. The polite merchant sits squatted in the centre of his warehouse, and without arising can reach behind him, or on either side, and bring to the notice of the would-be patron almost the entire stock in trade should it be needful. A *purchase* is a long operation. I have often seen the thing begun, but have never had time to watch a transaction from beginning to end. Much parleying, and exorbitant demand and beating down, is part of the formula, and sometimes a second, and even a third day is required to carry out the whole programme. Now we see the coppersmiths, and the shoemakers, and the tailors, and the sugar-cane sellers, and the dealers in all sorts of merchandise, sitting like pashas in their booths awaiting trade, or making up their wares to order. Men with great skins filled with water, resting on their shoulders, come along and sell to the thirsty. Here and there a tiny garden is seen with date-palms, banana trees, cactus plants of immense size, and century plants ditto, and help make up the variety of the grand show. The assortment is increased by a frequent funeral procession, the body being carried on a bier by two or four stalwarts, and accompanied by weird mourners whose howling is terrible. Once we saw a circus parade, but it could not be compared with the show

to be seen on every street. Indeed, the circus business has no chance here whatever. Then comes a long, four-wheeled vehicle loaded with women, who sit without seats, clothed in dark blue. They are paid by the government to go to the Mussulman cemetery to mourn for the dead of the poor, who cannot afford to hire their mourning, and who are too busy to do it for themselves. *Busy* did I say? Yes, *busy*, for the Arab is not lazy. He trots along as easily as he walks, with the same quick step that the tiny donkeys have. This is acquired, I suppose, by the method of the donkey-driver, which is to trot on behind the donkey in order to urge him on. Donkey-driving is the occupation of the males. The women carry even greater loads than the donkey (and his driver) upon their heads. I have seen women bring along a coop full of chickens alive, two slaughtered calves, a bushel of oranges on a tray, a fourth of a cord of wood, fully a hundred-weight of camel droppings made into cakes and sold for fuel, one or the other upon their heads, to say nothing of the immense loads of bread and fruit and pumpkin-seeds (a dainty dish here), and licorice-water, and rice, and sugar-cane, and dates, and cauliflower, and gingerbread, one or the other, upon their heads, and stand up erect under it like statues. And splendid figures they are, too, some of them. Their faces are invariably veiled to the eyes, closely, the veils being held by a wood or metal nose-piece, which gives them a very comical appearance. This is most frequently an advantage, for often their faces grow ugly early in life, but their eyes are always bright and snappy. The prevailing fashion of their dress I have been unable to discover. Blue gowns, reaching over the head and down to below the knees, are most worn, but often they are varied by any display of color, plaid and stripe, whichever happens to come along and for which a price can be agreed upon at the bazaar. The dresses are short; the ankles often bare, with gold and silver bracelets about them, and higher up are pantalettes, decorated with an attempt at embroidery, and above a row or two of—*dirt*, which is more successful than an attempt. High-heeled gaiters of red and yellow, and blue and green, are

much worn, and then again the female foot is bare. The inside of the hands is stained red, and the finger nails, ditto. These latter grow sometimes and show a streak of lighter color near the flesh, as is the case with the vain man who dyes his beard, but fails to keep pace with its growth. Lace and lavish color display are sometimes seen, and golden rings are *profurios*. The true blue and original sin are plenty in these queer streets and under the quaint costumes.

Good nature prevails, and I never have seen a drunken or quarrelsome person here. A refusal of backsheesh is met with a grin, and a request for backsheesh brings out a grinner. The people are religious, and will cease their persistent appeals to you to hire a donkey, to get down on their marrow bones and pray the moment the muezzin call is heard from the nearest minaret. And while they do it, the knowing donkey takes time by the forelock and rolls him over and over in the rich soil of the streets. The Arab is always willing—religiously persistent in offering his assistance under all circumstances, and he never fails, just as religiously, to take up a collection if he has rendered no service but to show you his fine, white teeth through the ripples of a smile. He brings up his children to piety also, as a catechetical exercise, as follows, proved to my entire satisfaction:

Correspondent.—*Meen amal inteh?* (Who made you?) Mustapha Achemed Effendi? Arab child.—“*Allah.*”

Correspondent.—*Aleshenay?* (What for?)

Arab child.—“*Audah backsheesh.*” (To have backsheesh.)

The Arabs marry early, the girls at twelve, and the boys at fifteen. Mustapha Ali told me his mother was married at twelve, and lived to be eighty-two years old. She had only two children. The Arab is also polite. When he salutes you, as he always does if you catch his eye, he touches, 1st, his mouth, to show praise with the lips; 2d, his heart, to show his affection; and 3d, the forehead, as a sign of respect. He is happy and cheerful at his work, sings and prays, and he loves his family—if they are good. His legs may be bare, his clothes ragged, but if he can afford neat shoes, he will have them, and have them

well polished, too. He is very noisy, but it is only because everybody else makes such a racket that he wouldn't be heard unless he followed suit. I like him. He has been underrated, and it shall be part of my mission in the future to raise him to his place. Many an Arab merchant is an intelligent millionaire here. And yet, go down to the quay and you will see a sad sight, hundreds of men at work there chained at the ankle and the waist in couplets. These are prisoners and are called “LUMON.” There is no prison large enough, and so they are chained together and made to work *a la Botany Bay*. I am not sure but it is a good plan. I conversed with several, and they seem cheerful, and prefer the chain disgrace to being shut in from the streets.

The Alexandrians, men, women, and children, all seemed willing to allow themselves to be used as subjects for the photographic camera, and I assure you they make the most picturesque foregrounds you ever saw. No wonder Meissonier came down here for his studies. My first experience in this line was at Pompey's pillar. I gave out about a dozen special invitations to a choice set to serve as contrasting “figgers” in a picture of the great column. No sooner did I cry “that will do,” than the crowd rushed upon me for a *collection*. Instantly my feet were entangled with apparatus, plates, lenses, etc., which, but for presence of mind, would have been utterly destroyed. It was a scene, but soon ended by an honest division of small piastres for service rendered. Seldom is my camera placed without dozens of ever curious people flocking about—a *queer* people. They drink only Nile water, but think it no harm to lie. They turn their faces to Mecca and pray tri-daily, and charge you three prices for all they sell you, if they can get it. But they are “so picturesque,” and backsheesh is so cheap, and so little causes them to cover you with gratitude, that one needn't mind their disagreeable characteristics. *I like them*. And when I go to Cairo in a few days, I hope to know them better, and to send you a still better account of them. They retire early, which fact gave me an unmolested chance at an evening and an early morning hour to walk out alone.

Frequently I would see a gray, or a blue, or a striped garment spread upon the pavement. There was always an Arab—a homeless, houseless, happy being—under it, and if you stuck a pin in it, you would find it was alive and ever ready to smile upon you and show its pretty teeth and bright eyes, and cry out “backsheesh.” They say “When you are in Rome, do as Rome does,” but I *cannot* tell a lie—this is all truth. It may be unpalatable to some, but I send it and would even like to take it to you, but I should want to fly back to see Cairo and the Pyramids.

Thus I have tried to give you some *word-pictures* concerning a *little* only of what I have seen and made photographs of.

Our first plates were exposed aboard the “Illinois,” on the Atlantic; and coming down the Mediterranean, we also made some instantaneous views of passing vessels, of Greece, the snow peaks, and of the crew and passengers. At Cairo we developed some trial plates, and with most satisfactory success. Is it not marvellous that one can bring these plates upon such a journey, and find them to come up entirely to one’s expectations of them? In a separate series of articles I propose to give the details of my *photographic* experience, and to show up some of the results. Never fear that the readers and patrons of the *Philadelphia Photographer* will ever be forgotten by its editor. But such an account will require more and further trial and experience before it can be satisfactorily given with the proper illustrations and examples of work. Bear with me then if, meanwhile, I divert you a little with only some accounts of the pictures which loom up about me in this old land on every side.

My old friend, Mr. Ellerslie Wallace, Jr., a man of large experience in our art, occupies the home-chair while I am away, and will see to it that you are in no way neglected, but fully satisfied and cared for in all your interests, and supplied with the latest and best news of our art promptly. I shall soon return, and meanwhile will keep my eyes open for all that interests you.

Truly yours,

EDWARD L. WILSON.

A NEW BOOK.

HOW TO MAKE PICTURES, OR EASY LESSONS FOR THE AMATEUR PHOTOGRAPHER.

By Henry Clay Price. Scovill Manufacturing Company, New York.

THE handy little book by the above title is strictly what it professes to be, in so far as the rudimentary instruction required by the beginner is concerned; but even those further advanced will benefit by looking over the chapters devoted to failure and its causes, as well as the general brief hints in such divisions as “Useful Information,” etc. We find a pleasing little frontispiece in the shape of a landscape, some four inches or more in size, made in order to show the capabilities of the ten-dollar outfit as sold by the Scovill Company. Byron’s well-known lines, “there is a pleasure in the pathless woods,” etc., greet us on the fly-leaf. The full force of such a quotation can, perhaps, only be felt by those who know the pleasures of out-door rambles with the camera. We welcome the little book heartily.

THE FRILLING OF GELATINE PLATES.

IN looking over the transactions of the Photographic Society of Great Britain, we find a formula given by Mr. Warnerke for a substratum which is said to prevent frilling of the gelatine film. Its composition is ingenious, consisting, as it does, of albumen, silicate of soda, and ammonia, and we do not remember to have seen anything of the kind proposed before. But we are strongly inclined to the opinion that no possible combination of chemicals, applied as a substratum, can be made to control this vexatious phenomenon. A plate showing a tendency to frill, shows also, to our thinking, an unreliable batch of emulsion. Any emulsion made of a sample of gelatine so absorbent of water as to bulge and swell, requires special treatment before it is risked on glass. Neither substrata nor alum baths will have the slightest effect, if the emulsion be wrong in the first place. And before leaving this subject, we would urge the discontinuance of citric acid in any of the

solutions applied to a gelatine plate. While experimenting with some plates from an emulsion faultless as regards frilling, we laid one of them in an alum and citric acid bath, to remove the stain caused by over-development. The film showed signs of frilling almost instantly, and in a short time the whole film detached itself from the glass and floated free in the dish. Having transferred it carefully to a large pan of water, we slipped another piece of glass under it, and succeeded in catching it again. When it dried, we found it nearly an inch larger in every direction than it was before. It occurred to us that if a film detached in this way could be caught and dried *in situ*, so as not to distort the lines of the picture, it would serve as a means of enlarging!

GELATINE LANTERN SLIDES BY REDUCTION IN THE CAMERA.*

WHILE there are many who have adopted gelatine plates for negative making, comparatively few know what charming transparencies can be made upon them. A large number of slides to be shown at the Society's coming exhibition are upon gelatine plates. This will offer a good opportunity for judging their qualities, as there will also be some by various other processes.

At a previous meeting we were shown how to make gelatine slides by contact, with the proper mode of development. I shall supplement this by giving the result of some experience obtained while making them from negatives too large for contact printing, in other words, reductions in the camera—a much more difficult operation, as any one will admit who has made them in this way and compared the difficulties he has had to contend with to the simplicity of making the same by contact. There seems to be a general opinion that reductions have not the fine tone and brilliancy seen in slides produced by contact. I think this is caused in a great measure by the light and lens used; they certainly have an influence over the result—a bright diffused light and quick-working lens, neces-

sitating short exposures, almost always being the best. During part of last winter I had the pleasure of experimenting considerably in this line with Mr. Corlies. The results obtained, after repeated trials, convinced us that with a slow plate (about the rapidity of wet collodion), using ferrous oxalate as a developer, we could make positives rivalling in delicacy and brilliancy our best work on washed emulsion or wet collodion. Our work was always done by daylight, excepting one attempt at night, when we used the sciopicon for illuminating the negative, with the result shown at the last meeting. The fault lay in placing a coarsely-ground piece of glass immediately in front of the negative for the purpose of diffusing the light, instead of using a very finely-ground piece, placed in the stage of the lantern, that being in the focus of the condenser. With a plate three or four times the rapidity of those used and a quick-working lens, there seems no reason to doubt that they can be made successfully by this means.

With the exception of the above trial the negatives were exposed to a bright north light, the reductions being mostly made from 7 x 9, and whole-size negatives. One great advantage in this mode of working is the facility with which any part of any size negative can be enlarged or reduced in taking that portion only; in fact, the landscape or foreground on an 8 x 10 negative can be made and clouds introduced from a quarter-size plate, or *vice versa*, by altering the adjustment of the camera and exposing for each separately.

We used a Dallmeyer stereo. lens of five inches equivalent focus, with smallest stop. The exposures with wet collodion would sometimes vary from five or ten seconds to almost that many minutes, according to chemicals, light, and density of negatives. In using gelatine it also varies with different lots of plates, the difficulties being much increased thereby. It seems more especially requisite in making slides on these plates than any other that each negative should have an exact exposure, differing, it may be, from every other in a lot selected for a morning's work; also, that the development should be carried to a certain point and

* Read before the Photographic Society of Philadelphia, February 1st, 1882.

then stopped immediately. Any error in either operation invariably changing the quality of the slide, it is almost impossible to judge of the exposure necessary for each negative, and not under or overtime some of them, especially when working with a collection of negatives representing, perhaps, three or four different kinds of plates with varying densities and actinic qualities. This is often a bone of contention between the two that work much together in slide-making. I have found among those made with identical materials, exposed and developed the same day, very much alike apparently, that some will require a variation in exposure for making slides of from five to ten or even twenty seconds, in order to obtain the best result; so that one must be content to lose at least a third in failures from this cause alone, and if fortunate in having a uniformly-working lot of plates, free from all imperfections, with errors in development reduced to a minimum, and turns out on an average one-half his exposures as first-class slides, he can congratulate himself.

The finer the negative, all other things being favorable, the better the resulting slide. A tolerable negative can never be made to yield a fine slide; but if it has the necessary sharpness and clearness, much can be gained by shading the weak parts during exposure. In such cases two persons working together are much better than one. It is by far the pleasanter way, as one can attend to development while the other exposes and changes negatives. When clouds are introduced, it is essential that there should be two persons; one cannot properly expose the plate and shade the negative at the same time. The value of a good sky to an out-door view cannot be overestimated, especially in lantern slides. Some think it a very difficult operation to put clouds in a slide; it certainly is no more so than in silver printing. With many negatives it is impossible, of course, but with others it can be done without much trouble, especially when they are dense enough in the sky to prevent the light affecting this portion on the slide, or with a negative, the sky of which can be blocked out, the exposure necessary for the cloud negative be-

ing generally so short in comparison to the other, that it matters little if the shading is exact, so that it blends into the landscape, unless there are high lights near the blending. The great trouble is to have a collection of cloud negatives sufficiently large to choose a sky in keeping with each picture, and to get the clouds of the proper density on the slide, the tendency generally being to have them too dark.

The Committee, in making a few slides for the exhibition, were enabled to conduct some very interesting experiments in reduction by the aid of the electric light, something, probably, never attempted before in slide-making.

Through the courtesy of Mr. McCollin, one of the Thomson-Houston electric lamps, giving an actual intensity of fifteen hundred candles, was placed at our disposal. Mr. McCollin also went to a great deal of trouble in arranging the lamp, dark-room, and everything necessary, giving us the free use of almost his entire building. Certainly we could have done very little without his valuable assistance.

The lamp was enclosed in a wooden box, eighteen inches square, and about three feet high, placed upright, and open at the back for adjusting the light. In the front of this box a hole twelve inches square was cut, in which one end of a wooden funnel was fastened, at right angles to the upright box. This funnel was about fourteen inches long, with parallel sides; over its outer end a sheet of pot opal glass was fastened. This being about twenty inches from the carbon points of the lamp, it diminished the intensity of the light some eighty per cent., but gave the essential requisite of equal illumination over its entire surface, which was about eleven inches square. Ground glass was suggested instead of opal, but we felt convinced that so even an illumination could not be obtained by its use, therefore it was not tried. The light was adjusted to the centre of the funnel, and the end of the camera holding the negative placed within two or three inches of the opal screen. Gelatine plates prepared by Mr. Carbutt, and stated to be a little slower than wet collodion, were used. In reducing from 7 x 9 and whole-size negatives, with an eight-inch Harrison portrait

lens, and about F-10 stop, the exposure necessary was from three to five minutes; when developed by ferrous-oxalate, with an alkaline-pyro developer, from three-quarters to one and one-half minutes were found sufficient.

SAMUEL M. FOX.

A HINT ON TOURISTS' CAMERAS.

BY INQUIRER.

If you, Mr. Editor, can find space in your valuable journal for this short note, I shall be very glad. I write in the interests of both photographic tourists and of the manufacturers of photographic apparatus. To look over the catalogues and price-lists of the latter, one would suppose, at first sight, that the makers of American cameras had left nothing to be further desired, either on the score of cheapness or perfect adaptability to the uses to which apparatus are to be put. Presumptuous as it may seem to some, I must, however, beg leave to think differently on one point. Most of the tourists' cameras are made to work either the four by five, or the five by eight inch plate; and all of them are made to hold the plate horizontally. The better quality of them are made (as *all* cameras should be) with swing-back. I am well aware that there are view-makers who will maintain that for their work a swing-back is not necessary. I do not say good negatives cannot be made without a swing-back; but I do think they can be made with far less trouble with one. But suppose, as is often the case with amateurs, that a view of a narrow glen, or a tall tree, or some such object, is to be taken with the plate in a vertical position, how then? "Oh! just reverse your camera on its tripod," says the dealer. Very good. But suppose, again, that the lay of the ground requires the camera to be tipped a little; yet, to get in all your subject as you wish, your dry-plate must hang plumb, what can you do? Manifestly, your swing-back (now changed from a vertical to a horizontal one) cannot help you. You must either make an unsatisfactory negative, or none. The question I would ask is, Is there no way to avoid such difficulties? The matter seems a very simple one to me.

Mr. J. L. Lane, of London, Eng., makes

a dry-plate camera that does away with the above difficulty. The back section of the box is not so deep from back to front as is common, and there is a frame supplied that, by means of spring-clips, can be instantly removed. Both camera and frame are made square, and the double-back slides into grooves on the back of this frame. It (the camera) has a single swing and rising front. It is apparent that the camera, once fastened to the tripod and set up, is at once available for pictures either horizontal or vertical, without change in its position on the tripod, and (another great thing with amateurs) can be used for single portraits the full size of the plate. The camera need not necessarily be of very much greater weight than now, and the advantages gained seem to me to more than counterbalance that one objection. It is to the interests of manufacturers to make their apparatus as attractive as possible to the very rapidly increasing class of amateurs; and I think, from what I have seen and heard, the improvement here pointed out by me would help towards that end. Will some of our manufacturers follow Mr. Lane's example and give amateurs a camera available for portraits and views such as I have mentioned?

HOW TO PUT COLLODION TOGETHER.

MR. O. PIERRE HAVENS sends us the following hints, which may prove useful to those who cannot calculate very closely as to the quantities of collodion they may require, and yet wish to make up small batches without passing through the troublesome routine of weighing and measuring everything at the time.

"I have seen hundreds of receipts for collodion, all of which have been more or less good; if it had been shown how to place the ingredients together. I don't propose to tell in this article what to put in, but how to put collodion together.

"I have a three-gallon bottle, which I fill with ether and alcohol in the following proportion:

Ether,	16 ounces.
Alcohol,	14 "

"I then add my iodides and bromides, dissolving such in a little water as are not soluble in the stock solution, using a large mortar for the purpose. Shake thoroughly and set aside to settle, which will be, say over night. Now this will keep as long as you wish. If you want a large or small lot of collodion, pour your desired quantity off, and add four and a half grains of Snowy and Climax; or Climax and Hance's Cotton, equal parts thoroughly picked apart, to each ounce of the stock solution; this will give you any desired quantity you like in a few hours. Should you ever have by this method any old collodion on your hands, don't throw it away, but drop a small lump of cyanide in it, and when it comes up to a good amber color, filter and use with your new. This was given me by a good friend in New York, and has been of great value to me since. O. PIERRE HAVENS."

ADVICE TO A BEGINNER.

BY JOHN C. BROWNE.

THE interest in the delightful art of photography has received such an impetus in the last few years, by reason of the improvement in rapid gelatine dry-plates, that we hear constantly of persons making inquiries in relation to the various kinds of outfits suitable for their wants.

The object of this paper is to suggest to those thinking of taking up photography as an amusement, some points that may assist in the selection of the apparatus required.

THE CAMERA BOX.

The first and most important question to decide in purchasing an outfit is the size of picture to be made. This must be well considered, and when that is settled it is comparatively easy to arrange the rest. After many years' experience, I am forced to the conviction that the smaller the picture the greater will be the amount of work accomplished. Of course large views of well-selected subjects are far preferable to small contact pictures. But the beginner must remember that the cost of an outfit, say 10 x 8 inches, is about four times the cost of one 5 x 4, and the cost does not end with the purchase of the outfit, as the ex-

pense of large plates is much greater than smaller ones. In mentioning small plates, I am inclined to think that 5 x 4 inches is the smallest practical picture worth considering, and for amateurs I would strongly advise the selection of that size. Camera boxes of good quality can be obtained at reasonable prices of any dealer in photographic goods. The articles required to make a complete outfit will be one or more lenses, a camera box, at least three double backs, a case in which to carry them, a tripod, focusing glass, dark cloth to cover the head, and a lot of gelatine dry-plates. These are all that is necessary. The operator must make himself familiar with the different methods for developing the exposed plates. This information may be obtained from books and magazines. But experience, after all, is the best school. Failures must be expected at first, but good results will soon be obtained if care and attention be given to the directions.

THE LENS.

Should the operator intend to make landscape pictures only, or groups out of doors in bright light, nothing will be found better than a Wilsonian or single lens. If portraits are required to be made indoors, or instantaneous pictures of animals and moving objects out of doors, some of the many portrait lenses must be used to obtain the best results. Should copying be the principal object, lenses will be found made especially for that purpose. In other words, each kind of work requires a special lens to do it best. There are some lenses that answer quite as well for landscape as copying, but these lenses are wide-angle, and not as useful as lenses of longer focus would be to the operator, who, I will suppose, does not care to go to great expense at first until the experiment has proved successful. In view of the great variety of photographic lenses in the market, and the difference of opinion expressed by operators on this subject, I will not mention any particular lens, but will take it for granted the amateur will consult some of his friends who are familiar with his requirements. It must be remembered, however, that single lenses are the least expensive, portrait lenses the highest priced.

PROCEEDINGS OF SOCIETIES.

CHICAGO PHOTOGRAPHIC ASSOCIATION.—A regular meeting was held at Douglass, Thompson & Co.'s Warehouse, 229 and 231 State Street, on Wednesday evening, February 1st, 1882.

The chair was taken and meeting called to order at 8 o'clock by Mr. Hall, the retiring President, and the minutes of last meeting having been read and approved, that gentleman delivered his Valedictory Address, as follows:

GENTLEMEN: In accordance with the custom of our retiring officers, I shall now attempt to review briefly our labors of the past year, and if I make a suggestion for our future course of action before closing, I hope you will not think me intruding on the rights of my successor.

The eleventh year of the existence of this Society has been fraught with the deepest interest. There has never before been a year, since its organization, that we have had such uniformly large attendance. Neither the extreme heat of summer nor the inclement weather of the winter has deterred the members from meeting here in large numbers. There has not been a session during the year that has not been largely attended, and some of our meetings would almost remind one of a National Convention. The subject of interest which has called together such large numbers, you all very well know to be the gelatine dry-plate. There has been a great desire on the part of the fraternity to learn all they could of its success, its progress, and the prospects of its future use. The powerful magnet of attraction, however, has been the willingness, on the part of those using this plate, to freely give their experience with it, and to explain the successful methods adopted by them to overcome the difficulties they encountered, and to exhibit here their beautiful results. It is to these members that we must offer our thanks for the deep interest which has existed in our Society during the past year.

Gentlemen, we have given our united efforts for eleven years to the advancement of the art and science of one of the most beautiful and interesting processes God has ever revealed to man. How well we have

succeeded in this laudable undertaking, I am willing to leave to those better qualified than myself to judge. But it gives me pleasure to state that one of Chicago's finest photographers told me, after his return from the Convention at New York, and a tour through New England and the Dominion of Canada last summer, that he saw in no city such uniformly good work as is exhibited in the show-rooms of our Chicago photographers. How much credit is due to this Society for the superiority of Chicago photographs over those of the older cities of the Eastern States and the Canadas, you can judge as well as myself. Even if we have no credit given us for this high standing of the art in our city, we do have credit given us in *Mosaics*, just out, for being the best photographic Society in the United States.

My friends, there is a bright page in the history of our Society, but do not be deceived by being accorded the front rank, and thus led into the idea that we can rest on our laurels; that we have nothing more to do; for we have just got into a position now where we can accomplish more good than ever before, if every member can but comprehend our standing as a Society, and realize his own duty, with the determination to do that duty. For the photographers of the whole United States, yea, of the whole world, are looking anxiously every month for the reports of this Association; consequently, our influence is greater and far more extended than it was a few years ago.

Gentlemen, thus far I have presented to you the bright side of the picture; but I am sorry to say that there is a dark side, of which I was very forcibly reminded a few weeks ago. I happened to step into one of our city galleries; a minute afterwards a young photographer came in. I was introduced to him as the President of the Chicago Photographic Association. Said he, "Oh, yes! I once attended one of their meetings, but was not favorably impressed, and never went again." I replied, "It might have been an unfavorable session. If you had continued to meet with us, doubtless you would have become better pleased." Here the proprietor of the gallery joined

in: "Yes, it is a good place to go for those who want to learn more of photography, but," he added, in language more forcible than reverential, "I do not want to learn more of photography until I can get better paid for what I already know."

Tupper, in his *Proverbial Philosophy*, says, "For there is no error so crooked, but it hath in it some lines of truth; nor is any poison so deadly, that it serveth not some wholesome use."

So it is in this case. I see in the error of that man's profane words, which are so well calculated to poison the minds of those who are opposed or indifferent to our Society and the efforts of its members, a line of truth. For, how often do we hear of a photographer getting anything for "knowing how," especially in Chicago? If he gets paid for time and materials, he is a lucky man. The very idea of getting anything for "knowing how," may be absurd to some photographers. I judge it must be to those I have heard figure like this: "The paper will cost so much, the chemicals so much;" he pauses, then says, "well, I have to keep an operator and a printer, and a girl in the reception-room; I guess with a little extra exertion they can do this work, without neglecting any of our regular custom. I know the offer is but a few cents more than the cost of the materials, but it will be so much towards paying the help." So he decides to take the mere pittance offered him by the customer, without giving a thought to the influence such a transaction will have on his business, and his neighbor's, too. He does not even take into his calculations the necessary time that it will consume to do the work, to say nothing of the time and money it has cost to learn how to do that work in a proper and acceptable manner. Who ever heard of a man possessing a knowledge of the first principles of business figuring in that way? I once knew a teamster who was applied to by a merchant to move a safe from his store to another a few blocks away. Upon the teamster naming the price he would charge, the merchant looked surprised, and said, "Is not that a large price just for moving that safe?" The teamster answered, "My dear sir, it is not all for moving the safe." "Pray tell me

what it is for, then?" said the merchant, in some astonishment. "A part of it," replied the teamster, "is for knowing how." It is evident that man was not merely a teamster, but a thorough business man as well, and expected some pay for his knowledge and responsibility as well as the hard work he was called upon to perform.

I have said that our city has the credit of possessing the best photographers and the best photographic society in the United States, but who ever heard it said that we have the best business men engaged in our profession? I think no one. You will pardon me for saying it, but it is a fact well known that photographers stand very low as business men. And it is my opinion that this is the key to all our difficulty in getting prices that the quality of our work should demand. I know some attribute the cheap prices to the "dilettanti" engaged in the art; but I must beg leave to differ from such, for I believe it simply due to the lack of proper business education by our artists. Undoubtedly some of you will say, "Well, if it is so, what has this Society to do about it?" I ask all such persons, "What has this Society had to do with the art and science of photography for the past eleven years?" Now, I have come to the point where I want to make the suggestion. We discussed at one time, with a good deal of warmth and interest, "De Legibus," as applied to the art of photography. Now, let us have it discussed with equal interest, applying it to the business of photography; let us have lectures on business rules, and the best methods of applying them to our advantage. Let us have papers read on the same subject, and let us have free and friendly discussions on the same. And I feel assured that in less than half of eleven years we shall see our prices improving, our standing among business men elevated, and more of our fraternity with homes of their own, and with lighter hearts; we shall see them happier men. I beseech you all to give this suggestion careful consideration, and determine in your own minds if it is not worth a trial.

My friends, I presume this is the last time I shall ever have the privilege of

calling the members of this Association to order, therefore I desire to thank you for the many kindnesses I have received at your hands, and to say to you that I have enjoyed this position more than I ever did a similar one in my life. The deep interest manifested by the members in the work before us, and the perfect harmony that has existed in our ranks the past year, have been great sources of gratification to me.

And now that I am about to retire from this pleasant position, it gives me renewed gratification to know that the duties of this chair are to be entrusted to one who has been tried and found worthy and well qualified. I had hoped to enjoy the gratification, this evening, of personally calling on my successor, your President elect, to take this chair; but, since fate has decreed otherwise, Mr. Douglass being detained at home by sickness, I take equal pleasure in calling upon one who, though his second in office, is his equal in experience, your Vice-President, Mr. P. B. Greene. (Applause.)

Mr. Greene, hereupon taking the chair, said that not only was he a poor speech-maker naturally, but was on this occasion totally unprepared to say anything, as he had felt confident his superior officer would be present. Indeed, knowing well Mr. Douglass' regular and punctual habits, and his devotion to the interests of the Association, he (Mr. G.) had been congratulating himself on the prospect of his official position proving entirely a nominal one, and being, in fact, a "full private" the whole term; and he still hoped this would be the first, last, and only occasion during the year that he would be called on to preside. But, as fate had been against him this time, he would do his best, and thanked the members for the honor conferred upon him. He would now call on the retiring Second Vice-President (First Vice-President being absent) for such remarks as he might consider appropriate.

Mr. Gentile, in reply, said he did not see that any room was left for any remarks on his part; Mr. Hall had so thoroughly gone over the ground. He would only observe, that he cordially agreed with all that gentleman had said, and hoped to see his sug-

gestions acted on by the members. This Society ought to have a much larger membership—the number who actually paid their dues was very small. Perhaps something of this might be due to their method of conducting their meetings; he recollected that in Boston they used to have much more social gatherings.

The Secretary's report was now presented. This was very brief, and from it appear the following facts: 1. The actual membership of the Association is an unknown quantity. No attempt has ever been made to enforce the provision in the Constitution relating to payment of dues, so that no member's name has ever been expunged from the roll for non-payment thereof moreover, owing to the fact that the late Secretary never made any report, and kept his books in such shape that no one else can understand them, it is impossible to tell who has paid dues for 1881, except in case of those who paid since the present Secretary came into office. The number of new members who have joined during the last year is 14; number who have paid dues for 1882, 20; but in explanation of this latter figure, it should be remarked that the attendance at the last (election) meeting was unusually small, probably owing to the fact that we have few "politicians" among us.

The Treasurer's report showed as follows: Cash balance on hand, February 1st, 1881, \$26.20; received during the year, \$34.00; cash paid, \$20.50; balance on hand, February 1st, 1882, \$39.70.

These reports were accepted and placed on file.

The next business in order was the report of Committee (Mr. Gentile) on Circular of the Société Française des Archives Photographiques, Historiques, et Monumentales (Comité Daguerre), asking the Association to contribute towards the erection of the proposed monument to Daguerre, which was as follows:

MR. PRESIDENT AND GENTLEMEN: Your Committee appointed at last meeting to report on the communication received from the Société Française des Archives Photographiques, Historiques, et Monumentales, would recommend that this Society entertain the same, because the photographers

of Chicago will honor themselves by subscribing (even though it be a small sum) to the fund for the erection of a monument to the greatest of photographers, the discoverer of the Art Science, the great Daguerre, to whom we all, especially his followers, owe a debt of gratitude, and the best way for us to show that we appreciate the genius of that great French artist, will be for us to send our mite to assist in erecting a monument to his memory. We assuredly can afford to do so, as it is not often we are called on to contribute to the building of monuments to departed members of our fraternity. Not because photographers are not great men, but they never—that is, hardly ever—seem to depart from this globe. It must be a healthy profession, or we might have been oftener called upon to contribute to the erection of monuments to the great and distinguished of our art science.

It will, I think, be appropriate to give the particulars of what our French friends are doing, and have done, on this subject, and the following information I have obtained by translating the papers that were addressed to this Society, and I think will prove of great interest to us.

I will first read the letter from the President of the French Society to the President of ours.

“SOCIÉTÉ FRANÇAISE DES ARCHIVES PHOTOGRAPHIQUES, HISTORIQUES, ET MONUMENTALES.

“Office of the Management, 7 Rue des Penitents.

“PARIS, November, 1881.

“MR. PRESIDENT: We have the honor to address you the enclosed circular relative to the monument that we desire to erect to the memory of Daguerre. You will be kind enough to bring the matter before your honorable Society, and we take pleasure in thinking, Mr. President, that it will be agreeable to all to participate in our work of gratitude. We beg, Mr. President, that both you and your honorable colleagues will accept the assurance of our most cordial friendship.

“E. LETELLIER,

“President Daguerre Committee.

“We also send you, at the same time, some subscription lists and circulars.”

The circulars referred to read as follows:

“On the 25th of August, 1880, a meeting was held at the office of the Société Française, of which M. Letellier is President, conformably with the notice previously given, and M. Letellier addressed the meeting on the subject of erecting a monument to Daguerre.

“M. Collard, President of the Society ‘L’Union Photographique de France,’ gave an account of the steps already taken by him on this subject. He told them of the reception that he, together with MM. Glaise and Versnaeyer, had received from the Mayor and municipality of Corneilles-en-Parisis, at their meeting of 13th of April, 1880, and at which they voted to subscribe one thousand francs.

“Afterwards, M. Collard reminded them of the previous steps that had been taken on June 11th, 1879, with the Mayor of Petit-Bry, the locality in which Daguerre spent the second part of his life, and also the place where he had made part of his researches, and had labored to arrive at the discovery which was to render his name illustrious, and lastly, it is the place where he died, and the resting-place of his remains. Mons. Collard and his colleagues gathered, with veneration, the testimony of esteem and admiration in which the memory of Daguerre is held in this neighborhood. Furthermore, M. Collard recalled the resolution that was passed by the bureau of the society ‘L’Union Photographique’ at its meetings of 16th April and 20th May, 1880, which authorized the Société des Archives Photographiques, etc., to continue the work of obtaining subscriptions to the monument for Daguerre, which the former Society could not carry on any longer.

“Mons. Letellier accepted this mission on the part of his Society, of which he is managing director. Information of the same was given to the Mayor and municipality of Corneilles-en-Parisis, and M. Letellier said that he would give in his journal, the *Revue Photographique*, all the publicity possible to ensure the success of this work, to which he thought the whole press would lend its indispensable and kindly assistance. Mons. Letellier moreover expressed the hope that not only the photographic world, but that the world of

science, arts, and commerce would participate to honor the memory of the illustrious citizen whose labors have given the world such a useful discovery. M. Collard agrees with M. Glaise that the name of Daguerre is more widely known and popular than that of Nicéphore Niepce, and without wishing to detract anything from the merit of the learned Niepce, and the part he has in this marvellous discovery with which we are occupied, we must not stop at jealousies or the slightest insinuations which have no serious foundation in any document, but might cast a slur on the memory of Daguerre. If the town of Châlons-sur-Saône honors itself by counting Nicéphore Niepce among the number of its children, and demands a statute for him, the whole world has proclaimed the name of Daguerre, and Cormeilles-en-Parisis, which gave birth to this great artist, has the right to be proud of him and demand for him a monument. Niepce died before he was able to say, like Daguerre, 'I have found;' but at this time very little separated him from the result which was found, but this result he did not arrive at; whilst it is indisputable that Daguerre obtained, and presented to the Academy, the first practical Daguerrian proof, and from that moment photography was invented; it existed; it was from this point of departure that a series of discoveries and improvements were constantly being made, which enrich photographic science.

"To Daguerre, then, is due the greatest part of the glory of being the inventor, and Parliament, in voting to him a recompense in exchange for his giving to the world his process, only accorded to him a very slight recognition, considering the results obtained to-day.

"The Société des Archives Photographiques, Historiques, et Monumentales, at its meeting of 25th August, 1880, proposed to form a committee and sub-committees, in order to organize and collect subscriptions destined to the erection of a monument to Daguerre, in one of the squares in his native city, Cormeilles-en-Parisis. The Bureau of the Société des Archives invites the Secretaries to write up a notice on Daguerre, and members of the Society, also savants, artists, and photographers, who are not

members of the Society, are invited to send in any notes that may be useful.

"M. Collard proposed that all active members should organize sub-committees in the provinces, to gather subscriptions. The designs for the monument will be put in competition."

Then follow lists of committees, etc. There is another circular, dated Paris, 5th February, 1881, which reads as follows:

"SOCIÉTÉ DES ARCHIVES PHOTOGRAPHIQUES, HISTORIQUES, ET MONUMENTALES. DAGUERRE COMMITTEE.

"HONORED SIR: The two men to whom our century owes one of its most wonderful discoveries, photography, have the right to live eternally before the admiration of grateful generations. Nicéphore Niepce will soon have his public monument at Châlons-sur-Saône, his native city. Daguerre ought also to have his. Penetrated with this idea of doing justice, we have decided—and in harmony with the municipal administration of Cormeilles-en-Parisis, the birthplace of Daguerre—to organize a subscription in favor of a monument to be erected in this locality, in honor of the eminent man and artist-painter who first gave to France the diorama, and to the whole world the astonishing discovery which was first known under the name of 'Daguerrotypy.'

"The municipal administration of Cormeilles-en-Parisis has headed the subscription list with a thousand francs. Being persuaded that the whole world will take it as an honor to participate in this work of gratitude, the committee makes an appeal for your kind assistance.

"The names of subscribers, with the amount given, will be published in the *Revue Photographique Illustrée*, the organ of the Society, and each subscriber of three francs and upwards will receive, free of charge, a magnificent portrait, with the autograph of Daguerre, reproduced by a process that will never fade."

I think it will not be out of place, in closing this report, to give some data in the history of the discoveries by Niepce and Daguerre.

It was as far back as the commencement of this century that Nicéphore Niepce formed the idea of making pictures by the

aid of light. It was in the year 1814 he commenced his researches in this direction, but at first with poor success, and for years he labored with great patience and perseverance, and little by little made headway, until at last he made pictures by the aid of light. He was the first to call to his aid, in making pictures, the invention of an Italian, Porta, the camera obscura, which was invented nearly three hundred years ago.

In the year 1826, Niepce produced some pictures, which, to-day, would not be considered very satisfactory. It was not until 1829 that Daguerre and Niepce joined together to work out the same results; and they worked together until the death of Niepce, in 1833, when, of course, Daguerre became possessed of all Niepce's secrets, and five years after the death of the latter, Daguerre succeeded in showing proofs that he could make a picture in a manner that was practical, and in the year 1838 he presented satisfactory proofs to the French Academy of his achievement. At that time an immense excitement was caused, and every one wanted to know how pictures were made. It was on August 19th, 1839, that Daguerre's secret of making pictures by the aid of light was made public, and the French Government showed its appreciation of the value of the discoveries by giving to Daguerre a pension of \$1200, and to the son of Niepce, \$500.

We all know that Prof. Morse was the first to bring over Daguerre's invention to this country.

In conclusion, your committee would state that, in speaking of the subject to several photographers and stock-dealers in the city, these gentlemen have manifested great willingness to contribute towards this praiseworthy object.

Respectfully submitted,

C. GENTILE,
Committee.

On motion, the report was accepted and the committee discharged.

A rather animated discussion followed as to the best method of going to work in response to the invitation of the French Society. As to the main question, that something worthy of the Association should be done, there was great unanimity, but

each member seemed to have his peculiar notions as to *how* it should be done; and several gentlemen clung to their ideas so pertinaciously, that much time was consumed without arriving at any satisfactory solution of the question. Finally, it was resolved to lay the matter over until next meeting, and meanwhile a committee of three (Gentile, Smith, and H. G. Thompson) appointed to solicit subscriptions among the fraternity in this city.

The next business on the programme was a discussion on "Acetate of Lead as a Hypo-eliminators." Owing to the lateness of the hour, however (and the average Chicago photographer, whether it is "greatly to his credit" or not, unquestionably has a strong predilection for keeping good hours, at least as far as society meetings are concerned), this subject did not have justice done to it. The Chair called on Dr. Garrison to give the meeting some information as to the chemical reactions involved. Dr. Garrison, in reply, said he had never studied this particular question, and was not specially posted on it, but he had been asked by the newly-elected President to say something on the subject, and found his name on the notices in that connection. He had done very little printing on albumen paper himself, most of his experiments being directed towards the production of transparencies for the lantern and microscope, etc. But he had some practical experience with hypo, and, from general chemical knowledge, could probably throw some light on the subject. Now, hyposulphite of soda consists of two atoms of sodium, two of sulphur (S.), and three of oxygen (O.). The only difference between it and sulphite of soda is that the latter has one atom less of sulphur—its formula being, sodium two, sulphur one, and oxygen three. Sulphate of soda, again, has one atom of sulphur and four of oxygen. Hyposulphite is converted into sulphate by replacing one atom of sulphur by one of oxygen. This change is liable to occur spontaneously by exposure to the air, but in the presence of lead salts it proceeds much more rapidly. It is the old fundamental law of chemistry,—one element begging, as it were, for another. In this case the hyposulphurous acid radical

exchanges one atom of S. for one of O. But in order that this exchange can be made, some body must be present that wants the sulphur, and here is where your lead salts come in: suppose, for instance, you use acetate of lead, which is greedy for sulphur, the sulphuric acid radical combines with the lead, making a beautiful white substance, insoluble in water—sulphate of lead—while the oxygen thus set free combines with the sodium, forming acetate of soda. This change takes place very rapidly; the sulphate of lead is entirely insoluble in water, and in any but very strong acids, and as any hypo remaining in the prints is probably changed to this compound, which is permanent and white, it is, of course, harmless.

MR. GREENE.—In using acetate of lead to remove hypo, a milkiness, more or less marked, according to the sample of water used, occurs when it is dissolved. It is usual to get rid of this effect by adding acetic acid. What effect, if any, does this have on the prints?

DR. GARRISON.—The carbonic acid in the water combines with the lead, forming carbonate of lead. Acetic acid redissolves this. Nitric acid might be used for the same purpose, but the other being more volatile is soonest got rid of, and, therefore, preferable.

MR. SMITH.—I formerly used acetate of lead for the purpose in question, and at first liked it; thought it saved me a great deal of washing, and, moreover, it enabled me to mount my prints the same day they were printed, instead of leaving them soaking all night, as I had previously done. Besides the obvious convenience of this, it seemed to me that the prints looked better for this rapid washing, and certainly there was a smaller percentage of spoiled prints. But I have now entirely discontinued its use, owing to the fact that the prints faded—many of them turning yellow in two weeks.

DR. GARRISON.—I did not wish to be understood as recommending, or condemning, the use of the salt in question. My remarks were designed to be confined to a brief description of the chemical reactions involved, leaving the members to make such practical application thereof as their judgment should dictate. But it seems to me

that Mr. Smith's trouble is easily explained. I have already said that acetate of soda is one of the products of the double decomposition that takes place when acetate of lead comes in contact with hypo-soda. Now this acetate of soda is one of the most deliquescent salts known; so much so that, if sprinkled around loose in a room containing air in a normal state as to moisture, it will rapidly dissolve. Now, if this salt is not thoroughly washed out of the prints, it will, after they are dried and mounted, collect moisture from the surrounding air, and thus keep the surface of the print in a damp, sticky condition, very favorable to fading.

MR. HALL.—In the early days of photography, when the great bulk of its followers knew very little of chemistry, we were very apt to adopt any suggestion coming from those few who were better informed on the subject than ourselves. In the days of which I speak, it was the custom to tone and fix at one operation—the old “sulphur toning.” Well, we happened to hear that acetate of lead was a good toner, and, amongst others, I tried it, and liked it—gave good tones, and worked easily. But after awhile I found that it was very treacherous. Some of the prints lasted for years without showing any sign of fading, while others turned yellow in less than a month. What was the cause of this uncertain action? I never found out, but finally abandoned the process.

MR. GREENE.—I have used acetate of lead for nearly four years as a means of removing the last traces of hypo from my prints, and during that time I have not seen a print show the least sign of fading. Some of them have been hanging up, exposed to light and atmospheric influences, over three years. And, with due deference to Dr. Garrison's superior chemical knowledge, I must differ from him as to the cause of Mr. Smith's difficulties. It is not, in my humble opinion, the acetate of soda left in the prints, nor any other product of the lead treatment that causes the fading. It is the hypo, which has never been touched by the lead-salt at all. Mr. Smith, as we all know, handles very large numbers of prints, and, besides that, is prevented by his other business occupations from giving his personal

supervision to this part of his gallery-work. Therefore, he has to rely on his help, and it is not to be wondered at if they, towards the close of a busy day, with a large accumulation of prints to tone, fix, and wash; should be inclined to rush the thing through, and slap the prints into the lead solution in large batches. In this way they stick together, and the solution, during the short time they remain in it, has no chance to reach some of them at all—thus the hypo is not removed. It may be objected here, that probably no greater care was taken under the old system of washing, before Mr. Smith introduced the lead business; but that gentleman has himself informed the meeting that it was formerly his custom to leave the prints washing all night, whereas under the lead treatment he mounted them the same day. Now, I will give you my own *modus operandi*, and I believe that any one following the same system will have no cause to complain of want of permanence in the results. After the prints are fixed, take them, one at a time, out of the hypo and place them in a strong solution of salt in water; let them stay in this fifteen minutes. Drain off the salt solution, wash three times with water, draining dry each time, and fill up the dish again with water, leaving the prints in it. Next, prepare your lead solution thus: Dissolve one ounce of acetate of lead in twenty ounces of water; this is the stock solution. Take one-half ounce of this, and add to it from one to two gallons of water; adding acetic acid until the milkiness disappears. The solution should now test decidedly acid. Put your prints into this solution one at a time; let them stay in about five minutes, and take them out again one at a time. Now, wash in four changes of water in the way you did after fixing. Keep the prints moving all the time to ensure thorough washing. Take them out and mount them. When dry, rub them well with a tuft of cotton, to remove any precipitate of sulphate of lead that may be on them. They are now ready for spotting out and burnishing. By following these directions, you will have brilliant and permanent pictures, but if you put them into the solutions by handfuls, they will not be half done in any of them, and your work will be a failure.

MR. HALL.—I would like Mr. Greene to explain his reason for using the lead—what advantage does it confer?

MR. GREENE.—Quick washing. Only twenty minutes being required for the operations I have just described.

On motion, adjourned to first Wednesday in March. F. H. DAVIES, *Secretary*,

No. 78 Michigan Avenue.

ASSOCIATION OF OPERATIVE PHOTOGRAPHERS OF NEW YORK.—A regular meeting was held January 7th, 1882, President Coonley in the chair. All the officers were present except the Treasurer. The minutes of last meeting were read and approved. The Scovill Manufacturing Company, through Mr. Hallenbeck, presented to the Association, No 2 of *Scovill's Serials on Photography*. Also were received, *British Journ. of Photography*, *London Photographic News*, *Philadelphia Photographer*, *Anthony's Bulletin*, and the *Photographic Times*, for all of which a vote of thanks was given.

Mr. Roche exhibited a large number of prints made on "Anthony's" new preservative paper.

Mr. Hallenbeck also exhibited a dry-plate lantern, manufactured and for sale by the Scovill's. All dry-plate workers present expressed their admiration of this useful little utensil.

In continuation of discussing the subject "Fading of Prints," Mr. Atwood showed a collection of prints, similar to those exhibited before. A further discussion elicited nothing new.

Mr. Field, speaking on the quality of the negative, as an agent to obtain permanent prints, said, If a weak negative is printed from, the result, with our present knowledge, cannot be doubted. It can, by the short exposure it requires, give only a weak print; then the reduction of the chloride of silver is only imperfect, and owing to the paucity of silver in the deposit it cannot receive gold enough to make the print permanent. The different tones and density of negatives are the first conditions of the results we obtain. The tone or color of the negative is, therefore, of the greatest importance, and to obtain them at will is beyond the power of the operator. He is subject to a variety of

conditions of chemicals, light, time of exposure, etc., which very rarely he can control. The quality of the negative assures the quality of the print.

MR. COONLEY.—Admitting all that, I think that a judicious and conscientious printer should choose a printing bath in accordance with the negative. The best negative, may, under adverse circumstances, produce a poor print, while oftentimes a poor negative gives, in the hands of an expert, a print of better quality than expected. For the production of good negatives it is indispensable to properly light the subject, to bring harmony in the face, drapery, and position. The finest point, however, is to judge correctly of the time of exposure required. The tone of the negative is a consequence of the management of your chemicals and can be controlled. Intensifying a thin negative is not illegitimate, although I have myself, out of 30,000 negatives made within the last two years, had but very rarely to resort to that remedy.

MR. EHRMANN.—In regard to the printing qualities of gelatine negatives, I need not tell you how frequently we are compelled to intensify. We are all aware of the fact that mercury in its different and manifold ways of application gives only temporarily well-printing negatives. In course of time they will, and necessarily they must, all fade. I have used mercury as an intensifier in probably all the different ways recommended, with the same result. Our present mode of working requires us to give to the negative frequently density by artificial means, and it is our task to find a medium which will stand time and light. The uranium nitrate recommended by Dr. Eder is pronounced to be the most stable intensifier. I have followed Eder's formula strictly, and with surprisingly good results. It is certain, however, that the red prussiate of potash used in conjunction with the uranium must be perfectly washed out, or the negative will by longer exposure to light gain in intensity and change to a yellowish-brown tone. In place of nitrate, sulphate of uranium has been spoken of lately, claiming for it a more thorough action, and attributing to the nitrate a tendency to make pin-holes. So far, I have

got along with Eder's formula to my entire satisfaction.

MR. ROCHE.—The tone of a collodion negative is the first necessity for a good and lasting print. The quality of the negative is the consequence of management. Formulæ alone will not make a good operator, unless he, with one of our oldest friends, puts a goodly quantity of brains in his bottles and dishes. Gelatine negatives I strengthen now to their proper density with sulphate of uranium. Take ten grains of it and dissolve in one ounce of water, and pour over your well-washed negative, mixing it before in equal parts with a ten-grain solution of prussiate of potash, and subject it to the action of the mixture till the proper density is obtained. In portraiture be careful not to overdo it. Has your negative become too intense, the whole deposit can be washed off with a five-grain solution of cyanide of potassium, and after a good washing the process be renewed. I prefer the sulphate to the nitrate for its quicker action and the impossibility of making pin-holes. Besides, the sulphate seems to penetrate the whole film, while nitrate seems to work only superficially.

Mr. Roche exhibited a number of negatives intensified with uranium, and of various tones and density.

CHARLES EHRMANN,
Secretary.

PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.—Minutes of the regular meeting held February 1st, 1882, the President, Mr. Joseph W. Bates, in the chair.

The minutes of last meeting were read and approved.

The Secretary called the attention of the members to a copy of the *British Journal Photographic Almanac*, which had been presented to the Society by the editor.

Messrs. George B. Wood, H. W. Smith, and Edward B. Harden were duly elected members of the Society.

Mr. Fox read an interesting paper on the process of making gelatine transparencies by reduction in the camera.*

Apropos of using pot opal glass as a dif-

* See page 70.

fuser between the electric arc and the negative, Mr. Powell stated that for this purpose he did not consider it as suitable as either porcelain or fine ground glass, from the fact that the light transmitted by pot opal glass contained a preponderance of the red and yellow rays, the actinic rays being in a measure cut off. This fact, he said, was not common to all samples of this glass, but due, he thought, to different molecular arrangements. He suggested, that for making transparencies, the light reflected from a white plaster surface was preferable to transmitted light.

Mr. Castner described some experiments regarding the length of exposures required for different stops, the theory being, he said, that the exposures required for given stops were inversely proportional to the squares of their diameters, thus a stop $\frac{1}{2}$ " in diameter would require four times the exposure necessary for one 1" in diameter, This he believed to be incorrect, as the results of his experiments seemed to prove that the time necessary for given stops were inversely proportional to their diameters, and not to the squares; that is, a stop of $\frac{1}{2}$ " diameter would require double the time necessary for one 1".

Mr. Corlies exhibited a novel form of field glass, by Messrs. Bardou, of Paris, which could be transformed into a camera by removing the lenses and eye-pieces and attaching a focusing screen and plate holders.

Mr. Browne showed a number of photographs which he made in 1861, and which, considering their age, and the fact that they were toned and fixed in the same bath, had retained their color wonderfully, and with scarcely any of the "yellowing" usually found in old silver prints.

Mr. Hewitt stated that his experience had been that silver prints made on albumenized paper a number of years ago, retained their color better than those made more recently. He further said that this paper would become yellow with age, independently of any chemicals, and believed that "hypo" was not so much the cause of prints becoming yellow as many supposed.

Mr. Townsend exhibited some successful prints from gelatine negatives. Two of these

interiors taken by gaslight were particularly good. These were made on Cramer & Norden dry-plates, with a No. 1 Euryscope lens, large stop, time 20 minutes. The illumination was furnished by three gas burners of the usual pattern.

On motion, adjourned.

C. R. PANCOAST,

Secretary.

ANSWERS TO QUESTIONS TO THE CRAFT.

1. What has been your experience with emulsion plates? Are you having success with them, and what advantages do you find in their use?
2. What have been your failures with them, and what the causes thereof, and what the cure?
3. Do you think they will ever enable you to discard the bath and collodion?
4. Do they place you in the way of producing more artistic work?
5. How do your patrons like the resulting pictures?
6. Are your patrons more appreciative than formerly?
7. What are the prospects for business during 1882?
8. Any further hints for the good of our co-workers, will you kindly add them?

1. It is nearly two years since I exposed my first dry-plate, and though I feel very much encouraged by the success I am now having, I don't lay any claim to having mastered the process (for that matter, I have not mastered the wet process), but would hardly think of running without them. The advantages I find in their use are: 1. In point of time, often allowing me to obtain a good negative that would otherwise be lost (being late in the day, and the sitter not being able to come again). I think I have made enough from such cases to pay for all the plates I have used. 2. Always being ready to work, I have often had it happen that the baby took a notion to sit still when my plate had stood so long that oyster shells were the principal result, and by the time another could be prepared, the "spell" was off, with little prospect of returning. 3. No silver-eaten plate-holders, stained fingers, clothes, etc.

2. My failures have been: 1. Regulating developer to suit exposure. One who will

think a moment, will realize that an error in exposure on a plate requiring six to eight seconds' exposure, would make vastly more difference than the same error on a plate requiring twenty to twenty-five seconds' exposure; and even though this can be in a great measure overcome by commencing in a weak developer, it requires a very nice discrimination, which experience alone can give, to tell whether to change for a stronger or not. 2. Fogging, which I have always attributed to carelessness, light, stray silver, etc. And here I might say something in regard to the light for development which I am now using. I think it the least complicated of anything I have ever seen in print, and I find it to be perfectly safe. I am using the plunge-bath, and at present have only one, which sits on a shelf running along the side of my dark-room; on one side is a common kerosene lamp, and on the other plate-holders, plates, and tray, in which I moisten the plates before plunging them into the bath. I have the tray between the standards that support the bath-holder; so, you see, all the light must pass through the yellow solution before reaching the plate. After moistening the plate, turn down the lamp, and plunge quickly into the bath, moving it briskly for a short time. The solution again becomes a protection, and you may throw a cloth over, and, as I have done, go make another sitting, if pressed for time, being sure the exposure is about right, or a little short.

3. I am very confident that I could work them to the exclusion of wet-plates.

4. In point of expression, and in groups, they admit of effects I would hardly attempt with my ordinary wet-plates; and I think from the fact of allowing the use of smaller diaphragms, that more depth of focus, and consequently a more artistic arrangement, can be obtained.

5. My patrons don't make any distinction, except expressing pleasure at the shortness of exposure. They don't seem to like failures any better for being made on dry-plates.

6. Let us teach our patrons respect for our opinions by showing them that our opinions are honest ones; not by lofty speech or bearing, but by our work. When a man takes a

"hobby," and tries to ride it over all, he wants to be very sure of his foundation, or he will, in all probability, have to dismount. Alas! how many frailties are disclosed in the name of the artistic. I expect it would be safe to say that we are appreciated proportionally as much as we deserve, and though the public may not always be just critics, on the whole I believe it to be a pretty safe guide; and if your pictures are not liked as well as your neighbor's, there is a valid reason for it. Look to it that the fault is not yours.

7. My business has steadily increased ever since I came here, in 1875, and I have every confidence in the future.

In conclusion, I would like to say a word about the Photographers' Association of America Convention.

I expect that a great number who went to New York, went with the expectation of receiving "illumination" on the subject of the artistic. Not merely head and shoulder effects, but full figures ("with accessories thrown in," and being sure they alight in the right place), groups, etc. I think it would be a good plan to appropriate a little money to that purpose, and curtail somewhere else accordingly. I mean, pay some able man to handle the subject.

E. B. CORE,
Lincoln, Ill.

DEAR SIR: Pursuant to your request for information in regard to emulsion, I will proceed to give you my experience, as follows:

To the first I will say, that my experience has not covered a great length of time, but it has been sufficient, however, to highly gratify me with the result. I find no trouble whatever in working the plates. The difficulties that I met with at first, arose principally from actinic light in the dark-room, camera-box, etc., which must be looked after thoroughly, or failure will certainly follow. I occasionally find a thin veiling of blue fog on the film, which entirely disappears on intensification, which I produce with iodide of potassium, bichloride of mercury, and hyposulphite of soda. I find this the most reliable of any I have used, and have given it the preference of all others. I use the ferrous-oxalate developer, which

I prefer to the alkaline, although it behooves every dry-plate worker to make himself familiar with both, as I find some brands of plates work better with the latter, and *vice versa*. I wish to speak a word of praise here for the Eastman plate, which I work exclusively. Although my experience with different brands has been somewhat limited, I am free to say that these plates are the best I have yet seen; in fact, they leave little to be desired. The advantages from the successful working of this process are obvious to all, and, therefore, it is useless to enumerate them.

2. The failures are now, happily, few and far between. Most are caused by white light; some by making the oxalate too strong with iron, thereby causing a red precipitate when the development is partly accomplished, and rendering the negative spotted and unfit for use, and the blue veil above alluded to, which, by the way, I don't consider a failure, and rarely, very rarely a defective plate. I think the time is yet to come which will witness a process entirely free from failures, therefore they must be expected more or less.

3. Yes. I think it requires no prophetic vision to see that at no distant day the bath and collodion will be among the things that were; but with all the advantages of gelatine the bath and collodion are superior in some respects. One of these is the despatch with which a negative may be dried, varnished, and a proof submitted, which is a matter of no little importance, especially if you are hurried, or the subject resides out of town.

4. I think more artistic effects can be produced, as they give almost unlimited latitude to the arrangement of groups, light, lenses, etc., and dispense almost entirely with the head-rest, which every one will allow is not an artistic feature to be seen protruding, be it ever so little, from any picture.

5. My patrons speak in the highest terms of praise and admiration of the new process, and are very much pleased to get the baby's picture taken with so little trouble and annoyance.

6. I think the public, as a rule, appreciate progress and advancement in whatever

direction it may tend, as they very often allude to the improvements of late years in terms that leave no doubt of their meaning; but they grow more exacting, of course, which is a necessary sequence of education.

7. From present indications, I can see nothing to prevent a good business for the current year; in fact, there is no reason why photographers should not come in for their share of the prosperous times that are now upon the country. As a summing up, I will say that I feel too much praise cannot be given to the earnest and scientific workers who have given us this beautiful process, which is such a grand success, aye, a triumph, for no longer do babies have terrors for us; and we view with complacency, and even pleasure, the most difficult subjects. To disabuse my article of the color of undue enthusiasm, I send you some examples of my work with emulsion, which I think you will concede will compare favorably with collodion. They were all made with the extra rapid plate, and without the use of head-rests. The exposure in any of them will not extend over two seconds, except in the group, which was made late in the afternoon of a very dark day, when success with the wet process would have been utterly out of the question. I find these plates come fully up to the claims of rapidity that are made for them, although the price may preclude them from coming into more general use. Still, upon a careful study of the formula of preparing them, they are as low as can be expected for reliable productions. Hoping the current year will witness greater achievements in the working of this truly wonderful process, I beg to subscribe myself,

Yours, fraternally, P. C. WESTON,
Bangor, Me.

In answer to your circular letter in December number, will say in reply:

1. My experience with dry-plates—I have worked them successfully since last May; have used forty-six dozen of them, all sizes.

2. My failures have been from over-exposure and underdevelopment at first, but have no trouble now. Used at first Eastman's; now use Cramer & Norden's plates successfully; no trouble with them.

3. Yes; do not use wet-plates at all.
4. Decidedly, yes.
5. Yes, they are delighted with them.
6. I think that they are.
7. The prospects are the brightest for me that ever was. Shall double my trade in 1882.
8. I can only say this: I find no trouble with working them. I use ferrous-oxalate developer three to one. Made my oxalic acid. Use judgment in mixing developer, according to exposure; that is all I can say. If this answers your query, I shall be satisfied. I am dry-plates clear through, since I was at the Convention last August.

Yours truly, THOS. PALETHORPE,
Greenville, Mich.

GERMAN CORRESPONDENCE.

Light-Tracing Process with Prussian Blue—Increasing Sensitiveness of Emulsion Plates by Carbonate of Sodium—On Developers for Dry-Plates.

THE other day I tested an interesting light-tracing process, which gives a positive directly from a positive picture, in beautiful blue color (Prussian blue), and which differs materially from the common process (citrate of iron and ammonia and red prussiate of potash) which produces a negative picture. As in America many copies are made from drawings in the printing frames without the help of the camera, this process will prove interesting to many, no doubt. The method is not new, but published in this improved form by Pizzighelli. The following three solutions are prepared in advance and kept on hand:

1, Gum arabic, 20 parts to 100 parts water; 2, citrate of iron and ammonia, 50 parts to water 100 parts; 3, chloride of iron, 50 parts to water 100 parts. These solutions, if kept in closed vessels, will remain unchanged for several weeks with the exception of the solution of gum, which is apt to become sour in a few days. When desired for use, mix solution of gum arabic 20 c.c.m., solution of citrate of iron and ammonia 8 c.c.m., and solution of chloride of iron 5 c.c.m., in rotation as they are cited. The mixture is at first a thin liquid, but thickens soon and becomes viscous, and in a

couple of hours the matter is rendered turbid, in which condition it loses its viscosity and assumes the consistency of soft butter. In this condition the mixture is, according to my experience, best adapted for preparing the paper and will keep in the dark several days without deteriorating in the least. The paper (a well-sized drawing-paper) is placed upon a drawing-board, where it must be immovably fixed on two sides by tacks or wooden fasteners, as in the following laying on of the solution the extreme viscosity of the latter causes so much strain that the edges are easily torn, and wrinkles and breaks in the paper are caused if the drawing-paper be not securely fastened down. Each break in the paper allows the sensitive solution to penetrate into the paper matter, which is manifested in the development by a blue line. The sensitive mixture is now poured into a flat cup and laid on with a broad flat bristle brush, as equally and quickly as possible, taking care not to make the layer too thick. As soon as it is noticed that the brush begins to stick to the paper, the surface is equalized with a brush kept for that purpose. This operation can take place in subdued light. The prepared paper is quickly dried in a warm, dark place, pressed flat for use and kept secure from light and moisture. The printing, done in a common printing frame from a positive upon glass, or upon tracing paper, is to be considered as finished with the appearance of a distinctly perceptible yellow image upon darker ground, and lasts in the sun not more than five to ten minutes, and in the shade, fifteen minutes and more, according to circumstances. The printed picture is placed upon a drawing-board and the visible drawing is spread over, line by line, quickly and lightly with an otter's hair pencil with the following developing solution: Yellow prussiate of potash 20 parts to water 100 parts. The picture appears at the time in dark blue color. As soon as all details have appeared it is washed at once under the tap until free from all traces of developer, in which manipulation (as well as in developing) it is necessary to avoid moistening the back, because slight traces of yellow prussiate of potash, penetrating from the back of the paper,

cause blue spots, distinguishable also from the front side. After washing—which need not take very long—the picture is immersed in a solution of 1 part muriatic acid in 10 parts water and spread over with a delicate camel's hair pencil, whereby the blue ground disappears and the ground becomes white, so that the lines in the copy stand out clear and clean. The picture is then washed to remove the acid. The process works very fast, so that, in fact, a few hours are sufficient to finish a picture even on an only moderately bright day.

I wrote you recently about increasing the sensitiveness of gelatine plates by carbonate of sodium, and I have found since, after continued experimenting, that plates showing tendency to fog are less suited for treatment with carbonate of soda. In any case the tendency is increased thereby. I tried further to wash the plates after the bath in carbonate of soda 1:100 and then to dry. I found that such plates had not become more sensitive, but only more intense, *i. e.*, made pictures of materially greater strength, which in certain cases is also of advantage, for under some circumstances a sensitive, but thin working emulsion is obtained (the most sensitive emulsions working in most cases thin) and in such a case an expedient to increase the intensity without danger of formation of veil is very agreeable to have. I must remark, however, that the sensitizing properties of the carbonate of soda come into play much more energetically in plates of moderate sensitiveness (about one and a half times as sensitive as wet plates) than in plates of the highest sensitiveness. These experiments were made with plates of my emulsion, which dry very quickly after the immersion in the solution of soda. Gelatine plates I did not test. The tedious drying of the same after immersion in soda solution is apt to decide many not to use the process with gelatine plates.

The question, which developer is the best for gelatine plates, has of late been much agitated again. Here, generally, the ferrous-oxalate developer is looked upon with favor. It is remarkable that this developer acts by no means so well upon my emulsion as it does upon gelatine emulsion. It is to be re-

membered that my emulsion requires considerably more bromide of potassium in the developer than gelatine plates, and that, moreover, it acts quite differently in development from the other—carbonate of soda, for instance, being of little use as developer for gelatine plates, while upon my emulsion it acts excellently. As a rule, I prefer now the pyro-developer, which has only the disagreeable drawback of forming defects very easily if the ammonia is not of the requisite strength—100 c.c. of the same must weigh 91 grammes—if it is heavier, it is too weak.

Very truly yours,

Dr. H. W. VOGEL.

BERLIN, January 30th, 1882.

FRENCH CORRESPONDENCE.

Substitution of Zinc for Copper-plates in Making Etchings—Improvement in the Topo-engraving Process, by Captain Bing—Obtaining a Positive or a Negative from Similar Negatives, by Captain Bing—Examinations for the Diploma of Capacity to be given to Photographic Operators—Oscillating Dish of Mr. Chardon—Strengthening the Backgrounds of Negatives of Line Subjects—Exhibition of the Central Union of Decorative Arts.

ETCHINGS are generally made on copper-plates, which are rather expensive. Nothing is easier than to substitute for these zinc-plates, costing much less. Take zinc, from one to two millimetres ($\frac{1}{24}$ to $\frac{1}{12}$ of an inch) thick, well planished, and cleaned in water acidulated with nitric acid at 3 per cent. Then, after having rinsed in water, plunge in a bath of double cyanide of copper and potassium. This bath is absolutely neutral, and produces, without the aid of the battery, a coating on the zinc sufficient for the purpose. The zinc-plate is allowed to remain in the copper bath for about fifteen or twenty minutes, and is then rinsed in water, so as to remove all trace of the cyanide bath. The plate is now carefully wiped, and when perfectly dry, covered with bichromatized albumen—formula given in our preceding letter. All the ulterior operations are the same as those given for the Gobert process, and the biting is obtained

by means of perchloride of iron, which acts not only on the copper, but also on the zinc.

To make the copper bath, dissolve sulphate of copper to saturation in water, and add cyanide of potassium in lumps until the greenish-blue precipitate which has been formed is dissolved. When the liquid becomes nearly white, filter, and you have a bath very suitable for coating zinc with copper.

Captain Bing, of whom we have already spoken, in connection with his experiments with marine glue, and on the transformation of negatives into positives, has invented a process for improving the topo-engraving method of Commander de la Noë, already described by us. This, it will be remembered, consists of a process of printing on zinc by means of a roller and lithographic ink. The lines faintly cut in the zinc take up the ink and produce the effect of a copper-plate print. Captain Bing arrives at this result in a more simple way: A plate covered with bitumen is exposed to the light for a sufficient time, then treated with a solvent of the bitumen, which removes all portions of this body not rendered insoluble by the light. The plate, well washed and dried, is then gummed and inked as if it were to be used in making a *lithographic* print. This being done, clean with care in a bath of water acidulated with nitric acid at 3 per cent., and immerse for fifteen minutes in the copper bath mentioned above. After the coating is obtained, wash, dry, with the aid of heat, and immerse in a bath of pure benzine, which dissolves the fatty ink and the bitumen. The zinc is everywhere uncovered where it had been protected by the bitumen. The action of the solvent should be aided by means of a soft brush. This being done, wash in several waters, and immerse the plate in a bath of water acidulated with nitric acid at 3 per cent. This liquid acts for about a minute, and bites the lines where the zinc is exposed, without acting with sufficient energy on the copper to dissolve it. In a minute, or a minute and a half at most, remove the plate from the biting bath, rinse in water, dry, and rub with pure, clean benzine. Finally, coat with a solution of bitumen in benzine at 6 or 8 per cent. This solution fills all the

sunken lines. When dry, the plate is placed on a metallic surface, covered, very evenly, with black ink, and the bitumen side resting on the ink. With a little pressure the ink adheres everywhere, except where the sunken lines are found. Now expose to the light long enough to render the bitumen insoluble.

The printers' ink protects the other portions. The plate is now placed on a very plane surface, and rubbed with a cube of metal bearing against bibulous paper impregnated with essence of turpentine. Rub until all the zinc on which there are no sunken lines is rendered completely clean. The plate is now passed in gummed water, and is ready for printing.

It is thus possible to make on sheets of zinc a half a millimetre thick, topo-engraving plates, giving, without injury, a great number of prints. These prints, moreover, are very fine, as the line being but slightly sunken, the plate is not easily injured, and we realize the double advantage of a lithographic impression as fine as a copper-plate print. It is useless to insist upon the importance of such a process. All the operations were executed in our presence, and we can testify to their rapidity, precision, and practical application.

Captain Bing, in another direction, has made some interesting experiments, having for their object the direct reproduction by contact of a positive or negative from similar clichés. That is to say, that a positive gives a positive, and the negative a negative, in the same manner as is seen in the powder processes. In the present case, gelatino-bromide plates simply are used. One of these plates is immersed for ten minutes in a bichromate of potash bath at 4 per cent., and allowed to dry in a well-ventilated and dark place. When dry, it is exposed to light on the positive or negative cliché, from which a counter-print is desired. By means of a photometer, follow the action of the light, which should produce on the bichromatized gelatino-bromized film an image slightly visible, giving, in the brown color of the oxide of chrome, all the details, all the half-tones of the cliché. The plate is now carried to the operating-room, which is lighted by red glass, and allowed to re-

main for a moment in ordinary water, which rids it of all the free bichromate. Now, place on a black ground, the gelatine side uppermost, and expose to diffused daylight for about a second, and then place in the ordinary oxalate of iron developing bath. Gradually an image will be developed exactly similar to the negative used; positive, if the negative was positive. The development is pushed until satisfactory, and the plate is then washed and fixed with hyposulphite of soda. Fixing in this case is rather long, as the solvent has to penetrate the portions in which the gelatine, by the action of light, has been made nearly impervious to water. This gives rise to a raising of the whole film. To remedy this, we have advised Captain Bing to expose the gelatine film on the reverse side before placing it on the negative. After this exposure, the action of the light on the posterior portion of the film is sufficient, and there is no longer any detachment to be feared, as has been verified by Captain Bing. The advantage of a process like this, which enables us to obtain reversed negatives without being obliged to resort to a pellicular reversing, is easy to understand, and it is sometimes useful to have reversed negatives of precisely the same size as the originals. In operating in this manner, no shrinkage, nor any change in the size of the counter-print is to be feared. Moreover, the principle being established, many other applications of it will doubtless be made. The important point in photography is to throw out principles of this kind, the applications will come afterwards.

We add to our letter a proof-sheet of the rules for the examinations just organized by the syndical chamber of photography to confer diplomas on photographic operators. As will be seen by the regulations, applicants may select special branches, and, in this case, will only be required to answer questions pertaining to the general knowledge of photography.

We may indulge in the hope that these examinations will meet with favor, and that they will contribute to raise the status of photographic art, and improve the standing of the operating class, which among many honest workers counts some frauds and ad-

venturers, the number of which, happily, is constantly decreasing.

Mr. A. Chardon has got an electrician to make for him an oscillating dish put in motion by electricity. This very simple little appliance will render great service in the operations of developing gelatine plates, the biting of plates to be engraved, and, in a word, in all cases where an oscillating motion is necessary. The movement is given to the dish by means of a Trouvé motor, acted upon by a simple element of Daniell.

Oftentimes it is necessary to energetically strengthen the blacks in the clichés of prints, of black lines on white grounds. Here is a formula capable of giving this result. The cliché becomes red and absolutely impervious to the luminous rays, except where the white lines exist.

Make the following solution :

Water,	1700 parts.
Red Prussiate of Potash,	65 "
Pure Nitrate of Lead,	100 "
Filter.	

The cliché, a weak print, is fixed and then well washed. It is essential to thoroughly wash, either before using the above bath or afterwards. After it has passed through the above solution and is well washed, it is immersed in another solution composed as follows :

Yellow Chromate of Potash,	8 parts.
Water,	100 "
Liquid Ammonia,	35 "

Now again thoroughly wash, and we obtain a cliché with a red background, and absolutely impervious to the luminous rays.

The initiatory committee to which is intrusted photography at the Exhibition of the Central Union of Decorative Arts, has recently met. It has appointed its board of managers, and decided upon a circular which is to be sent to the whole photographic world. This International Exhibition will take place in August, 1882, and will embrace a photographic section, but of artistic work alone, without regard to the process used. None others will be admitted. This excludes the ordinary portrait. The decorative portrait, however, will be admitted, as well as all reproductions of art subjects. In a word, it

will be an artistic exhibition, and in no manner scientific. Nevertheless, there will be admitted a collection of documents or products giving a series of transformations and operations from the raw material used until the completion of the work. In this special department of the exhibition, forming a kind of operating gallery, will therefore be found the scientific elements necessary to a knowledge of the principal points of photography. We hope to receive from the best American photographers some fine specimens of their art.

All the documents pertaining to this exhibition will be sent by us to the *Philadelphia Photographer* for the benefit of its subscribers and readers.

LEON VIDAL.

PARIS, February 1st, 1882.

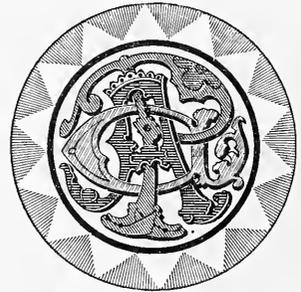
NEWS FROM EGYPT.

A PLEASANT surprise awaited us on our entrance into the editorial sanctum a few mornings ago, in the shape of a letter and paper from our friend, Edward L. Wilson, Esq. The letter bears the date of January 6th, and was written at the Grand Hotel Abbat, Alexandria. Among the many interesting things contained therein we are told of "strange experiences with the camera in this curious city." The journal accompanying the letter is entitled *Journal des Etrangers*, a Cairo publication, containing the lists of arrivals at the various hotels, and a *resume* of *hige-life*, as the French gentleman who writes these articles somewhat quaintly puts it.

We notice the names of Messrs. Wilson and W. H. Rau at the head of one of the hotels lists, and in running over the other columns of the journal, cannot fail to congratulate our friends on their being in the midst of so much that is interesting. A set of prize races and two admirable concerts of instrumental music, besides grand dinners of state, and benefit performances at the Cairo theatre for the sufferers by the late fire in Vienna, are all reported on one page of this brisk little sheet, the others being devoted mainly to advertisements, and lists of objects of interest, which make us long to be there, and

see and enjoy them. Very few Americans are in Cairo, judging, so far as we can, from this one number, but we find the name of Mr. Arthur Sullivan, the well-known composer of "Pinafore," and other operettas, and who, although English by birth, we may now almost claim as one of ourselves, so well do we feel acquainted with his various works. Other letters received speak of having a glorious time and excellent success, followed by the kind wish that the whole Society could be there with their cameras. We can speak for many who would echo the wish. And last, but not least, we are promised a series of letters descriptive of the scenes passed through, and much besides. The first one will be found on page 65.

PERTAINING TO THE



TO THE MEMBERS OF THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA AND OTHERS.

GENTLEMEN: Time waits for no one. Every day brings us nearer to the Annual Convention of the Photographers' Association of America, to be held on the 8th of August next, at Indianapolis.

Now, this is the proper time to make ready your exhibit that you intend to show. Fine work requires time and study.

We have made arrangements for some six thousand square feet of wall-space, and it is the earnest desire of the Executive Committee and officers of the Association to have the same filled with the choicest specimens of photography from every State in the United States. Several European and Canadian photographers have promised to send work from their studios, that will be an attraction in itself and worthy of close study.

The officers desire, further, that all cabinet and panel photographs should be exhibited without glass or frames, in order that the general aspect may be more pleasing than the thousand-and-one different patterns of frames could possibly produce.

To the photographers who are not members of this Association, I would earnestly request that you join now, and get ready to be present at Indianapolis. You will not regret the expense you undergo in attending the Convention, for it will make you produce better work. You will learn more during that week from observation and attending the meetings than you could during a whole year should you stay at home.

Those that will attend the next annual convention will be pleasantly surprised by the many good things that will be brought before the meetings.

Fraternal yours,

JOSHUA SMITH,

President P. A. of A.

MISCELLANEOUS.

WE regret that the very interesting article on "Magic Lantern Transparencies," which appeared in last month's issue, was not credited, as it should have been, to the *Photographic Amateur* (Scovill Manufacturing Company, New York). We always mean to be honest in these matters; and in this case, take pleasure in making amends to the best of our ability.

WE had hoped to present our readers this month with an article from Mr. John Carbutt, the well-known manufacturer of the Keystone Gelatine Plates, on ferrous-oxalate development. A letter just received from him, however, begs for a little more time, owing to large orders for plates keeping him busy until late in the night. We shall look forward with pleasure to a communication from a gentleman so well versed in the details of gelatine photography, and meantime congratulate him on the well-deserved success of his plates.

MR. ALVA PEARSALL, of Brooklyn, is to be congratulated on his continued success with portraits and groups direct from life on very large plates. We have never

before seen a size of 24 x 19 inches showing the sharpness, detail, and brilliancy of a cabinet or a carte as these superb works of Mr. Pearsall do. He has demonstrated the entire practicability of making first-class photographic work, as well as finely composed pictures (the latter by far the more valuable in our eyes) of a size not hitherto attempted, so far as we know.

MR. FRANK ROBBINS, of Oil City, Pa., has established a branch house in Bradford. Every modern appliance will be found in his galleries, among others a solar camera and complete set of instantaneous apparatus.

MR. O. PIERRE HAVENS, whose remarks on collodion will be found in another column, has been appointed "photographic editor" of the New York *Daily Graphic*.

WE have received a local paper giving a very flattering notice of Mr. H. E. Noble's portrait studio in Lincoln, Iowa. The high character of his work is also favorably mentioned.

MESSRS. BELLSMITH BROTHERS, of Buffalo, have completed their arrangements for the use of the electric light in portraiture. A feature that will certainly recommend itself is, that it will afford ladies having elegant opera or masquerade suits an opportunity to have their portraits made while on their way to the ball or theatre.

MR. CHARLES STACEY, photographer, 57 Main Street, Lockport, N. Y., received from Buffalo an elegant photograph album, with openings for 200 photographs. Mr. Stacey has photographs of nearly all the members of John Hodge Lodge, A. O. U. W., of this city, and after placing them in the album, will present it to the lodge.

The black morocco cover bears the following inscription in gold:

PRESENTED TO
JOHN HODGE LODGE, No. 68, A. O. U. W.,
BY
CHARLES A. STACEY, PHOTOGRAPHER,
Lockport, N. Y., 1882.

Mr. Stacey has also completed the photographs of the members of Protection Hook and Ladder Company No. 1, enclosing them in an elegant gilt case case, 38 x 44. They are on exhibition at his rooms.

A LETTER which has just reached us, asking for information on some very elementary points in the ordinary process of silver-printing, has led us to seriously reflect whether there was any way in which explanations and instructions could be more clearly given by us. When we look at the back numbers of this journal, however, we find articles of all kinds bearing upon this subject, and written in a style to suit, as we believe, all classes of readers, except those who habitually pass over practical articles, and rely upon themselves for all the knowledge they may possess upon these points.

The letter of which we speak, enclosed two untuned proofs, badly measlesed, red, and bronzed in the deep shadows. The paper had been stored in a cellar, was floated on a sixty-grain bath, and fumed for *seventy minutes*—an unheard-of time, to our ideas. Further, and for what reason we cannot tell, a large pail of water was kept in the fuming-box; and lastly, we are led to believe that the box was not tight enough to keep the ammonia from escaping, so that, in all probability, the silver solution was acted on by the fumes. Now, we are well aware of the fact that some printers are in the habit of laying out the paper in a damp cellar for some hours previous to floating, saying that the moisture so imbibed makes the paper "take the silver more easily." This is doubtless true, and supposing that we found ourselves compelled to print on a sample of paper that was already old, dried up, and horny before it reached us, and that had been stored, say in a hot cock-loft or garret after it reached us, and if we were working in some exceptionally dry climate, we should probably adopt the same course, and expect to benefit by it; but in most cases, we believe it to be entirely unnecessary and even hurtful. If the paper will not take the silver, it generally goes to show that the bath is too strong. Sometimes it will be well to gently rub off the albumenized surface with a ball of cotton or clean chamois skin, and this treatment, together with a bath at the proper strength, and containing perhaps ten per cent. of alcohol, will certainly stop all trouble of this kind. Dampness, at the time of fuming, has been emphatically condemned in the columns of

this journal more than once. So careful are we in our own practice upon this point, that we sometimes dry the paper a second time. Good paper ought not to require more than ten or fifteen minutes' fuming, if the box is tight—and it always ought to be—a longer time only serving to let the paper get damp again, and give prints with the peculiar metallic and "sunk in" appearance so well known to experienced printers. Ingenious plans have been proposed by some of the foreign operators for using a mixture, say of sal-ammoniac and lime, or something of the sort, so that the fumes will come off in a perfectly dry state. They are troublesome, however, and not necessary if due care be bestowed, as we have mentioned. We cannot but feel that if the writer of our letter had consulted our back numbers, he would have found the "stitch in time."

BUSINESS SALE.—Messrs. Bertram & Colwell, No. 85 Pearl Street, Buffalo, have sold their stock of photographic supplies to David Tucker & Co., 410 and 412 Main Street, who have the largest stock and greatest variety of goods pertaining to the photographic art west of New York City.

MESSRS. FOSNOT and HUNTER, Keosauqua, Iowa. Your kind letter with enclosure received. Thanks.

We have just received the *Photographers' Bureau of Information*, published monthly, by Douglass, Thompson & Co., 229 and 231 State St., Chicago.

COMPELLED TO LIE OVER.—A communication from Mr. Craig, of Peterboro, Canada, on blisters.

REPORTS OF THE U. S. COMMISSIONERS

TO THE PARIS UNIVERSAL EXPOSITION,
1878.

We have received from Hon. James G. Blaine, Secretary of State, in five handsomely bound volumes, the Reports named above.

They are crammed full of interest to all lovers of industry and art (accompanied by many fine illustrations), but, of course, the section which most attracts and interests us

is the report of Commissioner Story on the Fine Arts, which covers 182 pages of Volume II. It reviews every department of the fine arts of all the nations represented, and is exceedingly instructive and enjoyable. We hope to refer to it again in order to share its lessons with our readers, but only have opportunity now to quote a few just strictures upon our government for its apathy, as compared with all foreign governments, in encouraging the fine arts. Mr. Story calls Uncle Sam "Penny wise and pound foolish," and among other good things, says: "Small consideration has ever been paid by America to her own achievements in the fine arts in any international exhibition, but this is the first in which our country has formally excluded sculpture. With most nations, the department of the fine arts has ever been looked upon as the flower of their exhibition. No pains have been spared to render it attractive; no expense refused to give it importance and completeness. It is here that the highest laurels have been won, and in the success and distinction of their artists all other nations have felt the warmest interest and pride. We alone have treated art with indifference, if not contempt—wholly neglected its claims, and sternly refused any outlay of money to advance its interests. What we have done has been incompletely done and grudgingly done.

"But, without entering here into details, it may be said in general that there is no government in Europe which has considered itself absolved from all duties towards artists, and none which has not acknowledged the claims of art, and shown a generous and liberal spirit in advancing its interests. Not only the first-class powers of France, England, Germany, Austria, and Italy, but all the smaller countries, without exception, have equally felt it to be their duty, their interest, and their pride to develop national art, encourage national artists, establish museums and academies, and gather together, for the study and delight of all, collections of works of the past and present by the ablest masters in sculpture and painting and the sister arts. America is the only nation, which, as a nation, has done nothing.

"As a nation, we do not profess to look down upon art; at least, we utterly neglect it. It forms no portion of our education, and in the public representative bodies of our country a lamentable ignorance prevails. There is neither knowledge nor good taste in the patronage of the government. No great national academy or museum of art exists to confer honors and rewards, to educate students, or to improve the public taste; all the academies and museums that exist are private and local in their character, limited in their means, and unsupported by the nation. The American artist, therefore, having but restricted opportunities to educate himself in his own country, is forced to expatriate himself for the purpose of study. After he has to a certain extent accomplished himself in his art, if he returns to his own country he meets at every turn but obstacles and disappointments. The patronage of the government is for the most part in the hands of the ignorant, and it is but too often the prize of successful lobbying, from which the true artist withdraws in shame.

"If we are a great country, as justly we claim to be, let us behave like a great country. Is it creditable for us, with all our wealth and prosperity, to be without a great national museum and academy of art—such as is to be found in every great capital of Europe? How can we expect to take rank in art with the great nations of Europe, when neither our nation itself nor any State or city in the Union possesses a gallery of art of which any second-rate government of Europe would not be ashamed? While we have nothing, can we without mortification look at the magnificent collections abroad and consider the munificent manner in which they are supported and constantly enriched by public grants?"

These are queries which only more enterprise can satisfy.

One of the curiosities of the report is found on page 44, where are given quotations from some English critics of Mr. Burne-Jones's famed picture of "Pygmalion," and which shows, what we all so often see, that there may be

"Two ways of seeing a picture."

"Let us now see what these discordant voices have to say about Mr. Burne-Jones's 'Pygmalion' series. The following criticisms are worth comparing carefully:

"[*Spectator*.]

"No description of which we are capable can convey in any adequate degree the intense beauty of this work. As in all supreme painting, we lose sight altogether of the artist in the vision he has created for us, and it needs a severe effort of the mind to bring itself back to the consideration of the marvellous skill which is here displayed. But when this is done we hardly know upon what to bestow our greatest admiration, whether upon the soft effulgence of light in which the picture is enveloped, the little bit of azure sky on which Venus stands, and the delicate iridescence of the doves' plumage; on the stately strength of divine beauty and power in her figure, the clinging dependence of that of Galatea, or on the expression of the living statue, which is probably the most wonderful painting of all—surprise, joy and helplessness struggling together in one woman's face."

"[*Illustrated News*.]

"We are assured that in these pictures there are latent meanings as to the rise, growth, and fruition of "passion" which associates them with those productions of the minor poets of the day, which forms the "supersensuous," or rather, we should say, the ultra-sensual, school—a school which, in its worst development, is the morbid outcome of weakly, overwrought physique—which every man who respects his manhood and every woman who values her honor must regard with disgust, and would destroy everything of value in the national character. For our part, we see merely mawkish sentiment, not "passion," in these wan, haggard faces—these limp languors, this hysterical tension—together with mediæval dilettanteism, for there is nothing whatever of Greek spirit or character in the series."

"The *Spectator* critic, it will be seen, goes nearly into hysterics; the other gentleman is affected in a very different way. We must say that for gush, tears, and bosh generally, the 'Spectator' man throws all his fellow-laborers in the field of art far into the shade."

Editor's Table.

THOSE of our correspondents who may not have been noticed in our columns this month, will please overlook the omission, and ascribe it to the unusual press of matter, and lengthy articles, which could not lie over. It need scarcely be said that there are times when it is impossible to do full justice to all, much as we wish to.

THE NEW SCIENTIFIC AMERICAN OFFICES.—We are glad to announce that the *Scientific American* came out of the late fire in New York, like the fabled Phoenix, with renewed life. The subscription lists, account books, patent records, patent drawings, and correspondence were preserved in massive fire-proof safes. The printing of the *Scientific American* and *Supplement* was done in another building; consequently, the types, plates, presses, paper, etc., were unharmed, and no interruption of business was occasioned.

The new *Scientific American* offices are located

at 261 Broadway, corner of Warren Street, a very central and excellent situation. The new building fronts towards the City Hall, the Court House, and the New Post-office—a magnificent structure, which cost eight millions to build. Nearly opposite, and a few hundred feet distant from the *Scientific American* offices, is the entrance to the great Suspension Bridge over the East River, between New York and Brooklyn, which required ten years to construct and twenty millions of dollars to pay for. In front, also, of the *Scientific American* is the City Hall Park and Printing House Square, with its statue of BENJAMIN FRANKLIN, and the homes of eminent editors and newspapers, such as the *New York Tribune*, *New York Times*, *New York Sun*, *New York World*, *New York Herald*, *Mail* and *Express*, *Zeitung*, and others.

The new *Scientific American* offices are admirably chosen for active business. Here, in

addition to the issuing of their interesting publications, Messrs. MUNN & Co., aided by trained examiners and draughtsmen, prepare specifications and drawings for American and Foreign patents. If any of our readers should happen to make a new discovery (we hope every one of them may do so, and gain a fortune), they have only to drop a line to MUNN & Co., 261 Broadway, New York, who will reply at once, without charge, stating whether the invention is probably novel and patentable. A handbook of instructions, with full particulars, will also be sent, free. Messrs. MUNN & Co. have had over thirty-five years' experience in the business.

PICTURES RECEIVED.—From Mr. F. C. WESTON, Bangor, Me., cabinet cards and cartes, showing care and skill, particularly in quick subjects, infants, dogs, etc. May we suggest somewhat longer exposures on dark subjects—velvet coats and seal-skin sacsques? From Mrs. R. MAYNARD, Victoria, British Columbia, half a dozen cabinets, and a composite entitled "A few of the Gems of British Columbia." "Happy is the man that hath his quiver full of them," occurs to us as we look over this collection of children's faces, and remark all ages from infancy to maidenhood and early manhood. The picture is ably manipulated, and contains more faces than we should care to be compelled to count. Some of the cabinets are also composites, differently arranged, but showing excellent taste and manipulation, as also do the single figures which complete this interesting collection. Mr. RAY D. CHAPMAN, 153 Eighth Avenue, New York, asks for criticisms on one of his "Shaded Imperial" cabinets, which he says was made under a top-light, unassisted by anything except a small reflector. We do not remember to have seen a portrait more happily lighted than this one. That the reflector has been used with skill, is evident from the absence of harsh shadow on the forehead under the broad brim of the hat, which, again, has been well illuminated by the top-light, as well as the dark fur collar below, which just shades off into the vignette sufficiently to make a nice half-tone, and relieve the full shadows under the chin and around the ear. We congratulate Mr. CHAPMAN on his knowledge of lighting. Mr. CHAPMAN further, in answer to Mr. NARAMORE'S question in our last, as regards cleaning the skin from silver stains, suggests iodine, followed by dilute ammonia, not new, but the best agent he knows. The skin, after washing, has a grayish appearance, but it soon disappears. Mr. C. W. MORES, of Atlanta, Ga., who is already well

known to our readers as the maker of the negatives from which our phototypographs, by Ives' process, on the front cover of the September and February numbers were taken, has been awarded a gold medal by the International Cotton Exhibition recently held in that city. The photographs which took the prize hung on the walls of the Exhibition building, and were portraits of one of Atlanta's leading ladies, and of a child, both admirably posed and lighted. From Messrs. HEMUS & HANNA, Auckland, New Zealand, some exquisite cabinets. The large female heads are models of artistic pose and lighting. One in particular, with a hat trimmed with white feathers, and white lace collar, riveted our attention for a long time. We were, at first, inclined to call it a "Rembrandt," but find it hard to class such excellent work in the category of those effects (so-called) which have become almost synonymous with under-timing and chalky lights, in this rather too progressive age. The pictures have all the more value, in our eyes, coming, as they do from old friends and a far-away land. From Mr. J. A. PALMER, Aiken, S. C., amusing portraits of "Aesthetic Africans" in devout attitudes before the everlasting sunflower. We think we can remember ourselves in a similar attitude, in our earlier days, before this very flower, at a time when "aesthetes" were unknown. But was it not rather in anticipation of a surfeit of sweets from the seeds? From Mr. O. PIERRE HAVENS, Savannah, Ga., interesting and well-manipulated portraits, 7 x 9, and cabinet. We are glad to notice the increasing popularity of the thick black cards, with gilt bevelled edges, employed by Mr. HAVENS for the larger sizes. A practical point here is, to trim the print so as to leave the narrowest possible margin of black around the top and sides, to prevent a funereal look, and while this certainly increases the labor of the moulder, it adds very much to the effect. The space below the print may be left broad enough not to crowd the maker's name, which should stand in gilt letters. Mr. S. L. PLATT, whose description of a cooking-box for gelatine emulsion will be found on another page, sends us some praiseworthy examples of his efforts in this direction of gelatine work. "While others have been writing, I have been in the dark-room," he says. From Mr. P. P. SMITH, Ovid, Mich., well-posed cabinets on tasty mounts and cards, showing comparative trials of the Eastman dry-plate. One fully timed is endorsed, "Exposure fifteen seconds; so dark I could not see to focus." From Mr. H. BUTLER, Vermillion, Dakota, landscapes, etc.

WE are in receipt of wedding cards announcing the marriage of Miss MAMIE R. SCHOLTEN to Dr. CHARLES LABARGE, of St. Louis. The bride is the accomplished daughter of Mr. JOHN A. SCHOLTEN, a gentleman well known as the leading photographer of St. Louis. The *Republican*, January 8th, gives a full account of the brilliant affair. We hope the future life of the happy pair may be as bright as the festivities which celebrated their nuptials.

It is with much pain that we are compelled to notify our readers of the death of our old friend and subscriber, WILLY WALLACH, Esq. He succumbed to an attack of peritonitis, brought on, it is believed, by exposure to the inclement weather which prevailed in New York on January 31st, the day of the great fire in Park Row, when, as our readers probably know, his establishment was entirely destroyed by the flames. We understand that Mr. WALLACH's unremitting and noble efforts to save human life on this occasion left him no time to think of protecting himself in a proper manner. This was one more, and the last, of a long series of acts performed for the good of his fellow-man, for which he had become justly beloved. It would lead us too far to enumerate the various positions of honor and trust filled by this gentleman; but we may refer those of our readers who desire a fuller account than we can give to *Geyer's Stationer*, of February 16th, a publication which contains a full notice of his life, and of the funeral ceremonies at the Fifth Presbyterian Church, New York. The business will be conducted by his nephew, under the same name.

THE Photographic Society of Philadelphia will give a Lantern Exhibition on Tuesday evening, March 7th, at Association Hall. The photographs to be shown have been very carefully selected from the work of the members exclusively; a large number will be upon gelatine films.

This Exhibition, in point of excellence, bids fair to surpass any before made in this city; it undoubtedly will prove most attractive and interesting to the public generally, and to the friends of the Society in particular, as we are assured no effort has been spared to make it so.

The recent advances in photography will be illustrated in a manner highly creditable to the artistic taste and manipulative skill of the gentlemen composing the Society. We hope to give a detailed account of the Exhibition in our next issue. Having a number of tickets at our dis-

posal, we will be glad to share them with our readers, if they will call at our office, No. 914 Chestnut Street.

WE learn that our friend, Mr. W. E. BOWMAN, has been appointed postmaster at Ottawa, Illinois. He has not yet given up his gallery, but there is an opportunity here for some energetic man such as seldom occurs. The gallery has been established more than seventeen years, and requires the services of four assistants. Mr. BOWMAN has had an experience of twenty-five years in the business.

American Journal of Photography and Photographers' Price Current, published monthly by THOMAS H. McCOLLIN, 631 Arch Street, Philadelphia. We are pleased to see that Mr. McCOLLIN's publication, formerly known as *McCollin's Price Current of Photographic Goods*, has appeared in new and improved style with the opening of the new year. The January number is illustrated with an excellent cabinet vignette by HUSTED, of Philadelphia. The good taste and manipulation of this frontispiece are most creditable. We notice a number of practical articles, such as hints on retouching, platinotype printing, etc., besides a very modestly-worded leading article, which renders the after-contents all the more acceptable. The extremely low price of this useful little sheet (twenty-five cents per annum) will, without doubt, in addition to its practical character, ensure it a large number of subscribers.

WE promise our readers an interesting communication from Mr. W. CURTIS TAYLOR in our next issue on the different qualities of glass used for the windows of dark-rooms. Mr. TAYLOR has reason to believe that the trying ruby light as now used is not necessary, and that it even is more actinic than a good quality of orange-yellow.

THE edition of *Photographic Mosaics* for 1882 is now almost exhausted, notwithstanding the large increase in the number of copies printed. Those who have not purchased a copy should order early, before they are all gone. Paper cover, 50 cents.

IF you want to make the new "*Tadema*" picture buy ROBINSON'S *Pictorial Effect* and WILSON'S *Photographic*, and read up on art principles and their application to photography.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received by the 23d to *secure* insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.



February 18th, 1882.

LIST OF LATEST DESIGNS.

- No. 454. The Alman Interior.
- No. 456. The Algiers Conservatory.
- No. 457. The Mora Boudoir Panel (usual size 6 ft. x 8ft.). Very elaborate for full and three-quarter lengths.
- No. 459. Bristol Valley. Winding stream, quaint farmer's bridge. Sketched from nature. *Design copyrighted.*

New designs will appear each week from now till early summer, and Seavey will excel any of his former efforts in his exhibit at the coming convention at *Indianapolis.*

FOR SALE.—Photograph gallery. First-class instruments; good business in a community of 15,000 inhabitants. Reason, poor health. Will sell cheap for cash. Will rent or run on shares with a good, steady man. Address

GEORGE A. BERT,
New Brighton, Pa.

FOR SALE.—The oldest and best gallery in a town of over 4000 inhabitants, with good north light; a large assortment of backgrounds and accessories. The best of everything. Doing the best business in the town.

Address B. D. JACKSON,
Grand Rapids, Mich.

Warm weather and yellow paper. If you wish your paper to keep white, use the Peerless Extra Brilliant Pearl.

THE Rockwood Solar Printing Co.

Is organized with every possible advantage of capital, experience, solar cameras, artificial lights, etc., for the prompt execution of orders in the way of enlargements.

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Size.	Unmounted.	Mounted.
11 x 14 and under.....	\$1 00.....	\$1 50 ^c
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25 x 30)		
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SPECIAL NOTICE.

NO CHARGE FOR NEGATIVES.—As much depends upon the good printing qualities of a solar negative, we will make solar negatives from copies, *without charge*, if the originals are sent to us with the orders for enlargements.

All orders must be accompanied by the cash. Make all P. O. orders payable to

ROCKWOOD SOLAR PRINTING Co.,
17 Union Square, New York.

THE NEW GELATIN BROMIDE PAPER, first introduced by us, for instantaneous printing, enables us to send enlargements for tracings by return mail.

WE are making a new style cloud-ground; can be used for full- and half-length, also head and shoulder pictures. Our Japanese screens can be used with any interior ground. Send for samples, to be returned. W. C. CARLAND,
Manager Gouverneur Background Co.,
Gouverneur, N. Y.

THE NEW
EURYSCOPE.

TRY this new lens, and you will never buy any large portrait lenses. Voigtlander & Son's No. 7, and the smaller sizes, are very quick-acting, but as regard large-sized plates, the Euryscopes are far superior for groups, panel pictures, and large heads.



WILSON'S PHOTOGRAPHICS

Is the most complete, thorough, photo-instruction book ever published. Second thousand in store. See advertisements. \$4.

BACKGROUNDS.—Rustic grounds, 10 cents per square foot; exterior and interior 12, 15, and 20 cents per foot. A fine line of accessories always on hand. As our work is almost all painted to order, our line of samples are few but choice. Send for samples.

EXCELSIOR BACKGROUND Co.,
R. L. Cox, Secretary. Gouverneur, N. Y.

NOTICE OF REMOVAL.—Mrs. Clarke, Artist, late of 561 Druid Hill Avenue, Baltimore, begs to inform her friends and the photographic profession that she has removed to 2104 North 20th St., Philadelphia, Pa., where she will be happy to receive any commission for water-color painting. Terms, etc., on application to Mrs. Clarke, or to the office of the *Philadelphia Photographer*.

S. G. NIXON, Portrait Artist, 813 Arch Street, Philadelphia, Pa. Solar enlargements finished in crayon, water color, and Indian-ink in true artistic style, and the likeness and expression faithfully preserved. Also small colored and Indian-ink work, etc. Terms moderate.

NOTICE.

THE WONDERFUL EURYSCOPES and NEW PORTRAIT LENSES.

Just received, a large invoice of the above Lenses. Those who have not succeeded in getting them, will do well to send in their orders at once.

BENJAMIN FRENCH & Co.,
Boston.



WILSON'S PHOTOGRAPHICS

Shows you how to group and pose children naturally and gives fine examples of work. Read the partial index herein. \$4.

**Wilson's Photographics. Ready.
Price, \$4.00.**

UTICA, N. Y., February 4th, 1882.

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DEAR SIR: I received your retoucher all right, and have given it a good and thorough trial. I find it particularly good in using it on the larger sized heads, as it enables me to cover or soften more difficult spots and shadows that I could not do so readily with the ordinary method.

I have no doubt that your retoucher will be in great demand when its merits have become known, while the ease and simplicity of its whole arrangement is in its favor. There is nothing objectionable, in any form, in its construction and arrangement to prevent it becoming a favorite with all. Wishing you abundant success, etc.,

I am yours truly,

WALTER C. NORTH.

The price of the above-mentioned retoucher is \$15.00.

Warm weather and yellow paper. If you wish your paper to keep white, use the Peerless Extra Brilliant Pearl.

MAKE YOUR OWN ENLARGEMENTS.—The Patent Gem Solar Camera will print the finest enlargements on albumen, platinum, or plain paper. Only \$60. Send for reduced price-lists of larger instruments. D. A. WOODWARD, Baltimore, Md.

THE PLATINOTYPE PROCESS.—Having disposed of their printing business in New York, Willis & Clements will now devote the whole of their time to manufacturing chemicals for the process, and to instructing licensees in working. They have appointed Thos. H. McCollin, 631 Arch Street, Philadelphia, Sole Trade Agent for the sale of the special materials and apparatus used in the process. Willis & Clements will answer all letters of inquiry concerning the process.

Proprietors of patents, WILLIS & CLEMENTS, 631 Arch St., Philadelphia, Pa.

Agent, THOS. H. MCCOLLIN, 631 Arch St., Philadelphia, Pa.

NOTE.—On receipt of \$1.75 a small supply of chemicals and paper will be sent to any one desiring to try the process.

Wilson's Photographics. Ready. Price, \$4.00.

FOR SALE OR RENT.—A first-class gallery. Splendid location, north light. Everything in complete order. Doing a fair business. Only one other gallery in the town; population 10,000. Will sell for a reasonable price for cash, and will lease the rooms for one or five years.

Address L. M. WILLIAMS, Columbia, Lancaster Co., Pa.



FOR SALE.—A No. 1 photographic gallery in a rattling city of 10,000 inhabitants, with a big country trade. Best location in the city, and has always done a first-class business. Only one other gallery in the place. Good reasons for selling. Terms cash. For particulars, address

Box, 494, Olean, N. Y.

THE MOST POPULAR
OF ALL
SEWING MACHINES
Is the
LIGHT-RUNNING
NEW HOME
BEST MADE

SIMPLE
STRONG
SWIFT
SURE

HAS NO EQUAL
IS ALWAYS
AND IN ORDER
WILL LAST
A LIFETIME
SURPASSES ALL OTHERS

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FOR SALE BY

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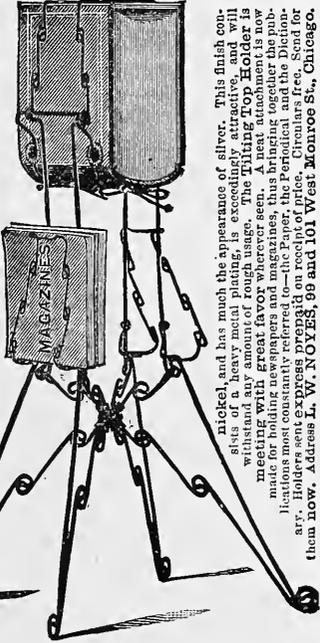
WE offer for the spring trade, ten new styles interior grounds; new style cloud grounds; new balustrade; Japanese screens; new foregrounds; three new draping curtains. Send for samples, to be returned.

W. C. CARLAND,

Manager Gouverneur Background Co.,
Gouverneur, N. Y.

**A PLACE FOR YOUR DICTIONARY,
A PLACE FOR YOUR NEWSPAPERS,
A PLACE FOR YOUR PERIODICALS,
And an ornament for your house, all in one,
THE NOYES DICTIONARY HOLDER.**

A thousand dictionaries in out-of-the-way-places will not instruct, while a single dictionary in a conspicuous place will. In fact, the holder is the great helper of the great lexicons, and in making these vast stores of learning available, is second only in importance to the lexicons themselves. The holder is now made in five styles, but especial attention is called to the Lacquered White Holder, the finish of which is more durable and brilliant than



nicked, and has much the appearance of silver. This finish consists of a heavy metal plating, is exceedingly attractive, and will withstand any amount of rough usage. The "Tipping Top" Holder is made for holding newspapers and magazines, thus bringing together the publications most constantly referred to—the Paper, the Periodical, and the Dictionary. Holders sent express prepaid on receipt of price. Circulars free. Send for them now. Address L. W. NOYES, 99 and 101 West Monroe St., Chicago.

Wilson's Photographics.
Fourth Edition—Now in Press.
\$4.00. Post-paid. \$4.00.

EXCHANGE COLUMN.

To accommodate those who have old apparatus, etc., to EXCHANGE (not sell), we offer to insert advertisements in this column at the low rate of 15 cents per line (of seven words), or fraction of a line. It will be found a cheap and helpful way of "unloading" useless articles about your studio for better ones. Cash to accompany all advertisements.

ONE 8 x 10 interior Seavey ground for one pair wide-angle stereo lenses; short focus with revolving diaphragms. Address

GEORGE N. COBB,
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SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

By an experienced operator at any branch of the business. Good retoucher and dry-plate worker. The East preferred. Address W. A. Townsend, 77 Monroe St., Springfield, Ohio.

By a smart, steady man, thirty-six years of age. A No. 1 operator and understands the business in all its branches. Will run a paying gallery on shares. Ten years' experience in Boston galleries. Good references given. Address J. Irving Gross, 713 Washington St., Boston, Mass.

As operator in some copying house or gallery. Competent to take full charge of photographic business. Wife to assist. I do not use tobacco, etc. Address Photo. Operator, care J. Hollar, Nimisila, Ohio.

By an experienced man as operator in a gallery fitted for first-class work. Address O. & R., Utica, N. Y.

By a first-class artist for the finest work in water-color, pastel, crayon, and oil. Address Dunkelberg, 378 New York Av., Jersey City Heights, N. J.

As operator in a country gallery, or to work on shares. Can retouch, work in ink and crayon. Address Photo., care C. Young, Sinclairville, N. Y.

FOR SALE, at once, at half value, photograph gallery, at Trenton, N. J. Good situation, and well furnished. Good reasons for selling. Address

C. H. WARDELL,

12 & 14 East State St., Trenton, N. J.

FOR SALE, cheap, an old-established gallery, in the central part of city of over 40,000 inhabitants: doing a good business. For particulars address "M," care of Scovill Manufacturing Co.,

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FOR SALE.—In the best town in the West, gallery doing a splendid business; everything complete to work with. A big chance for any man. Good reasons for selling. For particulars, address

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In a first-class gallery by a lady of experience. Can attend in reception-room to orders and desk-work, and take charge of finishing department. Address I. M., care Edward L. Wilson, 914 Chestnut St., Philadelphia.

As operator and general workman. Can furnish, if desired, a first-class photographic outfit. For references and samples, address Photographer, Box 304, Hartford, Conn.

As dark-room man or retoucher. Samples sent to those meaning business. Wages \$15 per week. Address 532 N. 12th St., Philadelphia.

By a young lady in reception-room, or as retoucher, in the city. Address Retoucher, 870 N. 4th St., Philadelphia.

In a good gallery by a first-class operator of fourteen years' experience. Wages expected \$15.00 per week. H. F. C., Photographer, Peru, Ind.

By a first-class retoucher, who can assist in operating, toning, printing, etc. Address S. Wobl, Box 1454, Muskegon, Mich.

By a first-class printer and toner. Best references given. Eight years with Houseworth & Co., San Francisco. Wm. Houseworth, 2029 Hubbs St., Phila.

By a first-class printer and toner. First-class reference can be furnished. Address C. V. R. Clark, 122 Washington Av. S., St. James Restaurant, Minneapolis, Minn.

J. L. CLARK,
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RETURNS MADE IN STRICTLY PURE CHEMICALS.

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- WM. H. CLIFFORD, Photographer and Artist, Philada.



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IT SERVES ALL THE PURPOSES OF AN ALBUM.

It is made with expanding back, so that from six to twenty-four pictures may be inserted in one cover. The pictures are mounted in the usual way, and then strips of linen or strong paper, of the proper width, are pasted on one edge, by which the picture is inserted and held in place in the cover by a paper fastener. For binding together views of your town or city, or portraits of celebrities, they are very neat. The following is a list of sizes and prices, without cards:

For Photographs.	Per doz.	Per hundred.	For Photographs.	Per doz.	Per hundred.
Card Size,	\$1.50	\$10.00	Cabinet Size,	\$2.25	\$13.00
EXTRA HEAVY COVERS.					
5-8 Size,	4.50	33.00	4-4 Size,	6.00	40.00
8-10 " " " " " "	8.00	56.50	11-14 " " " "	9.00	65.00

Special sizes made to order. Samples mailed at dozen prices. Send for some.

EDWARD L. WILSON, Photo. Publisher, 912 & 914 Chestnut St., Philada.

THE PHOTOGRAPHER TO HIS PATRONS

Is a neat little leaflet of twelve pages of the size of the four pages below. It tells your patrons what you want them to see on **Photography as an Art; When to Come; How to Come; How to Dress; How to Behave; and about Children, Business, Frames, Copying, Coloring, and Prices.**

"THERE'S MILLIONS IN IT."

PHOTOGRAPHERS OF AMERICA:

In these times of competition we all want something to *stir up business*. It is believed that no means of advertising, half so good, was ever offered to photographers, as that acceptable little leaflet,

"The Photographer to his Patrons."

Its utility and usefulness are proven by the fact that it has been demanded and translated into Spanish and German; that over

1,000,000 copies have been sold,

and that hundreds of photographers have written to the author, testifying to its great value as a positive *business-bringer*.

I take the liberty of sending you a copy, and ask you, for your own interest, to read it carefully all through. I have, since its publication, issued two other works of a similar character—*Pretty Faces*, at half the price; and *Something New*, at the same price. But the choice still seems to be for the old favorite, and I am still supplying it continually. The sample herewith is of a lot lately printed; and I desire to call your especial attention to a method which will secure you all the advantages of this work as an

(i)

the expense of hiring a man and team to distribute them in adjoining towns. I shall, undoubtedly, want more when these are gone. I got \$13.50 for the advertisements."

We endeavor to get them up in attractive and elegant style; and in order to protect those who use them in the enjoyment of them, we have *copyrighted* them, and trust no one will attempt their degradation by cheap and badly-made copies of them. We can print them as cheap as any one can for the quality, and have

RECENTLY REDUCED THE PRICES

to the following scale:

500 copies,	\$9 00
1000 "	15 00
3000 "	36 00
5000 "	50 00

Some photographers have had as many as 25,000, using them continually. Please look into the matter, and send on your orders for all seasons.

We supply, free of charge, several beautiful fancy cuts for the covers; but where three of the pages are covered with other matter, the style of the present sample is the neatest. You can have your own choice.

As already said, these leaflets are used all over the country, often by our leading photographers, from some of whom were received the following testimonials.

(iii)

advertisement, and yet cost you little or nothing. *The four pages of the cover are yours, to use for what you please.* You only need the first page for yourself. Get advertisements from your neighbors, at a proportionate figure, for the rest, and your leaflets cost you only the expense of distribution.

Messrs. Albert & Son, Alexandria, La., have seven advertisers, another recently had eight. From six of them he got \$1.75 each, and from two, \$2.25 each; making \$15—the cost of 1000 leaflets. Examine the copy herewith.

Mr. H. C. Norman, Natchez, Miss., who has adopted the same plan, writes, viz.: "As an advertising medium the leaflets have no equal. Two hours secured me seven advertisements, amounting to \$17.50, leaving me \$5.00 balance for express charges; thus securing me 1000 leaflets for nothing. With a little energy any photographer can secure cards enough from his friends to pay for all the leaflets he requires, and he should not be without them. I have not only seen, but felt, the result of using them."

Mr. L. B. Truax, Swanton, Vt., writes, viz.: "The leaflets have been received and prove a decided benefit to me. I consider them the best advertising medium I have yet found. The merchants who advertised on the covers seem to be of the same opinion; one of whom went to

(ii)

KEEP YOUR EYE ON THIS!



TESTIMONIALS:

- "Send 5000 in English and 2000 in German." JNO. A. SCHOLTEN, St. Louis.
- "Let me have a lot as soon as printed."—J. F. RYDER, Cleveland, O.
- "It works satisfactorily in every way."—A. N. HARDY, Boston. (Mr. Hardy has had 4 or 5 lots.)
- "They are the best business-cards a photographer can have."—T. S. ESTABROOKE, N. Y.

EDWARD L. WILSON, *Photo. Publisher,*
912 & 914 Chestnut St., Philada.

(iv)

DEALERS' DIRECTORY.

The following houses are to be recommended as the best for photographers in their localities.

S. T. BLESSING, New Orleans, La.	Douglass, Thompson & Co. "Great Central," Chicago, - - - Ill.	JAMES H. SMITH, Quincy, Ill.
H. A. HYATT, Mound City Photo. Stock House, 411 North Fourth St., St. Louis, Mo.	D. J. RYAN, Savannah, Ga.	J. C. SOMERVILLE, St. Louis, Mo.
SCOVILL MANF'G CO., 419 & 421 Broome St., New York.	D. TUCKER & CO., Buffalo, N. Y.	BLESSING & BRO., Galveston, Texas.
C. H. CODMAN & CO. Boston, Mass.	WILSON, HOOD & CO., 825 Arch Street, Philadelphia, Pa.	B. FRENCH & CO. Boston, Mass.
WM. J. HAZENSTAB, 406 Market St., St. Louis, Mo.	EDWARD L. WILSON, Photo. Publisher, LANTERN SLIDES, 912 & 914 Chestnut St., Philadelphia.	THEO. SCHUMANN, Atlanta, Ga.
OSCAR FOSS, San Francisco, Cal.	G. B O D E, Milwaukee, Wisconsin.	W. D. GATCHEL, Cincinnati, Ohio.

GET THE BEST!

CRAMER & NORDEN'S
ST. LOUIS
EXTRA-RAPID DRY PLATES.

WARRANTED PERFECT,
 With Latest Formulas and Complete Directions for Use.

FOR SALE BY

G. GENNERT, 105 William St., New York, Agent for the Eastern States.	MULLETT BROS., Kansas City, Mo.
DOUGLASS, THOMPSON & CO., Chicago.	H. A. HYATT, St. Louis.
N. C. THAYER & CO., Chicago.	WM. J. HAZENSTAB, St. Louis.
HIRAM J. THOMPSON, Chicago.	JAS. C. SOMERVILLE, St. Louis.
C. J. RICE, Chicago.	H. LIEBER & CO., Indianapolis.
W. D. GATCHEL, Cincinnati.	JAS. H. SMITH, Quincy, Ills.
P. SMITH & CO., Cincinnati and Columbus, O. [ville, Ky.	G. MOSES, New Orleans.
W. D. GATCHEL & CO., Louis-	S. T. BLESSING, New Orleans.
J. V. ESCOTT & SONS, Louisville.	ZIMMERMAN BROS., St. Paul.
	GUSTAVUS BODE, Milwaukee.



**HEARN'S
STUDIES IN
ARTISTIC
PRINTING**

—•• BY ••—
C. W. HEARN,
Author of "Practical Printer."

SIX FINE CABINET AND PROMENADE PORTRAIT STUDIES.

AMONG OTHER THINGS IT CONTAINS.

Suggestions on the Choice of Albumen Paper—All the Best Silvering Baths, and Methods of treating the same—New Views on the Relation of the Silver Bath to the Time of Floating—The Different Effects Caused by the Time of Floating—How to Tell when Paper is Floated too Long or too Short a Time—Table for Time of Floating Paper under all Circumstances—The Importance of Care in Printing in Varied Ways—The Important Relation Printing from the Negative Bears to the Toning Bath—Fast Printing—Dialogue between "Joe" and a Friend—The Way to Success in Toning Lies in Printing—The Different Effects Caused in Printing by the Preparation of the Silver Bath—The Relation of the Silver Bath to the Printing from the Negative, and from this to the Toning Bath—Acetate of Silver—Success or Failure in Toning Caused by the Strength, Purity, and Alkalinity of the Silver Bath—*Harmony*, its Importance in Photography—Why its Neglect Causes such Disastrous Results—The Beautiful in Toning, and How to Obtain it—A Few Hints About Managing Toning Baths—Formulae for Printing "Our Studies," as Given under Respective Headings—Impurities of Toning Baths—How it Affects the Toning, and How to Remedy such Baths—Fixing and Washing—Brilliance of the Finished Picture Attained by the Final Washing—Various and Valuable Hints about Finishing the Photographs, etc., etc.

Mailed to any address on receipt of price, \$3.50, by any stock-dealer, or by

EDWARD L. WILSON, Photo. Publisher, 912 & 914 Chestnut St., Philada.

SOLD BY ALL DEALERS. ASK TO SEE IT.

SINGHI'S VIGNETTING ATTACHMENT FOR PRINTING FRAMES.

To be used with WAYMOUTH'S VIGNETTE PAPERS.

(Patent Applied for.)

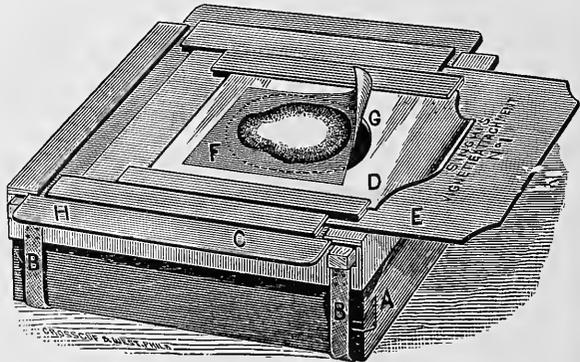
J. F. SINGHI, Inventor.

The best arrangement for adjusting these best of vignetting appliances in the world.

5x8 size now ready.

Price, by mail, \$1.50.

See description in this Magazine, June, 1881, or in *Wilson's Photographics*.



FOR SALE BY ALL DEALERS.

AN OLD ESTABLISHMENT WITH A
NEW BRAND OF ALBUMEN PAPER.

**CLEMONS' BRAND OF
ALBUMEN AND MATT SURFACE, SALTED,
PAPERS.**

Our "Extra Brilliant" Albumen Papers, Pearl, White and Pink, also our Matt Surface (Salted) Papers, can now be had at

\$35.00 per Ream; 90 cts. per Dozen; 10 cts. extra per mail.

Send in your orders at once. Address

JOHN R. CLEMONS, 915 Sansom St., Philadelphia, Pa.

BULLOCK & CRENSHAW,

No. 528 Arch Street, Philadelphia,

MANUFACTURERS AND IMPORTERS OF PURE CHEMICALS FOR PHOTOGRAPHY.
IMPORTERS OF GLASS AND PORCELAIN, APPARATUS, ETC.

**ALBERT MOORE THE SOLAR ENLARGER,
THE LONGEST, LARGEST, AND BEST.
828 Wood Street, Philadelphia.**

A NEW CATALOGUE OF

LANTERN SLIDES AND LANTERNS

READ IT. 15 CENTS IN STAMPS.

TELLS OF GASES WITHOUT BAGS, NEW LISTS OF SLIDES,
THE ELECTRIC LIGHT IN THE LANTERN, NEW LANTERNS.

Lantern Lovers should be sure to Examine it.

EDWARD L. WILSON, 912 & 914 Chestnut St., Philadelphia.

NEW DRESDEN
 EXTRA  BRILLIANT
 ALBUMEN PAPER
 WHITE, PINK, PENSÉ.

FREE from BLISTERS and IMPERFECTIONS.

TESTIMONIALS.

MILWAUKEE, October 11th, 1881.

G. GENNERT, Esq.,
 New York.

DEAR SIR: The paper works lovely, and is a
 Godsend to the photographers.

Very truly, HARRY SUTTER.

MR. G. GENNERT.

DEAR SIR: One ream Extra Brilliant Eagle
 pink received and tried; my printers say it is the
 best they have had for years; it keeps perfectly
 white, which is one of the greatest features for us
 in St. Louis. It prints and tones fine. I am
 satisfied with the beautiful prints I've received for
 the past week, which is something, you know, I
 am hard to be pleased with. Keep it up, and
 send another ream immediately.

Yours truly, J. A. SCHOLTEN.

MILWAUKEE, October 3d, 1881.

G. GENNERT,
 105 William St., New York.

DEAR SIR: I wish to express my appreciation
 of the Eagle Brand Albumen Paper. I am
 highly pleased with it, it being the best I ever
 used, and for purity of tone and clearness in the
 high-lights and shadows it cannot be excelled.

HARRY SUTTER.

G. GENNERT, Esq.

DEAR SIR: I have received the 10Ko and
 8Ko Eagle light pink albumen paper which you
 sent me a few weeks ago, and now I have care-
 fully tried it, I can but say it is by far the best
 paper we have worked for a long time. Hoping
 the quality will remain the same for all time to
 come, I shall not want to use another brand.

Yours truly, H. ROCHER.

IMPORTED BY

G. GENNERT,

105 WILLIAM ST., NEW YORK.

FOR SALE BY ALL DEALERS.

1882.

Photographers'
 Booksellers,
 Stationers,
 and
 Newsdealers
 Publishers of
 Hints on Burnishing
 Photographs,
 AND THE
 Photographers' Monthly
 Bureau of Information



1882.

We are
 MERCHANTS
 in
 ALL REQUISITES
 PERTAINING
 to the
 ART-SCIENCE
 of
 PHOTOGRAPHY.

Douglass, Thompson & Co.

Nos. 229 & 231 State Street,

GAYTON A. DOUGLASS.
 HENRY G. THOMPSON.

CHICAGO.

GELATINE BROMIDE DRY PLATE.

Beebe's, Cramer & Norden's, Eastman's, Carbutt's.

Outfits, and everything used in Dry Plate work.



We invite cash trade, believing it for the best interests of all parties to adopt the pay as you go system.

With us, cash with order, or on C. O. D. purchases, insures a discount of **5 PER CENT**, deducted from bill, in addition to the very low prices we offer.

A practical knowledge of the Art-Science of Photography gives us a special advantage in meeting all demands.

Our Warerooms are commodious, located conveniently for business, our stock ample for all usual demands, fresh, carefully selected, and we can sell at prices satisfactory to the consumer. We deal in nothing but supplies for Photography, devoting our whole time and energies to the wants of our patrons, thus offering a special advantage to such who appreciate care and attention. We study promptness in meeting all favors entrusted to us, and guarantee exactness.



A NEW TREATMENT

For Consumption, Asthma, Bronchitis, Catarrh, Dyspepsia, Headache, Debility, Neuralgia, Rheumatism, and all Chronic and Nervous Disorders.

ADMINISTERED BY INHALATION.

ACTS DIRECTLY upon the great nervous and organic centres, and *cures by a natural process of revitalization.*

HAS EFFECTED REMARKABLE CURES, which are attracting wide attention.

HAS BEEN USED BY Rt. Rev. John J. Keane, Bishop of Richmond, Va., Hon. Wm. D. Kelley, T. S. Arthur, and others, who have been largely benefited, and to whom we refer *by permission.*

IS STRONGLY ENDORSED: "We have the most unequivocal testimony to its curative power from many persons of high character and intelligence."—*Lutheran Observer.* "The cures which have been obtained by this new treatment seem more like miracles than cases of natural healing."—*Arthur's Home Magazine.* "There is no doubt as to the genuineness and positive results of this treatment."—*Boston Journal of Commerce.*

THE OXYGEN HOME TREATMENT contains two months' supply, with inhaling apparatus and full directions for use.

SENT FREE: a Treatise on Compound Oxygen, giving the history of this new discovery and a large record of most remarkable cures. Write for it. Address

DRS. STARKEY & PALEN, 1109 and 1111 Girard St., Philadelphia, Pa.

DEPOSITORY ON PACIFIC COAST.

WE HAVE ESTABLISHED A DEPOSITORY OF OUR COMPOUND OXYGEN HOME TREATMENT at San Francisco, Cal. This will enable patients on the Pacific Coast to obtain it without the heavy express charges which accrue on packages sent from Eastern States.

All orders directed to H. E. MATHEWS, 606 Montgomery Street, San Francisco, Cal., will be filled on the same terms on which we fill orders sent directly to our office in Philadelphia.

Patients ordering from our depository in San Francisco should, at the same time, write to us, and give a statement of their case, in order that we may send such advice and direction in the use of the Treatment as their special disease may seem to require.

ALSO SENT FREE

"**HEALTH AND LIFE,**" a quarterly journal of cases and cures under the Compound Oxygen Treatment. Nos. 1 and 2 now ready. Address

DRS. STARKEY & PALEN,
Nos. 1109 and 1111 Girard Street, Philadelphia, Pa.

FREE LUNCH!

WE WILL SEND YOU A SAMPLE OF OUR
UNION NEGATIVE COTTON,
 FREE OF CHARGE,

So that you may try it and be convinced of
ITS SUPERIOR QUALITY.

IF YOU NEVER HAD WASTE REFINED BY US
 GIVE US A TRIAL AND COMPARE RESULTS
Circulars How To Save Waste, free on application.

CHAS. COOPER & CO.,
 194 Worth St., New York.

PHOTOGRAPHIC COLORISTS' GUIDE THE

**\$1.50
 AT**



By the late JOHN L. GIBON
 ⇒ PHOTOGRAPHIC COLORING. ⇐

The growing demand for a fresh work on
Photographic Coloring, one that contains full in-
 structions on all the new and improved methods—for
 like photography itself, photo. coloring has improved
 and progressed—has led to the publication of the above.

ITS CONTENTS ARE:

- | | |
|---|--|
| <p>PREFACE.</p> <p>Chap. I. On India-ink Work.</p> <p>II. The Principles to be Con- sidered in the Application of Colors.</p> <p>III. The Materials used in Fin- ishing Photographs with Water Colors.</p> <p>IV. Water-color Painting as Ap- plied to Photographs.</p> | <p>Chap. V. Relative to the Use of Paints that are Mixed with Oil.</p> <p>VI. Coloring with Pastels.</p> <p>VII. The Production of Ivory- types.</p> <p>VIII. The Crystal Ivorytype.</p> <p>IX. Crayon Work.</p> <p>X. Negative Retouching.</p> <p>XI. About Matters so far For- gotten.</p> <p>XIII. Rudimentary Perspective.</p> |
|---|--|

The last chapter is on a subject entirely new and fresh, and is finely illustrated.

Mailed on receipt of price,
\$1.50 per copy.

EDWARD L. WILSON,
 PHOTO. PUBLISHER,
 912 & 914 Chestnut Street, Philadelphia.

IMPORTANT TO PHOTOGRAPHERS.

ONLY THE BEST GOODS
 ARE
COUNTERFEITED!

IT DON'T PAY TO IMITATE INFERIOR ONES.

Extra Brilliant "S. & M." Paper,

Extra Brilliant "N. P. A." Paper,

Extra Brilliant Cross Sword Paper,

Have all been counterfeited, and cheaper goods imposed upon Photographers.

NONE OF THE ABOVE ARE GENUINE

Unless the water-mark is seen, in each case, by looking through the paper:

"S. & M." in the "S. & M." Paper,

"N. P. A." in the "N. P. A." Paper,

"Cross Swords" in the Cross Sword Paper.

THE STAMP in the CORNER DON'T PROVE ANYTHING,
 Look THROUGH the paper.

E. & H. T. ANTHONY & CO.,

591 BROADWAY, NEW YORK,

HEADQUARTERS FOR ALL KINDS OF ALBUMENIZED PAPERS.

**A. M. COLLINS,
SON & CO.**

MANUFACTURE ALL KINDS OF

CARDS and CARDBOARDS

FOR

PHOTOGRAPHERS

AND

MATS and MOUNTS

FOR

FERROTYPES.

WAREHOUSE:

**527 ARCH STREET,
522 CHERRY STREET,
PHILADELPHIA.**

PRICE LISTS ON APPLICATION.

JOHN G. HOOD.

ESTABLISHED 1865.

WM. D. H. WILSON.

WILSON, HOOD & CO.

825 Arch Street,
PHILADELPHIA,

SOLE AGENTS IN THE UNITED STATES FOR THE
LONDON, 1851. LONDON, 1862. PARIS, 1867.



ennial, 1876.

Centennial, 1876.

Ross' Portrait and View Lenses.

WE HAVE
NOW
IN STOCK

Portrait Lenses, from 1-4 to 8 x 10.
Cabinet Lenses, Nos. 2 and 3.
Card Lenses, Nos. 1, 2, and 3.
Triplets, Nos. 1, 2, 3, 4, 5, 6, and 7.
Symmetricals. Rapid Symmetricals.

Instantaneous Doublets, all sizes.
Medium Angle Doublets, all sizes.
Large Angle Doublets, all sizes.
Stereographic Lenses, all sizes.
New Universal Lens.

Numerous testimonials pronounce them to be the best as well as the cheapest Foreign Lenses ever offered to the American Photographer. We will mail price list on application, and promptly fill all orders.

Steinheil's Sons' NEW APLANATIC Lenses.

We now have a full stock of these Celebrated Lenses, at the following prices:

No. 1-1-4 size, 3 1/2 inch focus, \$25 00	No. 5-10 x 12 size, ... 13 1/2 inch focus, ... \$70 00
» 2-1-2 » 5 1/4 » 30 00	» 6-13 x 16 » 16 1/4 » 110 00
» 3-4-4 » 7 » 45 00	» 7-18 x 22 » » 200 00
» 4-8 x 10 » 10 1/2 » 60 00	» 8-20 x 24 » » 359 00

Nos. 1 and 2 are in matched pairs for stereoscopic work.

We feel sure that at least one of these lenses is needful for the successful prosecution of your business, and so solicit your orders. Always in stock, to suit above Lenses, CAMERA BOXES made by AMERICAN OPTICAL CO., SEMMENDINGER, and S. PECK & CO.

WE MANUFACTURE, IMPORT, AND DEAL IN ALL KINDS OF

Photo. Goods, Frames, Stereoscopes and Views,

At prices as low as are consistent with the quality of goods furnished. We are indebted to our customers for the patronage during the past Sixteen Years, and our efforts shall be to merit a continuance of it. We have been appointed Trade Agents for

Parys' and Lindsay's Cotton, Solar and Contact Printing,
Cremer's French Lubricator, Coloring in all Styles, for the Trade.

ILLUSTRATED PRICE LISTS FREE TO ALL APPLICANTS.

B BEEBE B

Gelatine Dry Plates.

The attention of photographers is called to the eminently good qualities of these plates, both for **STUDIO AND LANDSCAPE WORK.**

They are prepared with the utmost care and skill by experienced heads and hands, and are guaranteed first-class.

TESTIMONIALS.

CHICAGO, November 7th, 1881.
 MR. J. E. BEEBE.
 DEAR SIR: In regard to the quality of your gelatin-bromide plates, I can cheerfully testify to the excellent qualities they possess. In fact, I have made some of my very best pictures on them, and I continually use them in my studios.
 Yours truly, H. ROCHER.

CHICAGO, November 7, 1881.
 MR. J. E. BEEBE.
 DEAR SIR: Having tested your plates, I find them "tip-top." They develop with plenty of *pluck, clean and rapid.*
 Yours very truly, JOSHUA SMITH.

CHICAGO, November 7th, 1881.
 In speaking of the "Beebe" plate, I would say that I have used them with other plates and find them just as good as any I have used.
 J. F. EDGEWORTH.

OSHKOSH, 1881.
 I cheerfully recommend the "Beebe" as first-class in every respect, and so long as they keep up to the present standard I shall use no other.
 COOK ELY.

CHICAGO, 1881.
 I never made finer negatives than those on the "Beebe" plate.
 P. B. GREENE.

PRICES.

Size.	Per Doz.	Size.	Per Doz.
3 1/4 x 4 1/4	\$0 80	6 1/2 x 8 1/2	\$3 00
4 x 5	1 15	8 x 10	4 50
4 1/4 x 5 1/2	1 25	10 x 12	6 50
4 1/4 x 6 1/2	1 60	11 x 14	8 50
5 x 6	1 65	14 x 17, double-thick glass	12 00
5 x 7	2 15	18 x 22, " " "	22 00
5 x 8	2 25	20 x 24, " " "	28 00

With premises enlarged and improved we are now able to fill all orders promptly and to supply the trade generally.

Address the manufacturers of **THE "BEEBE" DRY PLATE,**

THE CHICAGO DRY PLATE MFG. CO.,
 2228 Indiana Avenue, Chicago, Ill.

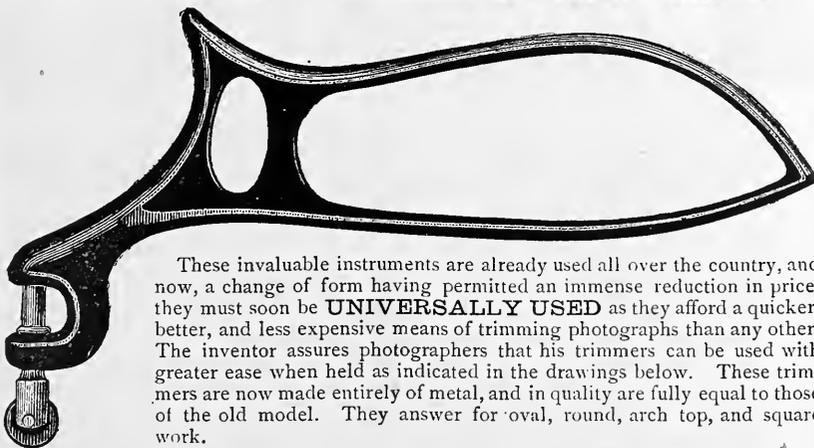
"To those desiring to make their own plates, The Chicago Dry Plate and Manufacturing Company offer

BEEBE'S SPECIAL GELATINE, Per Lb. \$2.50.

This is the specially prepared gelatine used in the manufacture of the 'Beebe Plate,' and is the result of many months careful experimenting."

ROBINSON'S NEW MODEL PHOTOGRAPH TRIMMERS!

This drawing is of the full natural size and shape of the New Model Revolving Trimmer. The *Straight Cut* is of same size, varying but little in shape.



These invaluable instruments are already used all over the country, and now, a change of form having permitted an immense reduction in price, they must soon be **UNIVERSALLY USED** as they afford a quicker, better, and less expensive means of trimming photographs than any other. The inventor assures photographers that his trimmers can be used with greater ease when held as indicated in the drawings below. These trimmers are now made entirely of metal, and in quality are fully equal to those of the old model. They answer for oval, round, arch top, and square work.



Plan of holding the *Straight Cut* Trimmer when in use. **PRICE, 50 CENTS.**



Plan of holding the Revolving Trimmer when in use. **PRICE (with one card guide) \$1.00.**

ROBINSON'S GUIDES. MADE OF SHEET-IRON.

We have the following **Regular Sizes** always on hand at 10 cents per inch the longest way of the aperture.

OVALS.				SQUARE OR ROUND CORNERED.			
2 x 2 $\frac{1}{2}$	3 $\frac{3}{8}$ x 4 $\frac{3}{8}$	5 x 7	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	2 $\frac{1}{16}$ x 3 $\frac{3}{16}$	2 $\frac{5}{16}$ x 3 $\frac{3}{16}$	2 $\frac{3}{8}$ x 4 $\frac{1}{2}$	4 x 5 $\frac{5}{8}$
2 $\frac{1}{2}$ x 3 $\frac{1}{2}$	3 $\frac{3}{8}$ x 4 $\frac{3}{8}$	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	2 $\frac{1}{8}$ x 3 $\frac{3}{8}$	2 $\frac{5}{16}$ x 3 $\frac{3}{8}$	2 $\frac{7}{8}$ x 4 $\frac{5}{8}$	4 $\frac{1}{2}$ x 5 $\frac{7}{8}$
2 $\frac{1}{2}$ x 3 $\frac{3}{4}$	3 $\frac{3}{8}$ x 4 $\frac{3}{8}$	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$	7 x 9	2 $\frac{1}{8}$ x 3 $\frac{3}{8}$	2 $\frac{5}{16}$ x 4 $\frac{1}{4}$	3 $\frac{7}{8}$ x 5 $\frac{1}{4}$	3 $\frac{3}{4}$ x 6
2 $\frac{1}{2}$ x 3 $\frac{3}{4}$	3 $\frac{3}{8}$ x 5 $\frac{1}{4}$	5 x 7	7 $\frac{1}{2}$ x 9 $\frac{1}{2}$	2 $\frac{5}{16}$ x 3 $\frac{1}{16}$			4 x 6 $\frac{1}{2}$
2 $\frac{1}{2}$ x 3 $\frac{3}{4}$	4 x 5 $\frac{3}{8}$	5 x 7	7 $\frac{1}{2}$ x 9 $\frac{1}{2}$	FOR STEREOGRAPHS.			
2 $\frac{1}{2}$ x 4 $\frac{1}{4}$	4 $\frac{3}{8}$ x 6 $\frac{3}{8}$	6 x 8	7 $\frac{3}{4}$ x 9 $\frac{3}{4}$	Arch Tops.	Round Cornered.	Round.	
				3 $\frac{1}{16}$ x 3 $\frac{3}{16}$, 3 x 3	3 $\frac{1}{16}$ x 3 $\frac{3}{16}$, 3 x 3	3 x 3	

The above sizes suit the Collins Card Mounts, and photographers knowing that they can be always had at the low price of ten cents per inch, would do well to *make their sizes accord*, as orders can also be filled more quickly. Ten days is required to make special sizes.

Special Sizes made to order, at 15 cents per inch, the longest way of the aperture.

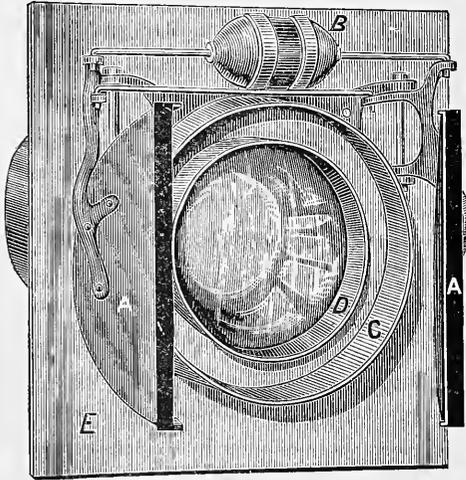
ROBINSON'S PHOTOGRAPH TRIMMERS are *Substitutes for the Knife for Trimming Photographs, and do the work much more expeditiously and elegantly. They Save Time, Save Prints, and Save Money.*

They do not *cut*, but *pinch off* the waste paper, and leave the print with a neatly beveled edge which facilitates adherence to the mount. Try one, and you will discard the knife and punch at once. For ovals and rounded corners they are worth their weight in gold.

For sale by all Dealers. **EDWARD L. WILSON, Manufacturer's Agent, 912 & 914 Chestnut St., Philada.**

THE

Lightning Shutter.



GREATLY IMPROVED.

Everybody understands the need of a new method of making exposures with the dry plates. The design of this Shutter is to meet this necessity, and judging by the favor shown to it by photographers

IT IS A COMPLETE SUCCESS.

Until lately we have not been able to make them fast enough to meet the demand.

ITS ADVANTAGES ARE:

It is out of sight of the sitter, being attached to the inside of the box. It opens in the centre, vertically, thus giving the best illumination on the most important parts of the picture.

It is a Pneumatic Shutter, and works without noise or visible motion.

The action of the valves are direct, so that it is not liable to get out of order. It can be changed from one box to another in a moment.

Its action is certain and reliable, the Shutter closing light-tight instantaneously. Any length exposures can be given to suit the light, the subject, or the chemical. This is very important. It enables the operator to watch his sitter's face and secure his most desirable expression.

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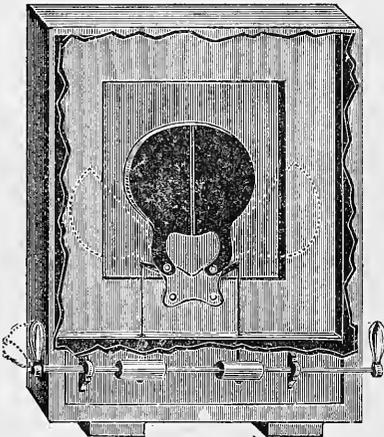
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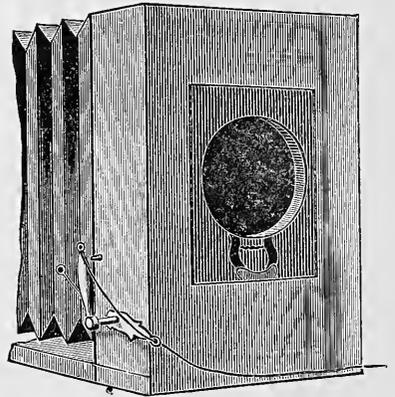
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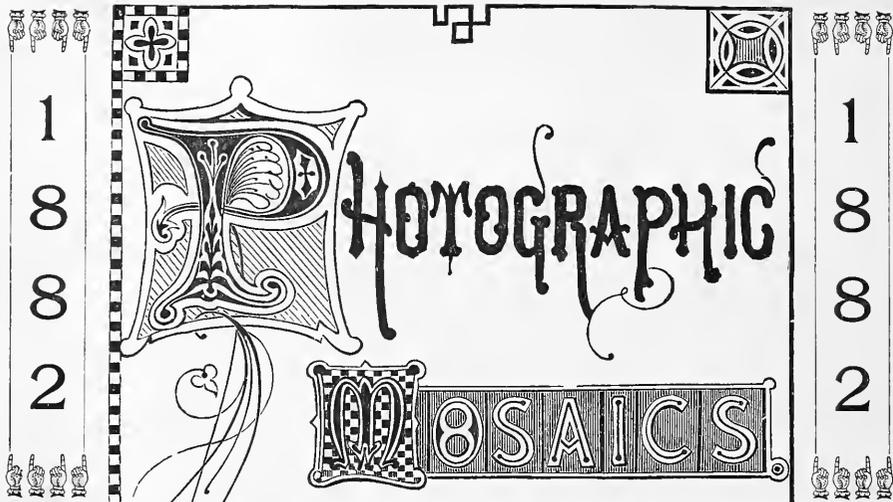
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SUMMARY OF CONTENTS.

	PAGE		PAGE
Our Picture,	97	Answers to Questions to the Craft,	115
Death of M. Alphonse Poitevin,	98	A New Dry-Plate Lantern,	116
Echoes from the Orient. By EDWARD L. WILSON,	98	Prices. By R. E. Wood,	117
The Rives Paper Manufactory,	101	Proceedings of Societies,	118
Exhibition of the Photographic Society of Philadelphia,	103	Throw away your Ruby Glass,	119
Combination Printing,	103	French Correspondence. By LEON VIDAL,	121
Gelatine Dry-Plates. By JOHN C. BROWNE,	107	Leisure Time,	123
A Warming-box for Emulsion,	111	The Imaginary Brigand,	125
Pertaining to the P. A. of A.,	111	New Books,	126
		Editor's Table,	127

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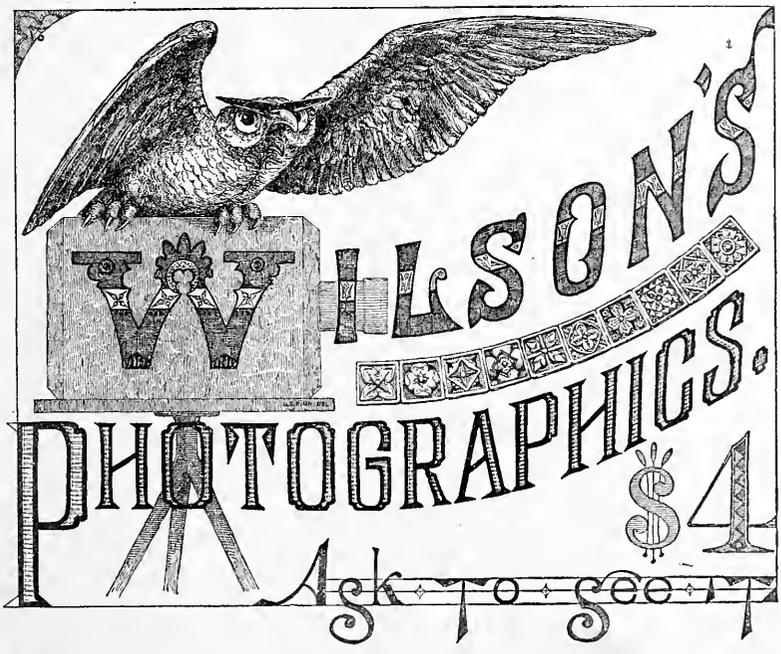


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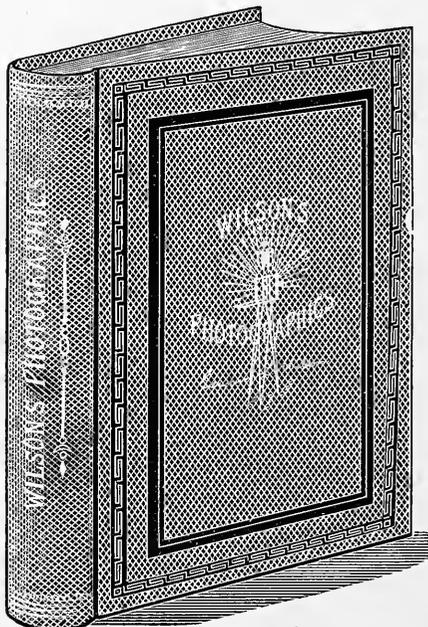
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 Acidifying the Prints.
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 Loss of, from the Paper.
 Paper, Defects and Dryness of Substratum for Glass.
 Alkaline Sulphides, Test for.
 Alum, Treatment of the Prints with.
 Angle of View possible with a Lens.
 Angular Composition.
 Aniline Blue for Pure Whites in Prints.
 Apparatus, Dry-Plate for Landscapes.
 Arrangement of Drapery, Raphael's.
 Art among Photographers. and Art Rules.
 Principles applied to Photog.
 Artificial Light for Solar Print-
 "Artotypes." [ing].
 Atmospheric Effect.
 Backgrounds.
 Frames for.
 How to Make and Paint.
 Bath, Boiling down the.
 Decolorizing the Printing.
 Fusing the.
 Rectifying the.
 Removing Albumen from the.
 Testing the Strength of the.
 The Fixing.
 The Nitrate.
 Troubles.
 Black and White Negatives.
 Blistering of Prints.
 Blueness of the Film.
 Bold Prints from Flat Negatives.
 Breadth of Effect.
 Brilliancy in a Photograph.
 Bromo-Gelatin Emulsion Work.
 Alkaline Developer for.
 Calculations, Table for.
 Carbutt's Cruet for.
 Chemicals for.
 Development of.
 Drying the Plates.
 Exposure of.
 Fogging of.
 Fringing of.
 Intensifying.
 Printing.
 Rapidity of.
 Reducing.
 Retouching and Varnishing.
 Spreading the Gelatin.
 Strengthening.
 Washing.
 Burnishing the Prints.
 Camera, Care of the.
 How to tell a good.



Card-Board, Cockling of the.
 Cheapness.
 Chemicals and Solutions, The.
 Chemistry of Out-Door Formulæ.
 Chiaro-Oscuro, or Light and Shade.
 Chloride of Gold, Saving.
 of Silver, into a Metallic State.
 Clouds and Sky, The.
 in Out-Door Views.
 Printing in.
 Collodion Bromized.
 Changes.
 Double Iodized.
 for Hot Weather.
 for Interiors.
 Intense.
 Out-Door, Water In.
 Troubles.
 Collodion Transfers.
 Coloring.
 Gelatin Paper for.
 Iodizers for.
 Printing.
 Collodionizing the Plate.
 Color, Good, Printing for Negatives.
 Composition, Angular.
 Circular.
 Pyramidal.
 Concluding Confab.
 Contraction and Expansion of Paper.

Contrasts, Violent.
 Correctness and Comparison.
 Curtains for the Studio.
 Dark-Room, The.
 Dark-Tent, The.
 Defective Toning of Prints.
 Defects and Dryness of Albumen Paper.
 Dense Negatives, Printing.
 Developer, The Iron.
 The Iron and Ammonia.
 Development, The.
 Best Rule for the.
 Diaphragm.
 Use of the. [Printing
 "Doctoring" Negatives for
 Drapery, Raphael's arrangement of.
 Drying-Box for Phototype Plates.
 Cupboard for Einulside Plates. [Plate
 Cupboard for Phototype Plates.
 Oven for Phototype Plates.
 Room, The.
 the Paper.
 the Prints.
 Vogel's Collodion Emulsion
 Education of Photographers.
 Effect, Breadth of.
 Effects, Brilliant.
 of Light.
 Encaustic Paste for Prints.
 Enlargements and Lantern Slide
 Enlarging Carte-de-Visite Negatives.
 Exposure for Phototype Plates.
 for Platinotypes.
 of Bromo-Gelatin Plates.
 Shortening.
 Time of.
 Eye, Education of the.
 of the Sitter.
 Faces, The Study of.
 Fading of Prints.
 Ferrous-Oxalate Developer, The.
 Field Work.
 Figures in.
 Foreground Study in.
 Film, Blueness of the.
 Weakness of the.
 Filtering Albumen for Phototype
 Gelatin for Phototypes.
 Finishing and Mounting.
 Fixing.
 Flat Negatives, Printing.
 Flatness and Want of Contrast.
 Fogging.
 Formation of Network on the Film
 Fumes, Poisonous.
 Fuming the Paper.
 Fusing the Bath.
 Glace Prints.
 Glass, Preparation of the.
 Studio, The.

d Toning-Bath, Treatment of
the.
-Cotton, The.
ds, The.
ains on the.
mony.
izational Lines.
nik's Process for Phototypes.
nsifier, The.
mmonia and Mercury.
chloride of Mercury.
errid Cyanide.
ron and Acid.
erchloride of Iron.
ermanganate of Potash.
yrogallic Acid.
hlippe's Salts.
lver and Acid.
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lin, Rectifying Printing-Bath
with.
dscape Apparatus.
otography.
ews, Formula for.
tern Slides and Enlargements.
king of the Glass Studio.
s or Objective, The.
ses, Angle of View Possible
with.
hoice of.
orms of.
ht and Accessories.
nd Shade, or Chiaro-Oscuro.
eflected.
hting, Rembrandt's Style of.
ghtning" Processes.
en, Printing on.
ricating the Prints.
haging the Model.
hulations, The.
hulatory Miseries.
bled Appearance of the Paper.
ed Lines on Prints.
lness in Prints.
sles or Mottles on Prints.
asuring Metrical.
allion Printing.
egatypes."
allic Spots in Prints.
el, Study the.
anting and Finishing.
aste.
ithout Cockling.
ure, Study.
ative, A Generally Wretched.
atives, Black and White.
ffects in.
"Doctoring" for Printing.
r Solar Printing.
reserving of.
rinting Dense.
rinting Weak.
removing Stains from.
ork, Formation on the Film of.
ective or Lens, The.
ects, Distances of.
y Lines in Negatives.
que for Negatives, Gihon's.
side Photography.
hemistry of.
ork, Art Principles in.
ork, Clouds in.
ork, Exposure.
ork, Keeping Plates for.
ork, Tent for.
r-Exposure of Bromo-Gelatin
Plates.
er, Cockling of the
rying the.
xpansion and Contraction of.

Fuming the.
Keeping White the.
Marbled Appearance of the.
Sensitizing the.
Woolliness of the.
Paste for Mounting.
Patches and Stains on Prints, Yel-
low.
Perplexities, Printing.
Perspective.
Photography, Landscape.
Phototypes, Basis for.
Exposure of the Negatives for.
Husnik's Substratum for the
Plates for.
Inking the Films for Printing.
Pinholes.
Plain Paper, Printing on.
Platinotypes, Sensitizing the Paper
for.
Cleaning and Washing.
Development of.
Exposure of the Paper.
Poisons.
Porcelain, Printing on.
Posing, Suggestions about.
Preserving Negatives.
Printing, Art in.
by the Solar Camera.
Dense Negatives.
Development Process of.
Flat Negatives.
Medallions.
on Albumen Paper.
on Various Surfaces.
Stereoscopic Views.
Temperature in.
Vignettes.
Weak Negatives.
Printing-Bath, The.
Decolorizing the.
Strengthening the.
Printing-Room, The.
Prints, Acidifying the.
Blistering of the
Burnishing the.
Defectively Toned.
Drying the.
Encaustic Paste for.
Fading of the
Fixing.
Glaze.
Imperfect Washing of the.
Lubricating.
Measled or Mottled.
Metallic Spots in.
Refuse to Tone.
"Spotting" the.
Touching Out.
Treatment with Alum of the
Trimming.
Warm-Water Washing of.
Washing in "Lead Water."
Washing the.
With Red Marbled Lines.
Yellowness of the.
Productions of Photography, The.
Public, Relation of the Photogra-
pher to the
Pure Whites in Prints.
Quick-Acting Processes.
Red Patches on Prints.
Reducing Process for Solar Nega-
tives.
Reinforcing the Negatives.
Rembrandt's Style of Lighting.
Removing Stains from Negatives.
Retouching Bromo-Gelatin Plates.
Process, Solar Negative.
the Negatives.

Reversing the Negative, Apparatus
Robinson's Print Trimmer. [for.
Screens and Curtains.
Sensitizing Paper for Platinotypes.
the Paper.
the Plate.
Shortening the Exposure.
Silver Iodide, to make.
Saving, Method of.
Solutions, Volumetric Test of.
Sky and Clouds, The.
Softness in Lighting.
Solar Camera Printing.
By Artificial Light.
Camera Printing Negatives, re-
touching.
Negative Reducing Process.
Retouching Process.
Stains from Negatives, Removing.
on the Hands.
Stereoscopic Views, Printing.
Negatives Preparing.
"Stop," Use of the.
Streaks and Stains in Negatives.
Strengthening Gelatin Emulsion
Plates.
the Printing-Bath.
Studio, the Glass.
Construction of the.
Curtains.
How to Build a.
Leaking of the Glass.
with Curved Light.
Working Plans for Construction.
Subject, Choice of.
Treatment of.
Table for Converting Centigrade
into Fahrenheit.
for Converting Cubic Centimetres
into Ounces, etc.
for Converting Metrical to Troy
Millimetres into Inches, etc.
Temperature in Printing.
Tent, The Dark.
Testing of Silver Solutions.
Toning the Prints.
Bath, Treatment of the Gold.
Defective.
Solutions.
Touching out Prints.
Transfers, Collodion, Iodizers for.
Coloring.
Developer for.
Fixing.
Gelatin Paper for.
Printing.
Transparencies, Bromo-Gelatin.
for the Magic Lantern, To make.
Treatment of the Subject.
Use of the Diaphragm.
Varnishes and Varnishing.
Ventilation of the Dark-Room.
Views of Interiors.
Collodion for.
Exposure for.
Figures in.
Light for.
Selection of.
Vignette Printing.
Paper, Waymouth's.
Printing Attachment, Singhi's.
Vogel's Collodion Emulsion.
Warm Water for Washing Prints
Wash-Room for the Prints.
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Waymouth's Vignette Papers, Use
of.
Weakness of the Film.
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OUTFIT C, complete, price \$18.50, comprises a VIEW CAMERA for making 5 x 8 inch Pictures. This Camera is constructed so as to make either a CABINET PICTURE on the full size of the plate (5 x 8 inch), or, by substituting the extra front (supplied with the outfit) and using the pair of lenses of shorter focus, it is admirably adapted for taking STEREOSCOPIC NEGATIVES, also by the same arrangement two small pictures, 4 x 5 inches each, of dissimilar objects can be made on the one plate. Included in this outfit are also 1 Patent Double Dry-Plate Holder; 1 large "Waterbury" Achromatic Nickel-Plated Lens with Standard English Flange; 1 pair "Waterbury" Achromatic Nickel-Plated Matched Stereoscopic Lenses; 1 Tripod Camera Stand; 1 Carrying Case.

American Optical Company's Apparatus Outfits.

This apparatus is manufactured in New York City, under our immediate personal supervision; and, as we employ only highly skilled workmen, and use nothing but the choicest selected materials, we do not hesitate to assert that the products of our factory are unequalled in durability, excellence of workmanship, and style of finish. This fact is now freely conceded not only in this country but throughout Great Britain, France, Germany, Australia, and South America.

Quality being considered, our prices are moderate, as the same grade of apparatus cannot be supplied for less price.

OUTFIT No. 201, complete, price \$26.50, consists of a MAHOGANY POLISHED CAMERA for taking pictures 4 x 4 inches, with *Folding Bellows Body*, single swing, hinged bed and brass guides. It has a shifting front for adjusting the sky and foreground, also 1 Patent Double Dry-Plate Holder; 1 Taylor Folding Tripod; 1 Canvas Case to contain Camera and Holder.

OUTFIT No. 202, complete, price \$27.00, consists of a FOLDING MAHOGANY CAMERA for taking 4 x 5 pictures, same style as 201 Camera; also, 1 Patent Double Dry-Plate Holder; 1 Canvas Carrying Case; 1 Taylor Folding Tripod.

OUTFIT No. 203, complete, price \$41.00, consists of a FOLDING MAHOGANY CAMERA, fully described in American Optical Company's Catalogue, and well known as the '76 Box. It is adapted for taking 5 x 8 pictures, and also for taking stereoscopic views, together with 1 Patent Double Dry-Plate Holder; 1 Canvas Carrying Case; 1 Taylor Folding Tripod.

Cameras in Outfits 202 and 203 have shifting fronts, and are equal in style and finish to the best of the American Optical Co.'s make.

OUR NEW PATENTED DRY-PLATE HOLDERS

are the best made, and answer the demand in dry-plate work for something that will exclude all light. Prices of *EXTRA Patent Double Dry-Plate Holders* are as follows:

4 x 4 Holders, for two Plates,	. . . . .	each, \$3.00
4 x 5 " " " "	. . . . .	" 3.00
5 x 8 " " " "	. . . . .	" 4.00

For a choice of Lenses suitable to these Outfits, see next page.

MORRISON'S Wide-Angle View Lenses.

PATENTED MAY 21st, 1872.

These Lenses are absolutely rectilinear; they embrace an angle of fully 100 degrees, and are the most rapid *wide-angle* lenses made. We recommend them for use with the foregoing outfits.

Price of Morrison's Wide-Angle Lenses.

No. 1,	$\frac{3}{4}$	Diam. of Lens,	4 x 4 in.	Plates,	3 in.	Equiv. focus.	Price each,	\$25.00
No. 2,	1	" " " "	4 x 5 " "	" "	$3\frac{1}{2}$ " "	" " " "	" "	25.00
No. 3,	1	" " " "	$4\frac{1}{2}$ x $7\frac{1}{2}$ " "	" "	$4\frac{1}{4}$ " "	" " " "	" "	25.00
No. 4,	1	" " " "	5 x 8 " "	" "	$5\frac{1}{4}$ " "	" " " "	" "	25.00

MORRISON'S Rapid Stereoscopic Lenses, FOR INSTANTANEOUS VIEWS OR LAWN GROUPS.

They are entirely different, in many particulars, from any other lenses in the market. They are 6 inch focus and $1\frac{1}{4}$ inches in diameter, and are, of course, made in matched pairs, with a set of diaphragms also for 5 x 8 views.

A novel and ingenious instantaneous drop is also provided, passing through the brass work, on the same principle as a central stop, by which *absolutely instantaneous views* may be made, sharp all over to the very edges, without being diaphragmed down.

PRICE, EACH, \$40.00.

" P E E R L E S S "

Quick-Acting Stereoscopic Lenses FOR PORTRAITURE OR VIEWS.

We can also furnish the following, either single or in pairs:

These lenses are especially designed for Stereoscopic Photography, and are so constructed that they will work well for interiors or exteriors.

They are particularly adapted for instantaneous work.

Diameter of Lenses, $1\frac{1}{2}$ inches; focal length, $3\frac{1}{2}$ inches.

By removing the back lens and substituting the front combination, a focal length of $5\frac{1}{2}$ inches is obtained.

They are supplied with six Waterhouse Diaphragms in morocco case.

PRICE, PER PAIR, \$25.00.

Imitation Dallmeyer Lenses

FOR LANDSCAPES.

PRICE, PER PAIR, \$17.00.

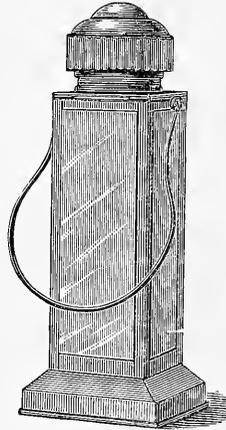
Undoubtedly the best Photo. Lenses yet produced. Amateurs will find these Lenses perfectly adapted to their use.

[See next page.]

THE SCOVILL DRY-PLATE LANTERN

PRICE, \$1.50 EACH.

Designed especially for use by the photographer or amateur in the dark-room, when developing plates and putting them in the plate holders. Guaranteed, when lighted and closed up, to throw out nothing but ruby rays. It has sixty-three square inches of glass, through which enough light shines to enable the occupant of the dark-room to watch the development of the largest size dry-plates made, and at the same time to see the chemicals and everything used in manipulation. The illustration here presented conveys a good idea of the lantern when closed.



In height the Scovill Lantern is a trifle over twelve inches, and is four and a half inches square. Each corner is protected by a strip of metal, which acts as a double safeguard. It not only prevents white light from the inside stealing out there, but it also keeps the four panes of ruby glass from any ordinary risk of breakage. For the latter reason the Scovill Dry-Plate Lantern is a great improvement over lamps with ruby chimneys, which, being unguarded, are so easily cracked or broken, and such a trouble to replace. In point of safety this lantern is infinitely to be preferred to a lamp of any style. By patented devices the top vent and the lower draft holes are so constructed that no white rays can escape through them, and thus the lantern is perfected for use in the dark-room.

SOME POINTS ABOUT THE NEW LANTERN.

It is readily extinguished.
It utilizes the entire wick.
It is not liable to crack the glasses.
It requires less than ordinary care to keep clean.
It is simple and easily understood.
It is not liable to get out of order.
It wants no skill, care, or attention in use.

It requires only to be kept in oil.
It gives at all times a symmetrical flame of maximum size.
It maintains a full and brilliant flame as long as the oil lasts.
It is easy to wick.
It is conveniently lighted.

For sale by Photographic Stock-Dealers, and the

SCOVILL MANUFACTURING CO.,

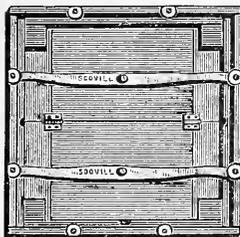
W. IRVING ADAMS, AGENT.

419 & 421 Broome Street, New York.

December 1, 1881.

ATWOOD'S PATENT REVERSIBLE

PRINTING



FRAME.

This Frame is square, and just as it is shown in the accompanying illustration. It is made with double corners, and in utility combines the action of the regular and the lengthwise Printing Frames. The back also is square, with small blocks cut out to fit the corners, thus allowing the back to be placed upon the negative so that the springs and hinges will extend either lengthwise or crosswise of the subject. The advantage of this action will easily be perceived.

Suppose the negative of a standing figure to have been placed in the Atwood Frame and the back put in with the springs parallel to the length of the subject. Either half of the backboard can be opened and thrown over on the other, in this manner allowing such an examination of the print as to show a view from the head to the foot.

Again, in printing from a group negative the back of the Atwood Frame can be placed to open crosswise of the negative, thus giving an opportunity when examining the print of seeing all the faces.

In printing a landscape where cloud negatives are used, and the back has been set in the manner just described, it is possible to contrast the sky with the other features of the view on the print.

There is no reason why prints from two 5 x 8 negatives of different subjects may not be made at one time in an 8 x 10 Atwood Frame. Other good uses will be apparent, and we need not enumerate them. The back can be made to open two-thirds instead of at the centre where so desired and ordered.

PRICE LIST

ATWOOD PATENT REVERSIBLE PRINTING FRAMES.

Size for 1-2 negatives, each,	\$0 75
» 4 x 4 »	90
» 8 x 10 »	1 20
» 10 x 12 »	1 60
» 11 x 14 »	2 75
» 13 x 16 »	3 50

Supplied by Photographic Stock-Dealers, and

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NEW YORK.

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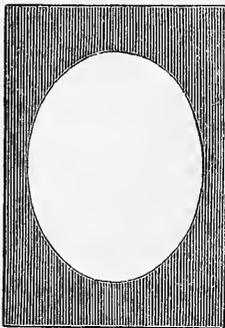
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It is applied with a brush, dries quickly and sticks.

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T H E

Philadelphia Photographer.

EDITED BY EDWARD L. WILSON.

Vol. XIX.

APRIL, 1882.

No. 220.

OUR PICTURE.

WE have much pleasure this month in giving our readers a series of pictures which ought to be a perpetual enjoyment to them. Those who have read *Pictorial Effect in Photography*, by Mr. H. P. Robinson, well know the ideas of this gentleman on the subject of *art* in photography. And doubtless there are hundreds of photographers in our country who have received their first inspiration in this direction from Mr. Robinson's clear instructive writings. We have given examples of his work in our magazine, two or three times previously, but this time we are enabled to present so many as nine studies in one picture, from some of his best summer's work. All will agree as to their artistic composition and to their superior merits. Our object in placing them before our readers is to prove by ocular demonstration, or *object teaching*, what beautiful things may be made with the camera, if the love of the beautiful be in the heart of the man who makes them as a component part of his nature. All will agree that if the pictures before them were separated from the figures, that they would amount to but little, and that it is the introduction of figures in his pictures that add the most peculiar charm to Mr. Robinson's productions. Every landscape photographer will understand that the figures cannot be obtained at the same time and upon the same negative as the landscape proper, and that resort must be had

to some method of combination with the out-door negatives in the printing. Of his resort to this practice Mr. Robinson makes no secret, but indeed commends it to all who would secure the most pictorial results. His motto is, secure pictorial effect in any legitimate way, no matter what it may be. On another page we reprint from Mr. Robinson's recent work, *The Art and Practice of Silver Printing*, the chapter which refers to the method by which these pictures are produced, viz., "Combination Printing," believing that the lessons thereon, together with the actual examples of work done, will prove of great value to those who desire to do all they can to further the growth of the photographic art. A few quotations from Mr. Robinson's letter which accompanied these prints must follow, then we leave them with our readers for their study and help.

Mr. Robinson writes as follows: "I send you seventeen 15 x 12 gelatine prints, and you may copy any of them. You will notice that they are nearly all subjects that would be very uncertain with the slow process. The out-door views were exposed from one to five seconds, and the interiors from twenty to forty seconds. Ten minutes would not have been too much for the latter with collodion, and the figures would have been, of course, impossible. I have not smelt collodion for more than a year now. The pictures were all taken at Gwysaney Hall, in North Wales. It is a grand old

Elizabethan mansion which my brother-in-law, Mr. H. S. Gossage, uses as a shooting-box and pleasure place. He has three thousand acres of the finest shooting in England, and three miles of river for fishing. He took a party of artists there at the end of last May meeting, and we had a splendid holiday. I exposed forty-six 15 x 12 plates in five or six days' work, working, perhaps, one or two hours a day, and they all turned out good when developed at home. The only fault I find with gelatine is uneven drying from uneven coating of the plates. The dark part on the right of the sky sometimes being caused by the gelatine film becoming thinner on that side. With a game-keeper to carry your camera and plates, there is no exertion; you can almost do the work with your hands in your pockets. I think that you will say that in nearly every case the figures make the picture."

We trust two good lessons will be obtained from these pictures. First, a lesson in combination printing; and second, the advantages of the emulsion process for outdoor work, saying nothing of its advantages in portrait practice. Mr. Robinson has given us something to work up to which we cannot reach for some time to come, and, like the works of Monsieur Adam Salomon, they will doubtless excite the best efforts of many, and the results will be a happy growth in the direction of pictorial effect in American photography. It is with this hope that we present them.

We ought to say that the copies were made by Mr. H. F. Smith, and it was no easy job to reproduce such small photographs of such excellent quality from such large originals. Those who contemplate work in the field during the coming season should not fail to give the new process a fair trial. If they do not, they will miss much enjoyment and many good results which they might just as well have.

JUST as we are going to press, the sad news of the death of M. Alphonse Poitevin, in his 63d year, reaches us. For the present we can only recall the fact of his many important discoveries connected with the permanent printing processes.

ECHOES FROM THE ORIENT.

CAIRO, THE CURIOUS.

AS soon as you enter Cairo, you are impressed with the idea that it is a place of more wealth, power, refinement, and progress, than Alexandria. And yet the people are the same, and the sights but little different from the sister city. Long before it is reached by rail, the great Pyramids are visible to the southwest, and all the time you find yourself saying, mentally, "Now *I am* in Egypt, for there are the Pyramids."

I am a great believer in the art photographic, and yet I am disposed to think it has deprived me of part of the pleasure, part of the feeling, which I had always expected would come over me when I first looked upon those great piles, so familiar have I become with their site and shape by means of photographs. But, in reality, I have only seen their snubbed apices sticking up in the distance over the tall date-palms, and I will not begin to condemn my art yet.

As we drove from the depot through the crooked, curious thoroughfares, we seemed to get more and more in a tangle. Now along narrow passages, whose buildings were balconied with beautiful lattice-work which reached almost to its opposite neighbor, sometimes meeting it more than half way; then suddenly coming out into the sunshine amidst a lot of broken-down buildings, and crushed-in walls which seem to have fallen in for want of repair; and then again through a wider passage, protected overhead from the sun by a waggish-looking bamboo roof, reaching from side to side, until a long arcade, built for a similar purpose, is reached, and we are at the Hotel Royal.

No time is lost at lunch, for there is much to see here; and to see a tithe of it, one must be constantly on the alert.

The streets are crowded with Arabs, whose never-ending clatter and calling, and backsheesh begging, and donkey offering, would tend to make you believe you were in Bedlam, had not your experience at Alexandria taught you to be a philosopher. Indeed, I learned in Italy, years ago,

to pay no more attention to the appeals of the natives, or to regard their cries, than I would to the clatter of machinery in any manufactory I might visit. If you allow yourself to become nervous and uneasy because of the attacks made upon you by a thousand tongues which you do not understand, you are a doomed man. If you dare to yield to the temptation of responding, or noticing in any way what is said to you, there is sure to follow an attack of Syrian fever, and another distinguished funeral in the English cemetery. Your only safe way is to go on and observe the machinery and the mysteries thereof without paying one bit of attention to its noise—if you would be happy.

It is curious to notice how a day begins in Cairo. I made my observations entirely from my bed. Being an early riser, I awoke at my usual hour, and it was yet dark, for there is but a short twilight here. Suddenly my chamber was filled with a glow of morning light. Everything was as still as night. Then I heard a noisy cock crowing, followed by the barking of a dog under my window. The alarm was taken up by dozens of these public canine scavengers, whose only home is in the streets, and carried, street by street, into the far distance, for I could hear the responses, one after the other, as I used to hear the answer of the guardsmen in the picketed field twenty years ago or more. Then would come the first infernal yell of the morning. It was the—milk-man. I knew it, for his first signal of distress brought me out upon the balcony in less time than I can tell you, thinking some one was being murdered. My sympathy was wasted. There were seven or eight placid, cheerful, bleating goats being driven from door to door by their masters, whose work it was to deliver milk in quantity to suit the purchaser, and directly from—headquarters. Now the trouble of the street fairly began, for there was a donkey-stand opposite our hotel, and the braying beasts came up to time with their Arab drivers, or "boys," screeching "Oye-yah" at them with violent vociferations unequalled outside of "Gehennah," which latter is the name of a place I often hear whispered into the donkey ear, should

he show his driver the least sign of laziness. Now the day is fairly begun, and the circus is in full blast; and by the time breakfast is over, everything is ready for your inspection and your delectation. Let us go out and see. Here and there we still find a sleeping sluggard, sometimes hoisted a foot above the pavement by a willow mattress on which he lies—always well covered. Perhaps that is all the home he has in the world, so we do not even touch the old coffee-sack or gunny-bag under which he has curled himself up for his nap, for the sunshine will reach him soon, and then he will arise and go to the work of the day, for as a rule there is not a lazy bone in the Arab's body. A little further on and we see the early risers eating their breakfast, squatted together in groups around a little stove, where they "pool" and cook their coffee and discuss a dozen dates or some pumpkin-seeds as a prelude to the music of the coffee-pot. Then comes the carriage of a merchant or banker going to his desk. Two handsome young Arabs precede it on foot, running faster than the horses. They are dressed in white, clean and fair, trimmed with golden lace and bullion, and red fezzes, with black tassels reaching to their shoulders, set well back upon their heads. Their shoulders are thrown well back, the arms half lifted, and in the right hand a long stick of bamboo. And as they run, they cry: "Make way! look out for your shoulder! look out for your ear! look out for your neck! look out for yourself! to the right! to the left! make way for my master! make way!" Every one is busy, and every vendor, every Arab, is bound to let you hear what his business is, long before you near him, that you may think well whether or not you need his willing service. There is no confusion, no quarrelling, but the most extreme good nature prevails. You would think, from their demonstrative manner, and their fearful shriekings, that they were about to tear each other apart, and yet I never saw one Arab strike a blow at another, or show any unkindness. Even between donkey and driver there is a perfect understanding. The poor beast is continually punched in the rear, alternated by a twist of the tail, to make him go, or pushed

bodily to the right or left, or again taken by the head and *lifted* to suit the inclination of his master; but he takes it humbly and cheerfully, and he is to his master always a "good donkey," and well beloved. I have watched the "donkey boy" for half a block as he carried his donkey's noon-tide meal of chopped straw to him. I never saw such coddling, and spooning, and love signaling, and mutual understanding, in all my life. The boy's face was beaming with smiles while he called to his donkey in the softest tones; and he of the delicate hoof, and deficient tail, and humble physiognomy, would shake his head, and snap his eyes, and wag his ears, in a way that brought that chopped straw to his hungry mouth as surely as love breeds love. It was quite touching to see the satisfaction there was on both sides. Oh, how I wished for my camera then!

The street cries here are peculiar, and so different from those in Paris. You have often seen in the drug stores a little ball tossed up and down under a glass globe or shade by the spray from a soda-fountain. Sometimes the ball rises higher and higher until it seems to be lost, and then an eccentricity in the supply of power underneath causes it to fall down with a thud. The last is like the Parisian street cry, which starts plaintively enough, then rises higher and higher, until it begins to sound prettily, and finally it drops like a guillotine and hurts your ear. The Arab cry goes up, and up, and up, beautifully, unto its ceasing, for everything is devoted to *Allah*, and Allah is "up."

As in Alexandria, so here the women do much of the freightage upon their heads. Nearly all are tattooed on their chins, which makes them look as if there was a fair chance for an *imperial* thereabouts. Whatever wealth of gold they have, they carry about them in the form of necklaces, ear-rings, and bracelets, made up of strings of gold coins. Some are well laden with such treasures. It would be a good place for some enterprising woman of Boston to come to, to start a saving fund. The babies are plentiful, and are carried astride the shoulder of the mother. They take their naps contentedly by folding their little arms upon the top of the maternal head, and, re-

clining thereupon, are soon asleep. Some of the children are very pretty, and of a certain class, as soon as they can talk, they are taught to put out their hands and with *such* snapping, seductive black eyes and pretty teeth, lisp out a cry, as cute as cute can be, for "*back-seesth*." The women seldom ride donkeys, but when they do, they sit astride and swing their gaudily-slipped and pretty feet to and fro, with as wide a segment as the lamp of Galileo at Pisa Cathedral swingeth.

And so the circus continues. Nubian dancers, bread-sellers, sieve-makers, copper-smiths, who beat out their quaint vessels with the hammer; porous pottery dealers, marble cutters, who squat at their front doors and let you into the secrets of Arabic tombstone nomenclature; bean breakers, who, with huge mortars and iron pestles five feet long, stand in rows and crush the beans into a mass for the baker; coffee crushers, whose method is similar; donkey-saddle makers, shoemakers, blacksmiths, colored candle makers and candle decorators for mosque use, bead stringers, Koran dealers, money changers, jewellers, Arabs, Nubians, Abyssinians, Turks, Armenians—all join in the show, and act well their part from morning until the end of the day. And then, when the crowd is gone, the street-sprinkler comes with his skin of water on his back, and, turning from side to side, scatters Nile water from right to left and prepares the way for a repetition of the dazzling panorama next day.

There are hundreds of mosques here, but I see more praying in the streets than elsewhere.

The Mosque of Mohammed Ali is a real sight, since it is built almost entirely of alabaster.

Backsheesh admitted my camera, and my consent to having a pair of red slippers tied over my boots, admitted me, and together we made some views of the gaudy interior. Poor Ali's tomb can only occupy one small corner, and about it were groups eating lunch, sluggards asleep, penitents praying, sellers of cigarettes and slippers, liars to us, and lovers of Mohammed; dealers in "antiques" and adorers of Mecca, sinners and sanctimonious scamps, washers

of feet and wranglers over backsheesh, singers and swearers in great abundance.

Although falling to pieces, I liked the interior of the Mosque of Sultan Hassan better. It must have been a glorious example of Saracenic Art five hundred years ago. Even now its interior makes better pictures for the camera than Ali's folly. Should you feel interested in it, Miss Martineau and Lord Houghton will tell you all about this "*simple, unpartitioned room, surmounted by an ample dome.*"

My carriage has come to take me to the great Pyramids, and since I have had a desire to see them shoulder to shoulder for fifteen years, I must go.

Very truly yours,
EDWARD L. WILSON.

THE RIVES PAPER MANUFACTORY.

FIVE hundred and sixteen kilometres southeast from Paris, between the great silken city of Lyons and the old walled town of Grenoble, in the department of Isere, is located a little market town of about 2300 inhabitants, which is of more importance to the art of photography than perhaps any other one place in Europe. I allude to the town of Rives, where is located the manufactory of the plain paper so well known to every photographer in the world, I might safely say, and bearing the name of the place I have named.

As one nears Rives by rail at this season of the year the snow-clad peaks of the Colline de Parménie loom up in the distance, and presently we run along the crest of a hill, which with the mountain forms a deep cut or ravine, in which is located the object of our visit—the manufactory of Rives paper. It is a beautiful spot, and although seemingly at our feet as we approach the station, we must drive nearly two miles to reach it. So, landing at the station, a quaint, rattlettrap of a carriage is offered us by the sturdy driver, the circumference of whose hat is equivalent to that of his stomach and appendages, and we take it for the drive. We passed through the main street of the village, and wished at every turn for our '76 camera, so plenteously did the pic-

turesque bits present themselves. The morning was frosty and cold, and the keen air gave us a relish for whatever was presented for our attention.

Arriving at the office of the manufacturers, the presentation of our card at once secured us the best of attention and every courtesy the heart could desire. After our special business had been transacted we were shown about the premises, and the entire process of manufacture explained to us by M. Klebe, a member of the wealthy firm who conduct the immense business here. It seems that these gentlemen also manufacture writing and blank-book paper very extensively, but for this they have an entirely separate establishment, perhaps a quarter of a mile away from the other. We were shown through this, but as it seemed to be much like our own American paper mills, no description of it need be given here, so we will proceed at once to the mills which interest us the most. As we walked along the great sluices which conveyed the water to the mills were seen for at least half a mile. These were all covered in, to prevent contamination by thoughtless or mischievous hands. The water is brought from a mountain lake called *La Fuve du lac Solodin* by means of the *Riviere du Beaumont*, and is received at the mills in ponds or tanks. These latter are first given a hard, artificial bottom of washed gravel, which in turn is covered by layers of pebbles, which are most carefully washed before they are allowed to be placed in the tank, and before the water enters the tanks, it is carefully filtered, so that it is very clear and clean, and the pebbled bottoms of the tanks may be clearly seen. But this is not the only means taken to secure the purest possible water for the manufacture of the paper. As it enters the mills it is received into separating pipes, which pour their crystal contents forth into troughs lined with thick woollen or flannel cloth, thus securing a second and most careful filtration. After this the water runs into small stone tanks lined with cement, from which it is drawn as needed for the manufacture of pulp. Now we pass on and behold the various processes followed for the manufacture of the paper, which in nearly all their details

are similar to those adopted in the manufacture of the best writing paper.

Great tiers of bins were shown where tons of clean rags were stored for future use. Then came the grinding mills, the bleaching process, the washing of the pulp in circular tanks, where it was kept in motion by a system of spiral wheels of great diameter, provided with automatic blankets similar to those of an Egyptian irrigating machine. Around and around these travelled, catching up the pulp and emptying it out again in a different place, never tiring or stopping until the desired end was accomplished. Thus, too, the "size" was intermixed with the pulp, and finally it entered the tank at the end of the giant machine with its hot cylinders and jiggling cranks and sieves, which were to assist in forming the hard sheets of proper thickness, as ordinary paper is produced. The paper comes from the machine in what are called "endless rolls," and is received upon a cylinder provided for the purpose. Just before it is thus received other cylinders drop automatically down upon it for a moment. At proper distances apart, upon these, the *brand* of the factory is engraved, and by gentle pressure, as the roll revolves, imprints the trade-mark upon what will, when cut to size, be the margin of each sheet. After the receiving rolls are full they are presented to the cutting machine, where the paper is rolled off, cut to size, sent to the inspecting-room, and after inspection to be calendered. In the inspecting-room are long counters or tables, with many windows opposite. At each window sits a woman with a pile of sheets before her, and she is required to carefully inspect each one, throwing out any that are perforated or spotted. Her eyes must be those of an eagle, for her work is done rapidly. She seems to cover the whole surface of a sheet at one time, and must use a wide angle Morrison lens in her eye and expose the sheets by means of the J. C. B. plates, and certainly her "drop" of each sheet is "instantaneous."

After the sheets are inspected they are carried to the calendering machine. This is the most magnificent machine of the kind I have ever seen. The rolls are about 9 inches in diameter, and, I should think,

about 48 inches long—long enough for two sheets of paper to pass side by side at one time. There are three double tiers of these rolls. Each tier is attended by two women, who feed and receive the sheets. Three times each sheet must submit to the very affectionate squeeze of these calenders before it is considered sufficiently glossy and hard for the rough treatment to which it must be subjected by the photographer. If it bears all this well, it is allowed the honor of a place in some honestly counted ream, and wrapped up with its 479 confrères and sent with sealed orders to one part of the world or another. America is certainly the largest market for this kind of paper, 3,600 reams going to New York during the past year—in a little less than a year, I was informed.

From the rag to the finished sheet there are *nine operations*, and *ten days* are required to produce a sheet of paper. About 500 people are employed at Rives, and the large proportion are women. They all wear the huge wooden shoes so much used in France and Belgium, and the clatter of them upon the stone floors and pavements is something noisy. I saw a pair of these shoes hung up to-day, which were almost large enough for one of the receiving water tanks. All through the several departments the most conscientious care was apparent, lest something should occur to cause impurity or failure. Ten years ago we all remember that Rives paper was not only pestiferous on account of tiny metallic specks all through it, but it was so tender that one could scarcely bring it through the necessary manipulations without tearing it. All such annoyances have disappeared, and to-day *papier Rives* is the leading paper of the world, because it is the very best, and because the skillful manufacturers have persisted until they have produced a perfect article. My visit was very interesting to me and well repaid me for the thirty hours it cost. A drive with Mons. Klebe ended the happiness of the visit, and then a whirl down to Brindisi, Italy, whence I took the steamer for the Orient.—EDWARD L. WILSON in the *Photographic Times*.

READ Wilson's *Photographics*. It contains valuable information.

EXHIBITION OF THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.

As announced in our last number, the exhibition of the Society came off on the evening of Tuesday, March 7th, at the Hall of the Young Men's Christian Association, corner of Fifteenth and Chestnut Streets. The lanterns were in charge of Mr. Long, assisted by Mr. G. W. Hewitt, first vice-president of the Society. The slides—the work of the members exclusively—were projected upon a twenty-five-foot screen on the stage, and were explained as far as possible by Mr. Wallace, who also called the attention of the audience to an instantaneous drop before the lights were turned down; saying, that as a large proportion of the pictures to be shown were instantaneous, it might prove interesting to those present to understand the simple mechanism by which they were made.

The work shown was of a highly varied character, comprising, besides what we have already mentioned, landscapes both at home and in foreign countries—South Africa, Van Diemen's Land, Germany, Belgium, England, etc., some excellent studies of animals, and views of certain local antiquities—the Swedes' Church, Wilmington, among others. The exhibition was preceded by a short account of the objects for which the Society was founded, and what it hoped to accomplish; and during the evening allusion was made to the fact that by far the greater number of the pictures were made without any idea of their ever being publicly exhibited, so that many ranked simply as "studies."

The exhibition was a success in every way. The audience numbered nearly eight hundred, and testified their satisfaction by continual applause. The members of the Society have every reason to congratulate themselves upon this step in advance, and may feel that such a public appearance must be accompanied by an increase of usefulness, as well as the mere pleasure given to their friends. Flattering newspaper notices appeared the following morning.

Don't fail to read our advertisement pages.

COMBINATION PRINTING.

THE scope of photography is wider than those who have only taken a simple portrait or landscape suppose. It is almost impossible to design a group that could not have been reproduced from life by the means our art places at our disposal. We do not mean to assert that such subjects as Michael Angelo's "Last Judgment," or Raphael's "Transfiguration," for instance, have ever been done in photography; but it is not so much the fault of the art as of the artists that very elaborate pictures have not been successfully attempted. It has not been the failing of the materials, unplastic as they are when compared with paint and pencils; it has been the absence of the requisite amount of skill in the photographer in the use of them, that will account for the dearth of great works in photography. The means by which these pictures could have been accomplished is combination printing, a method which enables the photographer to represent objects in different planes in proper focus, to keep the true atmospheric and linear relation of varying distances, and by which a picture can be divided into separate portions for execution, the parts to be afterwards printed together on one paper, thus enabling the operator to devote all his attention to a single figure or subgroup at a time, so that if any part be imperfect, from any cause, it can be substituted by another without the loss of the whole picture, as would be the case if taken at one operation. By thus devoting the attention to individual parts, independently of the others, much greater perfection can be obtained in details, such as the arrangement of draperies, the refinement of pose, and expression.

The most simple form of combination printing, and the one most easy of accomplishment and most in use by photographers, is that by which a natural sky is added to a landscape. It is well known to all photographers that it is almost impossible to obtain a good and suitable sky to a landscape under ordinary circumstances. Natural skies are occasionally seen in stereoscopic slides and very small views; but I am now writing of pictures, and not of toys. It rarely happens that a sky quite suitable to

the landscape occurs in the right place at the time it is taken, and if it did, the exposure necessary for the view would be sufficient to quite obliterate the sky; and if this difficulty were obviated by any of the sunshades, cloud-stops, or other inefficient dodges occasionally proposed, the movement of the clouds during the few seconds necessary for the landscape would quite alter the forms and light and shade, making what should be the sky—often sharp and crisp in effect—a mere smudge without character or form. All these difficulties are got over by combination printing, the only objections being that a little more care and trouble are required, and some thought and knowledge demanded. The latter should be considered an advantage, for photographs, of the inferior kinds, are already too easy to produce. Of course, when a landscape is taken with a blank sky, and that blank is filled up with clouds from another negative, the result will depend, to a very great degree, upon the art knowledge of the photographer in selecting a suitable sky, as well as upon his skill in overcoming the mechanical difficulties of the printing. It is not necessary here to enter into a description of the art aspect of the matter, as that has often been discussed; so we will confine ourselves to the mechanical details.

The landscape negative must have a dense sky, or, if it be weak or have any defects, it must be stopped out with black varnish. In this case it is better to apply the varnish to the back of the glass; by this means a softer edge is produced in printing than if painted on the varnished surface. With some subjects, such as those that have a tolerably level horizon, it is sufficient to cover over part of the sky while printing, leaving that part near the horizon gradated from the horizon into white.

It may here be remarked that in applying black varnish to the back of a negative, occasions will often be found where a softened or vignettted edge is required for joining, where a vignette glass or cotton-wool cannot be applied. In such cases the edge of the varnish may be softened off by dabbing slightly before it is set, with the finger, or, if a broader and more delicately gradated edge be required, a dabber made with

wash-leather may be employed with great effect.

When an impression is taken, the place where the sky ought to be will, of course, be plain white paper; a negative of clouds is then placed in the printing frame, and the landscape is laid down on it, so arranged that the sky will print on to the white paper in its proper place. The frame is then exposed to the light, and the landscape part of the picture is covered up with a mask edged with cotton-wool. The sky is vignettted into the landscape, and it will be found that the slight lapping over of the vignettted edge of the sky negative will not be noticed in the finished print. There is another way of vignetting the sky into the landscape, which is, perhaps, better and more convenient. Instead of the mask edged with cotton-wool, which requires moving occasionally, a curved piece of zinc or cardboard



is used. Here is a section of the arrangement. The straight line represents the sky negative, and the part where it joins the landscape is partly covered with the curved shade. Skies so treated must not, of course, be printed in sunlight.

It is sometimes necessary to take a panoramic view. This is usually done, when the pantoscopic camera is not employed, by mounting two prints together so that the objects in the landscape shall coincide; but this is an awkward method of doing what could be much better accomplished by combination printing. The joining of the two prints is always disagreeably visible, and quite spoils the effect. To print together the two halves of a landscape, taken on two plates, the following precautions must be observed: Both negatives must be taken before the camera stand is moved; the camera, which must be quite horizontal, pointing to one-half of the scene for the first negative, and then turned to the remaining half of the view for the second negative. The two negatives should be obtained under exactly the same conditions of light, or they will not match; they should

also be so taken that a margin of an inch and a half or two inches is allowed to overlap each other—that is to say, about two inches of each negative must contain the same or centre portion of the scene. It is advisable, also, that they should be of the same density; but this is not of very great consequence, because any slight discrepancy in this respect can be allowed for in printing. In printing vignettes with cotton-wool or a straight-edged vignette glass, place the edge of the left-hand negative on the side that is to join the other, taking care to cover up the part of the paper that will be required for the companion negative. When sufficiently printed, take the print out of the frame, and substitute the right-hand negative; lay down the print so that it exactly falls on the corresponding parts of the part first printed (this will be found less difficult, after a little practice, than it appears), and expose to the light, vignetting the edge of this negative also so that the vignettted part exactly falls on the softened edge of the impression already done. If great care be taken to print both plates exactly alike in depth, it will be impossible to discover the join in the finished print. If thought necessary, a sky may be added, as before described, or it may be graduated in the light, allowing the horizon to be lighter than the upper part of the sky.

Perhaps the greatest use to which combination printing is now put is in the production of portraits with natural landscape backgrounds. Many beautiful pictures, chiefly cabinets and card, have been done in this way by several photographers. The easiest kind of figure for a first attempt would be a three-quarter length of a lady, because you would then get rid of the foreground, and have to confine your attention to the upper part of the figure and the distance. Pictures of this kind have a very pleasing effect. In the figure negative everything should be stopped out, with the exception of the figure, with black varnish. This should be done on the back of the glass when practicable, which produces a softer join; but for delicate parts—such as down the face—where the joins must be very close, and do not admit of anything approaching to vignetting, the varnish must

be applied on the front. A much better effect than painting out the background of the figure negative is obtained by taking the figure with a white or very light screen behind it. This plan allows sufficient light to pass through the background to give an agreeable atmospheric tint to the distant landscape; and stopping out should only be resorted to when the background is too dark, or when stains or blemishes occur that would injure the effect. An impression must now be taken which is not to be toned or fixed. Cut out the figure, and lay it, face downward, on the landscape negative in the position you wish it to occupy in the finished print. It may be fixed in its position by gumming the corners near the lower edge of the plate. It is now ready for printing. It is usually found most convenient to print the figure negative first. When this has been done, the print must be laid down on the landscape negative so that the figure exactly covers the place prepared for it by the cut-out mask. When printed, the picture should be carefully examined, to see if the joins may be improved or made less visible. It will be found that, in many places, the effect can be improved and the junctions made more perfect, especially when a light comes against a dark—such as a distant landscape against the dark part of a dress—by tearing away the edge of the mask covering the dark, and supplying its place by touches of black varnish at the back of the negative. This, in printing, will cause the line to be less defined, and the edges to soften into each other. If the background of the figure negative has been painted out, the sky will be represented by white paper; and as white paper skies are neither natural or pleasing, it will be advisable to sun it down.

If a full-length figure be desired, it will be necessary to photograph the ground with the figure, as it is almost impossible to make the shadow of a figure match the ground on which it stands in any other way. This may be done either out of doors or in the studio. The figure taken out of doors would, perhaps, to the critical eye, have the most natural effect; but this cannot always be done; neither can it be, in many respects, done so well. The light is more unman-

ageable out of doors, and the difficulty arising from the effect of wind on the dress is very serious. A slip of natural foreground is easily made up in the studio; the error to be avoided is the making too much of it. The simpler the foreground is in this case, the better will be the effect.

The composition of a group should next engage the student's attention. In making a photograph of a large group, as many figures as possible should be obtained in each negative, and the position of the joints so contrived that they shall come in places where they shall be least noticed, if seen at all. It will be found convenient to make a sketch in pencil or charcoal of the composition before the photograph is commenced. The technical working out of a large group is the same as for a single figure.

At first sight, it will appear difficult to place the partly-printed pictures in the proper place on the corresponding negative. There are many ways of doing this, either of which may be chosen to suit the subject. Sometimes a needle may be run through some part of the print, the point being allowed to rest on the corresponding part of the second negative. The print will then fall in its place at that point. Some other point has then to be found at a distance from the first; this may be done by turning up the paper to any known mark on the negative, and allowing the print to fall upon it. If the two separate points fall on the right places, all the others must be correct. Another way of joining the prints from the separate negatives is by placing a candle or lamp under the glass of the printing frame—practically, to use a glass table—and throwing a light through the negative and paper. The join can then be seen through. But the best method is to make register marks on the negatives. This is done in the following manner: We will suppose that we wish to print a figure with a landscape background from two negatives, the foreground having been taken with the figure. At the two bottom corners of the figure negative make two marks with black varnish, thus: . These, of course, will print white in the picture. A proof is now taken, and the outline of the figure cut out accurately. Where the foreground

and background join the paper may be torn across, and the edges afterwards vignettted with black varnish on the back of the negatives. This mark is now fitted in its place on the landscape negative. Another print is now taken of the figure negative, and the white corner marks cut away very accurately with a pair of scissors. The print is now carefully applied to the landscape negative, so that the mark entirely covers those parts of the print already finished. The landscape is then printed in. Before, however, it is removed from the printing frame, if, on partial examination, the joins appear to be perfect, two lead pencil or black varnish marks are made on the mark round the cut-out corners at the bottom of the print. After the first successful proof there is no need for any measurement or fitting to get the two parts of the picture to join perfectly; all that is necessary is merely to cut out the little white marks, and fit the corners to the corresponding marks on the mask; and there is no need to look if the joins coincide at other places, because if two points are right, it follows that all must be so. This method can be applied in a variety of ways to suit different circumstances.

There are one or two things to consider briefly before concluding this subject. r

It is true that combination printing—allowing, as it does, much greater liberty to the photographer, and much greater facilities for representing the truth of nature—also admits, from these very facts, of a wide latitude for abuse; but the photographer must accept the conditions at his own peril. If he find that he is not sufficiently advanced in knowledge of art, and has not sufficient reverence for nature, to allow him to make use of these liberties, let him put on his fetters again, and confine himself to one plate. It is certain (and this we put in italics, to impress it more strongly on the memory,) that a *photograph produced by combination printing must be deeply studied in every particular, so that no departure from the truth of nature shall be discovered by the closest scrutiny.* No two things must occur in one picture that cannot happen in nature at the same time. If a sky is added to a landscape, the light must fall on the clouds and on the earth from the same source and

in the same direction. This is a matter that should not be done by judgment alone, but by judgment guided by observation of nature. Effects are often seen, especially in cloud-land, very puzzling to the calm reasoner when he sees them in a picture; but these are the effects that are often best worth preserving, and which should never be neglected, because it may happen that somebody will not understand it, and, therefore, say it is false, and, arguing still further on the wrong track, will say that combination printing always produces falsehoods, and must be condemned. A short anecdote may, perhaps, be allowed here. Some time ago a photograph of a landscape and sky was sent to a gentleman whose general judgment in art was admitted to be excellent; but he knew that combination printing was sometimes employed. In acknowledging the receipt, he said: "Thank you for the photograph; it is a most extraordinary effect. Sensational, certainly, but very beautiful; but it shows, by what it is, what photography cannot do. Your sky does not match your landscape; it must have been taken at a different time of day, at another period of the year. A photograph is nothing if not true." Now, it so happened that the landscape and sky were taken at the same time, the only difference being that the sky had a shorter exposure than the landscape, which was absolutely necessary to get the clouds at all, and does not affect the result. Another instance arose in connection with a picture representing a group of figures with a landscape background. Four of the figures were taken on one plate, at one operation; yet a would-be critic wrote at some length to prove that these figures did not agree with one another; that the light fell on them from different quarters; that the perspective of each had different points of sight; and that each figure was taken from a different point of view. These two cases are mentioned to show that it is sometimes a knowledge of the means employed, rather than a knowledge of nature—a foregone conclusion that the thing must be wrong, rather than a conviction, from observation, that it is not right—that influences the judgment of those who are not strong enough to say, "This thing is right,"

or "This thing is wrong, no matter by what means it may have been produced."—From *The Art and Practice of Silver Printing*, p. 68.

GELATINE DRY-PLATES.*

BY JOHN C. BROWNE.

To those who are familiar with the preparation of gelatine plates, and have become thoroughly experienced in their development, I have nothing to suggest, my object in writing this paper being to assist those who know little or nothing about photography, and who desire a few hints on the subject in as plain words as is possible.

Gelatine dry-plates are made of different degrees of rapidity; the most rapid requiring an exposure of only a fraction of a second with quick-working lenses; the next grade being somewhat less rapid, while others have about the quickness of the wet collodion process. The first mentioned require the most careful treatment, as it is with them that the greatest amount of failures occur. In the hands of inexperienced operators, when experimenting with animals, vessels, etc., it is safest to use the most rapid plates only with an instantaneous drop or shutter adapted to a portrait lens with a large stop, as the error is more likely to be from over-exposure than from under-exposure; by this means the time is cut down to about one-fortieth of a second, which is correct for objects brilliantly illuminated. These plates can also be used with short-time exposures for making groups both in and out of the studio, but care must be taken in out-door exposures upon groups that the background is dark, for if any patch of sky or excessive high light be present, solarization may occur and spoil the picture. It is a safe rule never to use these extra-rapid plates for ordinary landscapes, as they are not intended for that purpose, and will almost always fail to give satisfaction when the attempt is made. Next in rapidity is a quality of plate intended for quick work, but more easily managed in the development, and less liable to solarize than the first described. This plate allows considerable latitude in exposure, and may be used with small stops for taking land-

* Read before the Photographic Society of Philadelphia.

scapes, groups, buildings, etc. Upon several occasions when using these plates with a large opening of a portrait lens and instantaneous exposure, I have made good pictures of swift-moving vessels, but in each case the light was intense. One advantage that these plates have over the most rapid is that, if time enough be given, the development will proceed slowly, and under perfect control, gaining proper density by the action of the developer alone, without after intensification. The slowest grade of plate is, perhaps, better suited for beginners, for the reason that there is still greater latitude in exposure. They are very reliable in general out-door work, and are admirably suited for the production of glass positives, the magic lantern slides having the brilliancy peculiar to gelatine combined with the exquisite delicacy of albumen—two most remarkable qualities.

Having traced the peculiarities of the different grades of gelatine dry-plates sufficiently in detail for my purpose, I will now proceed with the development. I think it proper at this point in my subject to say that while there are excellent authorities upon gelatine work who urge the adoption of alkaline development in *all* cases, I must differ from them most decidedly in some particulars. The argument has been repeatedly advanced that a gelatine plate developed by ferrous-oxalate was under no control after being placed in the solution. Under-timed or over-timed, the development must go on with no chance for correction. If the exposure was right, the negative might be satisfactory, otherwise it would be impossible to do anything to save it.

In certain conditions, alkaline development seems to be a necessity; for example, instantaneous work, and where under-timing is to be apprehended. But in a large majority of time exposures, I have found that the development by ferrous-oxalate is much easier to manipulate and more reliable. An over-timed plate that in the hands of a beginner would be ruined by alkaline treatment, can in many cases be saved if ferrous-oxalate be used.

Beginners often make a great mistake in commencing their photographic experience by trying to make pictures of dark parlors

or dining-rooms, giving from a few seconds' to several minutes' exposure, thinking that as gelatine is so rapid it will accomplish anything, and wondering after development why the picture will not appear. If instead of seconds or minutes, hours or days had been given, the picture might have been forthcoming. In making interiors the presence of excessive high lights and reflections are much to be feared, and the inexperienced operator will be firmly persuaded that his dry-plates are not of good quality, whereas the only fault is in his want of experience. Let out-door photography be mastered first, then interiors can be attempted with success. For lantern slides, the last-mentioned plan of development is far preferable.

We will now suppose that the operator has purchased a proper outfit, and is ready for an excursion into the country, having a landscape lens and gelatine dry-plates of ordinary rapidity. In deciding upon a point of view, be particular never to allow the sun's rays to touch the lens, but arrange the camera so that the sun shall be behind it. For the first experiments use a small stop, selecting a subject that is evenly illuminated, and expose several plates upon the same view, giving the shortest and longest time consistent with subject and illumination. Keep accurate notes of all exposures, numbering each plate, giving lens, time, stop, and condition of light. By carefully observing these rules, rapid progress will be made, and the beginner will soon learn to time correctly.

Having returned from the expedition, mix a quantity of the following solutions:

1.—Ammonium Bromide,	. . . . .	29 grains.
Potassium Oxalate,	. . . . .	5 ounces.
Water,	. . . . .	20 “

make slightly acid with oxalic acid.

2.—Iron Protosulphate,	. . . . .	100 grains.
Water,	. . . . .	1 ounce.
Acid Sulphuric,	. . . . .	1 drop.

As these solutions, in separate bottles, will keep indefinitely, I would strongly advise half a gallon of No. 1, and a pint of No. 2 be made at one time in the proportions given. This will save the constant weighing and measuring that would be necessary

in making small quantities. A suitable dark-room having been provided, which must be perfectly free from white light, and, if possible, having water-pipes introduced into it, proceed to arrange the lights by which the development can be observed. For this purpose a ruby lantern burning oil can be used with perfect safety.

Everything being in order, pour into a graduated measure four ounces of No. 1, and add to it one ounce of No. 2. This amount is often sufficient to develop half a dozen 5x4 negatives. Stir the mixture with a glass rod, and pour the solution into a shallow agate-ware dish, which I recommend in preference to the black hard-rubber dishes often used for this purpose. The agate-ware, being cream-color, reflects light upon the plate; it has an advantage over porcelain, as it will not break, being made of iron, and covered with some acid-proof composition. Remove an exposed plate from the dark-holder or double-back, take it in one hand and tilting the dish with the other, by a quick movement immerse the plate film up, being careful to cover its surface by one sweep of the solution. In the course of a few seconds the image will slowly appear, gaining strength gradually; judge of the progress of development by looking through the plate, holding it close to the light, and when all portions of the picture appear to be strongly impressed, remove it from the solution and wash it in running water for some time to remove the iron salt; afterwards put the plate in a dish containing a strong solution of hyposulphite of soda, keeping it moving at first. After it is perfectly cleared or fixed, wash thoroughly in water and place in a rack to dry. Formerly it was advised to plunge the plate into a solution of alum to harden the film and prevent filling, but that is not worth considering at present, as all trouble of that kind appears to have been overcome by the manufacturers. It is of the greatest importance when working with gelatine to have command of a large supply of water, free from sediment, as gelatine when it is wet is practically glue, and the small particles in water that would not attach themselves to a collodion film will stick to gelatine, so that it is often impossible to remove them, and will

make unsightly spots when dry. We will now suppose that the operator has become proficient in time exposures, and wishes to try instantaneous pictures. For this branch of photography a portrait lens will be required which will admit of rapid exposure and has great depth of focus. It will also be necessary to have some form of drop attached to the lens, either by having a slit cut in its brass work before or behind the stop, through which a strip of brass having an opening in it shall fall, or some like arrangement fastened to the front flange of the lens. Many ingenious contrivances have been suggested for this purpose, but it is not advisable to note them here. The plate-holders having been filled with the most rapid plates, see that every part of the camera is light-tight, having previously examined the holders for the same purpose. Select a good solid tripod on which to place the camera, and the operator is ready for rapid-exposures. We will assume that the object to be taken is a moving vessel, and the location of the camera the bank of some river where steamboats and vessels of various kinds are frequently passing. The first step is to place the tripod firmly on the ground, adjust and level the camera, either by the eye or, better, by the aid of a small spirit-level. Focus upon a passing vessel that is thought to be in the proper position, using to assist the eye a strong magnifying glass, and be sure that the focus is rightly adjusted, next remove the ground-glass, place the drop in position to cover the lens, attach the holder to the camera, and lay a dark cloth over both, so that when the slide is drawn no light will pass into the holder. Everything is now ready for the first shot. Soon a swift-moving steamboat is seen approaching, and the operator will need his nerves well braced up, or some error will cause his photographic gun to miss fire. Draw the dark slide, and with a finger on the trigger of the drop, wait until the boat is in the right position; be steady, aim at the smoke-stack, and fire. The only report is the sharp click of the falling drop, but if everything was properly done, after development the rushing steamboat, together with the rippling water and passing clouds, will be found impressed on the sensitive

plate with a truthfulness that is marvellous. But to return to the camera, replace the dark slide and note any fact that may be of interest, not forgetting to mention the number of the plate exposed, as by this book of record the fault of placing two impressions on the same glass may be avoided, making in time a valuable book of reference. In taking pictures of animals, where the image on the ground-glass is quite large, it should be remembered that the animal must be perfectly quiet during the exposure, even if a drop-shutter is used, otherwise the negative will be sadly wanting in sharpness. By increasing the rapidity of the drop above one-fortieth of a second exposure this difficulty can in a measure be remedied. Some allowance must also be made for difference in the amount of actinism in the sun's rays between the early spring and winter months. While it is possible to make successful instantaneous pictures during the intensely bright days of spring and summer, it is very doubtful if the same good results could be secured during the winter season. Where ice and snow are present, I do not think this statement would apply with the same force, but it is seldom that a photographer is tempted to brave cold and exposure by conducting experiments of this kind in the field with the thermometer at zero. Having exposed a number of plates with an instantaneous drop, the next question to determine is how to develop them to the best advantage. Prepare the following solutions for alkaline development:

- 1.—Ammonia, Concentrated, . . . 1 ounce.
 Water, 1 “
 Ammonia, Bromide, 90 grains.
- 2.—Potassium, Bromide, 60 grains.
 Water, 1 ounce.

Take four ounces of water, and into it drop from eight to sixteen drops of No. 1, also four drops of No. 2, then put into the mixture a small pinch of dry pyrogallic acid; after stirring, the solution is ready for use. Do not wet the sensitive dry-plate, but take it from the holder and place it, film up, in a clean agate-ware dish, then flow over it the developing solution. The image will appear more quickly than where ferrous-oxalate is used, and the plate must be frequently

examined to determine when to stop further action. This can be ascertained by raising it from the dish and looking both through and on the back, or glass side. When the picture shows distinctly on the back, remove it from the solution, and wash well in water; fix in hyposulphite of soda, as before directed, then wash thoroughly in running water, afterwards place in a rack to dry. During development, should the picture appear too rapidly, or any disposition to fog show itself, quickly pour into the solution a dozen drops of No. 2; but if, on the contrary, the image is slow in making its appearance, add a few drops of No. 1 together with a small portion of pyrogallic acid. Be very careful not to cause staining in the film, as this is fatal to the negative.

After the plate is perfectly dry examine it by white light, during the day if possible. Should the picture appear too weak to make a good paper print or transparency, it must be strengthened. I have tried a great many chemicals, hoping to find something better than mercury for this purpose, but I must confess that none have given as good results as the following already-published formula:

Mercury, Bichloride,	½ ounce.
Ammonium, Chloride,	½ “
Water,	16 ounces.

When using the above formula, remember that this solution is a most dangerous poison when taken into the human system either by the mouth or by absorption through the skin. Therefore, handle it with great care, and always pour it back into the bottle when the work is finished.

I have thought it best not to mention in this paper any formula for strengthening the image by the aid of silver and pyrogallic acid. In the hands of those who understand alkaline development it can be used successfully, otherwise the operator will run great risk of covering his work with red stains or fog.

Pour enough of this solution, carefully filtered, into a dish, then immerse the negative, which must be perfectly dry, face up. Let it remain for a few seconds only, then wash well in water, and place in a dish of water containing a little ammonia; the color of the film will change at once to a

dark brown. Wash and dry. After a gelatine negative is perfectly dry varnishing is not required, as the film is very hard and difficult to scratch.

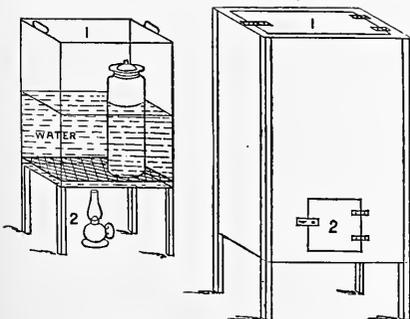
It will be noticed that attention is frequently called to the absolute necessity of washing the plate thoroughly at each stage in the process. The operator may rest assured that this is a matter of the greatest importance. Should mercury be applied to add strength to the picture, all the hyposulphite of soda must be eliminated from the film, or stains will appear that cannot be removed.

I have now gone over the subject of gelatine dry-plates and their development at quite as much length as it is proper in a paper of this kind. I am aware that I have not advanced any new suggestion, neither do I profess to be an authority in what is to me a new departure.

A WARMING-BOX FOR EMULSION.

OUR friend, Mr. S. L. Platt, of Elgin, Ill., sends us the following plans and description of a piece of apparatus which will go far to lighten the labors of those who make their own gelatine plates—a department of photographic manipulation not attended to as it deserves, we fear, by many otherwise earnest students of the art. Perhaps the possession of such an article would be the only requisite for starting many in this direction.

Mr. Platt says: "I also send you a sketch of my cooking-box, warming-box, etc.



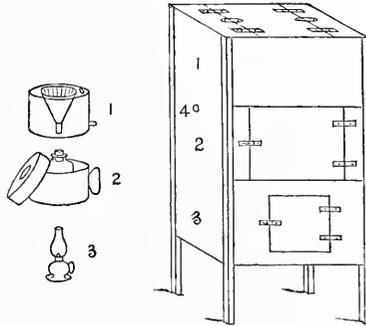
Cooking-Box for Emulsion.

1. Can for warm water. 2. Lamp for heating.

"The heat from lamp passes all around the inside can containing water. Place a wire

net in the bottom of can to raise the jar about one inch; the heat will then be even.

"I always prepare the emulsion the evening before using, and place to filter in my warming-box, made as design.



Warming-Box used in flowing Emulsion.

1. Warm-water shield for funnel containing filter.

"Pour the emulsion in, and allow it to drip in the bottle contained in warm-water can, No. 2. Place a small lamp in at No. 3, and keep it burning so that the heat is kept at 100° till after the flowing is ended. This I do with my flowing apparatus, which connects with the emulsion bottle by means of a small rubber hose passing in the heating-box through the hole in the side at No. 4."

PERTAINING TO THE



REPORT OF THE EXECUTIVE COMMITTEE.

To the Members of the

Photographers' Association of America.

GENTLEMEN: Knowing the increasing interest felt by all in the matters pertaining to the Photographers' Association of America, we take the earliest possible opportunity to let you know what has already

been accomplished in regard to our coming Convention.

The committee, consisting of J. A. Scholton, St. Louis; J. Landy, Cincinnati; A. E. Dumble, Rochester; together with John Cadwallader, Secretary, and Joshua Smith, the President, met by appointment at the Bates' House, Indianapolis, on the 24th day of January, to consult as to the steps required to carry out the will of the Association.

At this early day, it is impossible to give a bill of particulars, but enough has been done to warrant us in saying that the Indianapolis Convention bids fair to be a memorable one, and worthy of the National Association.

After a careful and thorough inspection, a lease was obtained of the Masonic Hall and the Armory Hall attached to it. The hall is a large room, amply lighted, and elegantly decorated, and your committee feel much satisfaction in having secured a place so admirably adapted to the purpose. The exhibits will be placed on screens, eight feet high by ten feet long, neatly made, which will be the property of the Association, thus obviating the continual expense of having new ones made from year to year. Apart from the usual business meeting it is desirable that at least one evening should be given up to a reunion, when the widely-scattered members of our profession, whose names are more familiar to each other than their faces, may have an opportunity for social converse. Feeling that our efforts should lie in the direction of the *greatest good to the greatest number*, Wednesday evening will be given up to a lecture on "Art in Photography," with special reference to lighting and posing, the use and misuse in arrangement of accessories. These lessons will be largely illustrated by the stereopticon from slides contributed by the most prominent men in the profession. This promises to be a most interesting and instructive evening, as every opportunity will be given for question and debate.

We have reason to expect that, for the first time, several of the best-known European photographers will be represented at an American convention, a fact in itself

that will give a special interest to our meeting. We are familiar with the names of Franz Luckhardt, Vienna; Franz Hupstanzen, Munich; Loescher & Petsch, Berlin; Burgminster, St. Petersburg; Robinson, of England, and many others, and occasionally see a photograph with their name on the card, but seldom, indeed, has an American photographer the happiness to see a whole exhibit from those ateliers across the water. One has a legitimate curiosity to see the masterpieces of those men whose fame is not bounded by a continent, to compare them with home productions, to detect by closer study the influence upon their art-thoughts of that old-world taste and culture so different to our own. Resolutions have already been despatched welcoming all who desire to exhibit; and spaces will be duly placed at their disposal.

The following resolution will speak for itself. It was unanimously passed in the belief that it would meet the approval of every member of the Society.

Resolved, That the Executive Committee desire to express their deep sense of obligation to the manufacturers and stock-dealers for their past favors to the Association, and especially for the prompt and generous manner in which they have contributed for the success and maintenance of the coming Convention; and, further, that Mr. Cadwallader, the Secretary, is requested to forward to them a copy of the same, and request its publication in the photographic papers of the day.

The following is a list of those who have already given us the evidences of their good-will:

Scovill Manufacturing Co., New York,	\$150 00
E. & H. T. Anthony & Co., New York,	150 00
A. M. Collins, Son & Co., Philadelphia,	100 00
Benjamin French & Co., Boston,	100 00
L. W. Seavey, New York,	50 00
Cramer & Norden, St. Louis,	100 00
Chicago D. P. & M. Co., Chicago,	50 00
Douglass, Thompson & Co., Chicago,	50 00
J. C. Somerville, St. Louis,	25 00
Mullett Brothers, Kansas City,	25 00
H. F. Gatchel, Cincinnati,	25 00
H. Leiber & Co., Indianapolis,	25 00
G. Gennert, New York,	25 00
H. A. Hyatt, St. Louis,	25 00
William J. Hazenstáb, St. Louis,	25 00

J. A. Anderson, Chicago,	\$25 00
T. H. McCollin, Philadelphia, . . .	20 00
Henderson George & Co., Indianapolis,	20 00
Charles Cooper & Co., New York, . .	50 00
J. Gillis, Rochester, N. Y.,	25 00

A very pleasant event was a reception by the photographers, manufacturers, and dealers of Indianapolis, at the Bates' House. All seemed enthusiastic, and are anxious to do all in their power to render the Convention a most successful one. Hotel accommodations have been satisfactorily arranged, prices varying from \$1.25 to \$2.00 per day.

The Committee would impress on every member the importance of promptly sending in his name and dues. Lists are now being made out for the printer, and every name is wanted.

Prepare now for your exhibit. Beautiful work is not made every day, and this dull season gives an opportunity to bring out something new.

Hoping soon to give further particulars, believe us, very truly, your Committee,

JOHN A. SCHOLTEN,
J. LANDY,
A. E. DUMBLE,
JOSHUA SMITH.

COMMITTEE ON PROGRESS OF PHOTOGRAPHY.

No committee on the progress of photography having been appointed at the last Convention, the President, Joshua Smith, has appointed the following gentlemen, who are requested to serve on that committee, and report at the next Convention: J. Traill Taylor, of New York, Chairman; Leon Van Loo, Cincinnati; Mr. Banks, Little Rock, Ark.; Henry Rocher, Chicago; J. F. Ryder, Cleveland.

JOHN CADWALLADER,
Secretary P. A. of A.

[We regret very much that the above reached us just too late for our last. It is very encouraging to see the number of names and subscriptions to this all-important object. Most gratifying is it, also, to see the names of the well-known gentlemen who figure as the committee, and who have given an earnest both of their present and future interest in the movement, by the energetic manner of making a start as detailed

above. That the forthcoming Convention at Indianapolis will be a great success, and that every one attending will not only carry away much that is practically of value, but also thoroughly enjoy himself, we feel very safe in saying. It were idle to enlarge upon the benefits connected with these Annual Conventions. But we may still ask such as are lukewarm about it, what means of learning are equal to those afforded by comparison? The world has long since agreed upon this in matters far enough removed from the domain of our beloved art. That is to say, in order to become aware of excellencies or defects *as they really are*, we have only to make comparisons. How pre-eminently true then this is in the case of an art like ours! How often we have felt pride in a pet picture, and thought, as we fondly regarded the dripping plate, that we had made our masterpiece. But when we have laid it side by side with the works of others, thus subjecting it to the stern *experimentum crucis*, have we always felt so well satisfied with ourselves? If there be any who can answer this affirmatively, we envy them. We need hardly say that the Convention has our heartiest wishes for its success.—ED.]

MEETING OF THE INDIANAPOLIS PHOTOGRAPHERS.

INDIANAPOLIS, IND., March 23d, 1882.

A called meeting of the photographers of this city was held at the stock-house of H. Lieber & Co., on Wednesday evening, March 22d, at which there was a large attendance of the local fraternity.

The meeting being called to order, on motion of Mr. Cadwallader, Mr. J. Perry Elliott was called to the chair by a unanimous vote, and Mr. Henderson George elected secretary.

Mr. L. D. Judkins was then requested to state the object of the meeting. He said that the fraternity of this city had been called together for the purpose of getting an expression from them as to our duty, and what action should be taken, and in what way we could best promote the interests of the Convention of the Photographers' Association of America, to be held in this city in August next.

The object of the meeting being stated, the President announced the meeting open for discussion, which was earnestly entered into by Messrs. D. R. Clark, W. H. Potter, J. Cadwallader, F. M. Lacy, and others, as to our duty, and how best to subserve the interests of the fraternity at large.

Mr. D. R. Clark offered the following preamble and resolution:

WHEREAS, The success of the coming Convention of the Photographers' Association of America, and the harmony, comfort, and enjoyment of all the participants is greatly desired by the fraternity of this city, therefore

Resolved, That the photographers of Indianapolis tender to the Executive Committee our services to aid in promoting the best interests of the Association.

On motion of Mr. Judkins, the preamble and resolution were unanimously adopted as expressive of the sense and object of the meeting.

Mr. W. H. Potter offered the following:

Resolved, That we hereby extend to the photographers of the United States, Canada, and the whole world, a hearty invitation to our city, and that we will do all in our power to make the stay of all who attend both pleasant and profitable.

On motion, adopted.

Moved that we adjourn to meet in this place on Wednesday evening, April 12th.

HENDERSON GEORGE.

Secretary.

TO THE MEMBERS OF THE P. A. OF A.

HERE we are in the midst of preparations for the next exhibition. It seems but yesterday since we were in New York. In regard to that Convention permit me to say that I enjoyed it and felt amply repaid for time and expense. I am not alone in this feeling. We are beginning to forget the heat and dust of travel, the hotel bills and the thousand annoyances that made life miserable, and remember only the good things. This is as it should be. I do not believe half the things that were said about it. For five days and nights the city, with its galleries and priceless art treasures, was in the hands of six hundred as ruthless photographers as ever drew slide. Every man of

them said with old Blucher as he walked through the streets of London, "My God! what a city to sack," and thereupon each one endeavored to carry off as much as he could with the least possible expense to himself.

I believe that what ideas in art or practical photography were not picked up during that week in August were not worth taking. I was much struck by a remark made by Mr. Ryder as we passed up Broadway, stopping occasionally to admire the marbles, bronzes, or other articles of virtu exposed in the shop-windows. "Dumble," he said, for a moment forgetting his own beautiful city, "an artist living in a large city surrounded as he is by so much to develop and cultivate his taste and imagination, other things being equal, must be pre-eminent in his profession."

The principle is true, but we must not forget seven flights of stairs, the enormous rents, the incessant pressure of the nose against the grindstone, the years of slavery before one's reputation is made, and the never-ceasing struggle to maintain it.

Great reputations do not come in a day, but after years of toil, and sweating of the brow, and it is due largely to this fact that the first men in all professions grow conservative and selfish. They live more or less aloof from their kind, and are loth to give gratis one leaf of the chaplet that has cost them so much. In photography this feeling is augmented by a narrow belief that there is amongst the rank and file a lack of ambition, a wanting of those higher qualities necessary to lift a man above the status of him who breaks stones on the road or drives the street-car. While this criticism is too sweeping, we cannot deny that it is, in part, true, and to remedy this great evil is the first and highest aim of our Photographers' Association.

If an honorable pride and love of their profession is to be a universal virtue among photographers, if photography itself ever takes its proper stand amongst the professions, it must be done only through an association like our own. The photographers, from California to Maine, are beginning to find this out. *Low prices* is the brick that's struck them, and when they turn to see

who threw it they see a photographic tramp, a sample of an army of tramps, any one of whom would disgrace a tow-path, or put an honest drain-digger to shame. Our President has a score of letters from men in high position requesting and advising that the question of *prices* be discussed at Indianapolis, and an effort made to stay the sin that is driving some of our noblest men out of a profession that threatens to be no longer an honorable one. Gentlemen, the remedy is in your own hands.

President Smith, who is working night and day, writes that, from the number of persons desiring space, he is afraid no ordinary or extraordinary hall will hold them, and he has taken the wise precaution to secure the refusal of further room. This is what we want; we can stand a little crowding for once. Many applications have to be ignored, as the applicants have neglected to send in their dues, or to be explicit as to name and address. Let us make the work as light as possible for the Secretary by sending names, and paying up. Let the President and officers for this year, as well as of years past, feel that their labors have not been thrown away.

Begin now to prepare your specimens. The finest photographer in the country only *occasionally* makes a portrait that he is willing to exhibit as his choicest work, and an 8 x 10 ft. case will easily hold his gems of four months. The humblest photographer is the one who has the most to learn, and the Committee has determined that his special interests will be looked after in August.

Yours,

A. E. DUMBLE.

ROCHESTER, March, 1882.

MR. FRANCIS BEDFORD prefers to extract the silver from old hyposulphite baths by means of liver of sulphur, while Messrs. Valentine & Sons precipitate the precious metal with zinc plates. In a laboratory experiment, we found the former method to be the most exhaustive, the proportions recovered by sulphur and zinc being as five to four. On the other hand, in favor of zinc, there is the circumstance that the smell is not so objectionable, while the silver is

not recovered in the form of sulphide, but in a metallic condition. The experiences of these gentlemen should, in any case, cause all photographers to exhaust their waste hyposulphite solutions in one way or the other.—*Photographic News*.

ANSWERS TO QUESTIONS TO THE CRAFT.

1. What has been your experience with emulsion plates? Are you having success with them, and what advantages do you find in their use?
2. What have been your failures with them, and what the causes thereof, and what the cure?
3. Do you think they will ever enable you to discard the bath and collodion?
4. Do they place you in the way of producing more artistic work?
5. How do your patrons like the resulting pictures?
6. Are your patrons more appreciative than formerly?
7. What are the prospects for business during 1882?
8. Any further hints for the good of our co-workers, will you kindly add them?

DEAR SIR: In reply to your circular letter in the December number of the *Philadelphia Photographer*, I will briefly give my experience with emulsion plates.

1. My experience has been rather limited, having used them only since December last; however, it has been attended with a fair degree of success. I find many advantages in their use, more particularly in the case of babies or nervous subjects. I have not failed on one since I commenced using them. They are always ready. Development can be deferred any length of time. I employ the ferrous-oxalate developer, which I consider the easiest to manage and gives good results.

2. My failures have been caused principally by over-exposure and under-development. I at first used the dipping-bath for developing, but found my negatives (with few exceptions) covered, more or less, with transparent spots; I substituted trays for the bath, and the difficulty disappeared. I make my own trays by coating the boxes which previously held the plates with bees-wax and resin. I seldom strengthen.

3. I have discarded bath and collodion altogether, except for tin work.

4. Yes; on account of the short exposures, it admits of more artistic posing without the aid of head-rests.

5. My patrons don't appear to know the difference, except the difference in the exposure; with this change they are highly delighted.

6. I think they are; for I am now able to produce finer work.

7. Business prospects for 1882 are excellent; my trade is nearly double that of last year for the corresponding months.

In conclusion, I will simply say that if any one will give the *dry-plate* a fair and honest trial as I did, the result will be to discard collodion and bath.

While attending the New York Convention, last August, I thought it a terribly "dry" affair, as it was nearly all dry-plate from first to last; however, I am very grateful, especially to the manufacturers of dry-plates, for the valuable information which was so freely given to us. If I mistake not, a large proportion of the attendants at the next Convention will be dry-plate workers.

FRANK H. NIX,
Reed City, Mich.

In answer to your eight questions permit me to say:

1. I believe I had as much experience with my first dozen emulsion plates as any one had. I am having good success with them now, and find them a new power.

2. Lack of intensity; I have tried every intensifier that has been published, but so far I have not been able to intensify them as I would like to.

3. I do; I would never make another collodion negative were it not for the above failure.

4. Certainly they do.

5. They like them.

6. They appreciate the short exposure, of course.

7. They couldn't be better.

8. I have a good trade, and I get \$3.00 for every dozen cards I make; \$6.00 for cabinets, and larger work in proportion. I claim, and I believe every sensible man will bear me out in the assertion, that it is just

as easy to get a fair price for work as it is to do it for about what the stock costs.

C. S. PECK,
Zumbrota, Minn.

I am a constant subscriber to your valuable journal, and appreciate it very highly. I am also a member of the Photographers' Association of America, and shall be at the next Convention in Indianapolis, and bring as many of my brother photographers with me as I possibly can from this side. I am a photographer of thirty-three years, and the last year an exclusive worker of dry-plates. I am now so attached to the dry-plate that I would leave the profession altogether were I forced to go again to the old process. My business has doubled itself since I took up the dry process, and I consider that, owing to the great advantage I have with the dry-plate in making sittings so successfully on dull days and late in the evening, I have, during the last three months, realized as much as has paid for my year's dry-plates over and above what I could have done by the wet process. They are the greatest boon to the photographer; all my customers are delighted with the work done by them. I am very much pleased to see so many going into their use, and the time will soon come when the agitation for good prices will be successful.

I consider the dry-plate the great stepping-stone. I added nearly three thousand dollars more to my business last year.

I use a great many of Eastman's plates, and like them very much. I also use some of Swan's, and stick to those brands altogether. To insure success it is better to stick as much to one maker's as possible.

THOMAS CHARLES,
St. Catharines, Ont.

A NEW DRY-PLATE LANTERN.

A FEW days ago we had the opportunity of inspecting a new and very useful lantern designed by Mr. Carbutt for the special convenience of gelatine workers. It may be described as follows: In size it is about nine inches square by fourteen high, standing on low feet, two sides of which can open on hinges, like a door; the front side being composed of a large sheet of ruby glass.

The side opposite to the ruby glass is simply a sliding door opening to admit the lamp—a large-sized kerosene burner. The right-hand side, when opened, discloses a sheet of opal glass fastened in, so that it may be used to examine the plate by at any stage of development or fixing, by white light. The left-hand side opens free, in order to allow the direct light from the lamp to act on a printing-frame containing a negative and sensitive plate for transparency making. An adjustable metallic screen or hood projects over the top of the ruby glass, so that as the operator stands his eyes are entirely protected from glare, and the light is thrown just where it ought to be, viz., in front of and below the lantern. The lamp is supported on a revolving bottom capable of being rotated by a button on the under side, so that the flame of the lamp can be turned in any direction. A reflector is also adapted, and Mr. Carbutt informs us that he prefers to make contact transparencies broadside to the flame, instead of edgewise as is generally done, for the reflector makes the rays parallel enough for all practical purposes. By a simple contrivance the revolving bottom can be removed, so that a gas-burner can be introduced, if desired, instead of oil, and a folding wooden handle by which the lantern may be picked up and moved into any required position; and hooks at the back, to hang it up by on a wall or partition, complete the list of conveniences in this most useful piece of apparatus. Patent applied for. See advertisement in this issue of the *Philadelphia Photographer*.

WE are pleased to see that the *Revue Photographique* of Paris prints an extract from the December minutes of the Photographic Society of Philadelphia, giving Mr. Carbutt's formulæ and instructions in full for making lantern positives on gelatine plates. Our well-known argand burners are translated *bruleurs d'argand*, followed by an interrogation mark; not strange, when we remember how much less common they are in France than here. With every respect for such high authority as Mr. Carbutt, we still prefer to expose to the flame of a fish-tail burner, with the plane of the flame at right angles to that of the plate. This

affords another chance of a sharp result if the negative and the plate should happen not to be in absolute contact. The actinic power of a good lava-tip burner is greater than that of an argand, as may be easily proved by experiment.

PRICES.

BY R. E. WOOD.

IN all classes of business there always has been, and probably always must be, a clashing of interests between different individuals carrying it on so as to cause the profits to be reduced. Photography is no exception to the general rule; it is a calling any ordinary person may engage in, after a few months' study and practice, and hence, like all other employments, its followers will have all grades of mental calibre and business qualifications. A necessary result of such conditions will be all sorts of pictures, from poor to good, with prices to correspond. From these facts I argue it will be just as impossible to establish any system of regulated prices, as it is to cause all photographers to acquire the same proficiency and business vim. My belief is we must work just the same as merchants, doctors, lawyers, blacksmiths, etc., do; we have only the same opposition, brought out by similar conditions of the human mind. It will not do to settle back on the dignity of our calling, and expect large returns from little work. We may feel it ought so to be, but the majority of our customers see us in the same light they see others. For instance, the smith who hammers at the anvil, in order to reach great success, builds up a good reputation by careful study and thorough, complete workmanship. He must know the composition of his piece of steel, the kind of fuel to furnish the heat, just how much heat to use, the composition of the cooling medium; oil, wax, and tallow, in certain proportions, for certain pieces of metal, to give a certain hardness; then again an exact amount of heat to reduce this hardness to the exact point that gives the proper temper for a spring, a razor, or any other steel instrument. To my mind, the man who can do these things with a reasonable degree of perfection is worthy of all praise, and no

persons, whatever their calling may be, are to be more esteemed, until they show results that indicate more extended study; in other words, there is no occupation that will, of itself, promote the honor of the individual; but, on the other hand, the individual may promote the honor and importance of his occupation, and thus acquire great honors for himself. Then it is he will be enabled to establish prices, and not till then. If there are several in the same city of similar repute, one of whom should commence to cut prices, the others should immediately do the same, only a good deal worse; let prices go entirely for the time being; work for nothing if need be, to keep the people from getting the idea the first cutter is the cheapest, and to teach him it will not pay to cut. I admit it is a serious remedy, but the disease is also serious. The steamboat men of California, in an early day, on the Sacramento River, used to go so far as to watch the coming travellers, and give them two or four "bits" to go aboard their boat. Such business never lasts long; the public enjoy it, and kindly accept a reasonable price when the fight is over. General business opposition is not carried so far as this, but far enough; so each person understands he must keep somewhere near his neighbors, or no one will receive any profits. Our calling should be no exception to the general rule. Money is what most of us are working for, and it takes genuine business qualifications to get it. If the reader is not aware what these are, study the ways of the mercantile community. The successful merchant studies human nature, always keeps a weather eye on his business brothers, and, if need be, is ready to lose money at any time to save his reputation.

PROCEEDINGS OF SOCIETIES.

ASSOCIATION OF OPERATIVE PHOTOGRAPHERS OF NEW YORK.—A stated meeting was held February 1st, 1882, President Coonley in the chair.

Received from the Scovill Manufacturing Company copies of their reprints of the *Almanac of the British Journal of Photography*, and the *Year Book of the London Photographic News*; also the usual comple-

ments of periodicals; for all of which a vote of thanks was given.

The Secretary read a paper on "The Theory of Toning." After reviewing the experiments made with chloride of silver, and the different theories of gold-toning, as laid down by acknowledged authorities, he pronounced his own ideas, the consequence of long observations and experiments. He said the result of printing is metallic silver, and he even doubts the *existence* of a subchloride. In toning, the alkali makes the gold solution active, *i. e.*, converts the terchloride into oxide, from which metallic gold easily precipitates upon the silver. A perfect substitution of gold he denies. Silver is always present in the finished print, which he tried to prove with the results of some of his experiments.

Mr. Coonley and Mr. Powers expressed their views in a similar way. A regular discussion on the subject was postponed till next meeting.

Mr. Hallenbeck resumed the discussion on "Toning of Prints," in which the Messrs. Atwood, Kane, Powers, and others, took part. Most everybody described his *modus operandi*, but nothing new was elicited.

CHARLES EHRMANN,
Secretary.

BOSTON PHOTOGRAPHIC ASSOCIATION.—The annual meeting of the Association was held at the studio of Mr. J. W. Black, on Wednesday evening, February 1st, 1882.

The following officers were elected for the ensuing year:

President.—D. T. Burrall.

Vice-President.—A. A. Glines.

Secretary.—H. E. Strout.

Executive Committee.—Messrs. G. H. Hastings, T. R. Burnham, and F. C. Low.

It was voted that the next meeting should be held at Mr. T. R. Burnham's studio.

Mr. J. F. Edgeworth, of Chicago, representative of the Cramer & Norden Dry-Plate Company, was called upon and showed some specimens made on their dry-plates, and explained the method of working them. On motion, adjourned.

E. J. PARTRIDGE,
Secretary *pro tem*.

PHOTOGRAPHIC SOCIETY OF PHILADEL-

PHIA.—Minutes of the regular meeting held on Wednesday evening, March 1st, 1882, the President, Mr. Joseph W. Bates, in the chair.

The minutes of last meeting were read and approved.

The Secretary stated that the Society had been awarded a "Medal of Excellence" for their exhibit at the American Institute Fair, at New York, and that the same had been received, and was upon the table.

Mr. Fox reported that the public lantern exhibition would take place on Tuesday, March 7th, at Association Hall.

The President announced the death of Dr. George B. Dixon, at Palatka, Florida.

Messrs. Henry T. Coates, William E. Dobbins, and William H. Walmsley were unanimously elected members of the Society.

Mr. Browne read an interesting paper on gelatine plates, which, he said, in view of the great impetus given to amateur photography by the introduction of these plates, was more intended for beginners than those more proficient. (This paper is published in full on page 107.)

In reply to a query of Mr. Walmsley relative to the treatment of plates known to have been over-exposed, Mr. Carbutt stated that he preferred to use a fresh developer containing an excess of bromide, rather than an old solution. He further said that the control of the development, in the ferrous-oxalate solution, was greater than many supposed, even approaching the nicety of balance of the wet collodion process.

In a discussion relative to the use of red light in working gelatine plates, it was argued that, for the slower grades, orange light was sufficiently non-actinic, and preferable as being less injurious to the eyes.

Mr. Wood stated that in his hands the very rapid plates had fogged by exposure to red light, but by covering the ruby glass with yellow tissue-paper he overcame the trouble. This, he said, would seem to prove that a combination of the red and yellow was the true non-actinic color.

Mr. Sartain exhibited two instantaneous pictures, by Marion & Co., of London, of two acrobats performing on a trapeze. In one of these the exposure was made while

the performer was in the act of dropping from a bar to the ground. The sharpness of the figure, in mid-air, was remarkable, and denoted an extremely rapid exposure.

Mr. Carbutt exhibited an improved form of dark-room lantern, especially designed for gelatine work. The front was fitted with dark-ruby glass; on one side a small door enabled the lamp to be lighted and properly adjusted; on the other side, a second door covered an opening fitted with ground-glass. This was intended to give an opportunity to view the finished negative by white light under the most favorable conditions. The chief feature of the lantern, however, was the movable hood which partially shielded the ruby glass, and in such a manner as to prevent the light from shining in the eyes of the operator. Mr. Carbutt's thorough knowledge of the requirements in working gelatine, has enabled him to devise a lantern which is admirable for dark-room purposes.

On motion, adjourned.

C. R. PANCOAST,

Secretary.

THROW AWAY YOUR RUBY GLASS.

[WE have had doubts for a long time as to the necessity or advisableness of the dark ruby-colored glass and paper so much used now for dark-rooms where gelatine plates are worked. That it is both difficult and disagreeable to work with such a limited quantity and bad quality of light, no one will deny; and we all probably have greeted the morning sun many times with blinking, watery eyes—the result of the strain occasioned by the red light of the previous evening's work. No matter how well shielded the eye itself may be from the direct glare of the lamp, still the reflection from the white film on plate after plate, makes itself most painfully felt.

With these facts before us, we feel that the following article by our kind friend will be very valuable to all who are desirous of not injuring that special sense which is of all, perhaps, the most indispensable to a happy life.

The gelatino-bromide process seems to us

to be going through much the same stage as the collodio-bromide did shortly after its introduction to the scientific world. Many of our readers will, no doubt, remember the time when the battle was between the excess of silver and the excess of bromide in emulsions, and how an emulsion that had been kept until fogging was imminent, could be made to work much quicker than wet collodion. At that time the journals and books all insisted on precautions as regarded the dark-room light that were unheard of before; and we well remember our first introduction to a real *dark-room*, in London, where this hyper-sensitive emulsion was being worked; and we remember, too, that in spite of every safeguard, the plates had just the veiled appearance about them which would have led a good wet operator to add a liberal dose of acid to his bath. We consequently were not so sure that a room badly lighted was necessary for working the emulsion of that time, and although we cheerfully recognize the superior quality of most of the gelatine work now made to the former, we are far from believing in the necessity for the dens of dark-rooms lighted like those of the present day.

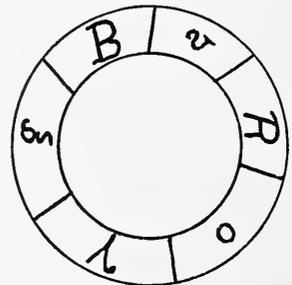
We have referred especially to the *developing-room* in these remarks; the room in which the emulsion is prepared, however, may demand a diminished amount of the orange light; not because the conditions of sensitiveness are altered or increased, but simply because the emulsion is exposed to whatever light there may be present for a much longer time.—ED.]

A consideration of the theory of colors and their relation to actinism, long ago made me question the necessity of any change in the color of dark-room lights for the better protection of extra sensitive dry-plates; but in our establishment we followed the directions of the plate manufacturers, and, at first, adopted the ruby light. The obscurity of our work-room, however, and still more, the painful effect of the red light on our eyes, induced me to test by actual experiments the value of the new light in comparison with the old. The result showed that our fathers knew what they were about when they settled on the orange

tint as the true non-actinic color. We found while it admitted three times the working light it had less effect on the plates, in extreme tests, than the ruby.

As some of your readers may not have thought much about the method of determining complementary or opposite colors, a word on this subject may suggest other applications of theory to our art.

Notwithstanding the old writers, there are but three primary colors—red, yellow, and blue. We know that these and these only are primary because no admixture of any other colors will produce them, which is not the case with the rest; for orange is only a mixture of red and yellow, green is only the shading of yellow into blue, and purple is only blue blending into red. Now, as the last primary color in the spectrum is seen to join with the first in the production of the intermediate shade of purple, or violet, as it is usually called, we may with propriety curl the spectrum into a circle, in order to represent to the eye the inter-relation of the triad of primary colors. In the annexed diagram let the capital letters, R, Y, B, represent the primary colors, and the small letters, o, g, v, the compound colors. Now



it is natural to infer that if we establish a certain quality as belonging to a certain color, when we seek for the direct opposite of this quality we should look for it not in any near color but in the opposite side of the spectrum thus returning into itself. It would take too much space to illustrate this at length, but a very pleasing method of testing the complementary colors is to fill the eye for some minutes with some strongly marked colored light and then retire into the dark and observe the tint of the image presented to the optic nerves. If we have been looking at a pure red light we shall in

the dark see a green image; if at yellow, we shall see violet, etc.; these colors, respectively, being on opposite sides of the spectrum as drawn in our diagram.

Pure blue, or, possibly, blue slightly tending to violet, is known to embrace most of the chemical rays. Hence, to find what rays will operate the least on our plates, we look to the opposite or complementary color, *orange*, and are not disappointed. But, whatever may be thought of the theory, the fact is, briefly, we are now developing our dry-plates in front of nine 8 x 10 orange lights, set back about eight feet from a good-sized outside window, and admitting light enough for one to read the finest newspaper type on a dark day. It must be understood that the darker shade of photographers' yellow glass is to be selected, not the canary, nor yet the very brown. Strictly speaking, very little of this glass is orange—as it should be—but it is near enough to that color.

The pleasure of working in an agreeable light, and plenty of it, will, we are sure, be appreciated by all our readers, and we urge them, after they have satisfied themselves, cautiously, that we are right, to save their eyes.

WILLIAM CURTIS TAYLOR.
Philadelphia.

FRENCH CORRESPONDENCE.

Improvements made by Captain Biny in the Transformation of Negatives into Positives—Extension given in France to the Manufacture of Appliances Suitable for Industrial Reproductions—Lectures on Industrial Reproductions Published by Mr. Leon Vidal—Physiological Action of Light: Experiments of Mr. Dumont-Pallier—Photographic Exhibition of the Central Union of Decorative Arts.

WE have upon a previous occasion spoken about the method for converting negatives into positives as practised by Captain Biny in the Topographical Department of the Minister of War. This skilful investigator has just made a notable improvement in the method of obtaining with gelatine plates transformed prints of suitable intensity. He arrives at this result by using, for the

developing of the negative, then for the developing of the positive, oxalate of iron obtained as follows: Dissolve, with the aid of heat, to saturation, neutral oxalate of potash in distilled water. The liquid is then poured into a glass bottle, in which it is allowed to cool, no attention being paid to the crystals which are formed. Make, in the same manner, a hot, saturated solution of lactate of iron, and keep the two liquids separately until wanted. To develop a plate, mix about equal volumes of the oxalate and lactate, thus dissolved, so as to almost obtain a precipitate of ferrous-oxalate. The whole is filtered, and we have an excellent developer, both before and after the transformation of the gelatine clichés. This is the mode of proceeding: The negative, when developed in the mixture mentioned above, is placed exposed to daylight, the gelatine uppermost, in a gutta-percha dish containing a sufficient quantity of the developer to cover the negative. From time to time, uncover the negative by giving a slight incline to the dish, and allow the light to act until those portions of the bromized gelatine which had remained white become a dark lilac, whilst they are still wet with the developer, which is agitated on their surface. The plate should not be raised, as the light acting underneath would produce a fog.

When the lilac color is obtained in the white portions, the plate is taken to the dark-room, and, if the exposure to the light has been sufficient, a faint positive image will be seen on the back of the plate. The cliché is abundantly washed to free it from the developer, and plunged into the following bath:

Rain Water,	100 parts.
Water Saturated with Bichromate of Potash,	45 "
Pure Nitric Acid,	5 "

It is useless to add bromide to this liquid, as was first advised. When the negative image has *completely disappeared* in this bath, the plate is washed for fully fifteen minutes under the tap, in order to free it from the bichromate retained by the gelatine. To make sure that this washing is thorough, allow a faint ray of white light

to penetrate, and see if the negative is no longer yellow. If the result is obtained, plunge again the plate into the developer which has been used for the negative, and the positive image gradually shows itself, at first rather slowly, and then rather rapidly. It is now carefully watched so as to stop the operation at the proper time. No strengthener is needed.

It is useless to insist upon the advantages offered by a process like this for the direct transformation of a negative into a positive, and there are a number of photographic operations in which it is necessary to have recourse to a positive cliché instead of using a negative. It is very certain that no impression of a positive from a negative, either in the camera or by contact, could give a positive as complete as one obtained by a process of immediate transformation by the substitution in the same sensitive film of a positive for a negative. No other kind of contact could possibly be more close. For many industrial applications of photography it is important to possess a process of conversion like that made known by Captain Biny.

The methods of industrial reproductions, either with the aid of light or otherwise, are more in favor now in France than ever before, and extensive efforts are being made in this direction. Mr. Otto Lelm has just built large works for the manufacture of the auto-copyist, the chromograph, the tripograph, etc. The house of Dagron & Co., on the other hand, have organized a large establishment for the manufacture of chromographic and ferro-prussiate paper—this last being much more perfect than any heretofore produced. The house of Joltrain also manufactures on a vast scale, not only highly sensitive ferro-prussiate paper, but also cyano-ferro paper giving similar impressions—positives from positives.

Our large industrial establishments have daily recourse to these divers processes by means of which they obtain much more cheaply the multiplication of their original sketches and designs.

In reality nothing is more interesting than the working of these processes, rather long to introduce, but now used a little everywhere; were they better known they

would meet with still more favor. Our course of lectures at the National School of Decorative Arts has for its special object to better make known these divers methods of reproduction, but we are not able yet, on account of the inadaptability of the building, to give to these lectures all the practical development which they need. This will come later.

In this connection I may be allowed to announce that a summary of this course of lectures, in a volume of over five hundred pages, with numerous specimens of the divers processes, has just been published by Mr. Delagrave, Paris, No. 15 Rue Soufflot. We have been obliged to confine ourselves to what may be styled an elementary edition, so as to bring it within the reach of all, but the book contains enough to convey a pretty complete impression of the modes of reproduction at our command at the present time. We send by this same mail one of these volumes to the office of the *Philadelphia Photographer*, in order that it may be shown to those persons whom the subjects treated therein might interest. This is all we can say of a book of which we are the author. It is not for us to judge it, even to say all the evil that we think of it. What we must look at is the task accomplished, the idea carried out in view of popularizing the knowledge of, and then the practice of, reproduction.

We are studying at the present time the chemical, physical, and mechanical action of light, but there is another kind of action which is very curious. It is that which may be styled physiological, and from which a doctor of medicine, of Paris, Mr. Dumont-Pallier, has just obtained most singular effects, truly unheard of phenomena. From the experiments made by this doctor, it results that a subject being hypnotized, either naturally or in a trance, or artificially by looking at a brilliant object, it is possible by means of reflected light to cause him to pass from the hypnotic sleep to a lethargic and a cataleptic condition, and reciprocally. It is possible by casting the light upon each of the four members to obtain either absolute immobility or the convulsive movement. It is possible to make each motion of a member independent of the others. The fore-

arm inert, the wrist rigid and insensible, the hands quiver at the slightest contact; then, suddenly, by a simple luminous ray projected on the umbilical region, the four rigid cadaveric members are agitated, mechanically, as it were, like a jumping-Jack when the string is pulled.

If we make mention of these extraordinary facts, which do not belong to the domain of photography, it is because any action whatever of light is good to study by those who are concerned in its applications. We do not yet know what the future has in store for us; and it might well happen that, at some future day, it would be possible to establish between the chemical and physiological actions of light such a correlation as to afford a useful application to the arts. Nothing should be neglected in the matter of scientific observation (and we repeat it here), for us who have so much to do with light, we feel bound to know all it is capable of producing, even if we should not see at once what connection exists between the facts mentioned above, and those produced by light in the domain of its applications to photography. First of all, we are photographers, but the vast and universal field of philosophy is not closed to us.

We have sent to the *Philadelphia Photographer* a circular relative to the coming Photographic Exhibition at the Palace of Industry, organized under the auspices of the Central Union of Decorative Arts. As we have already said, this exhibition is to have a character chiefly artistic. The United States have a number of renowned photographers — Gutekunst, Sarony, Mora, Kurtz, Anderson, Gilbert & Bacon, Scholten, Landy, Pearsall, Notman, and many others, too numerous to mention; we hope that they will send us some of their choice work. It is not necessary that there should be many, but the prints should possess a purely artistic character. The committee entrusted especially with the organization of this exhibition, and of which we have the honor to be secretary, is making every effort to render it worthy of the end in view. It is time, now that the processes have been so much improved, that they should be forgotten for a time in favor of the thing produced, without regard to the

means employed. This departure is new in France, where, generally, photographic exhibitions were especially exhibitions of processes rather than of works of art. It is now the reverse; rewards will be given to the most artistic work. Invitations have been extended to the principal photographers of every country, and we hope to receive from each of them some choice specimens of artistic work.

LEON VIDAL.

PARIS, March 1st, 1882.

LEISURE TIME.

LEISURE is time for doing something useful; this leisure the diligent man will obtain, but the lazy man, never; for a life of leisure, and a life of laziness, are two things.—DR. FRANKLIN.

ARE we not inclined to become too easy-going in these days of ready-made plates requiring almost routine treatment? Is not everything calculated to make us like perfected machines, working rather with our hands than our wits? Let us imagine ourselves in some position where we were really thrown on our own resources; travelling, for instance, through some part of the world affording no means whatever for repair to any accident happening to our impedimenta. Should we not rejoice in the possession of that practical knowledge only to be gained by handling things ourselves, and feel that the time devoted to experiment and study had not been lost, but rather that it had been well spent, and that we were equal to any emergency? While, even if we were perfect in any one department, it would not here make up for ignorance of others. When we hear the stories told us by some who have ventured out on long expeditions, we have felt that their knowledge before starting was of so elementary a character that it was wonderful they brought back anything at all.

Again, what should we do if placed in charge of a small portrait business in a remote town, not approached as yet by the iron horse; our society limited to a few, of whom still fewer could share our love for our art. Perhaps irregular mails, and more or less difficulty and risk in obtaining necessary supplies. After bestowing every attention on the gallery and its requisites, and tak-

ing care to have it known that our aim was to excel, we should devote a portion of our time—not necessarily a large portion, nor even a portion painfully and pedantically regulated—but still some, to earnest experiment in those newly-broken paths which cannot fail to suggest themselves to the intelligent reader. What would we gain by this? Not dollars and cents *now*, but that which, after all, these do but represent, namely, knowledge and experience. In the case of one who has never tried to make a batch of collodion or gelatine emulsion, for instance, what experience can be gained, what chemistry learned—good, practical chemistry, too—and what an intimate knowledge of the whole behavior of a dry-plate, by resolute trial, repeated time and again, with small batches of the costly material. How much is to be learned from the very failures that are inevitably made in such a course of study, by trying patiently to discover the causes, and comparing parallel cases in other processes! We are sure that the pleasures derived from this manner of employing our leisure time would hold their own with those proceeding from quoit-pitching, and the stories told in the select circle of those whose headquarters is the bar-room stove. Should we excuse ourselves, and say that we had enough to do to furnish that which was needful for the more pressing emergencies of the business, and that there was risk and expense enough in that? No; a very small corner of some one of the packing-boxes sent by our stock-dealers could be made to hold enough, and more than enough, to start us nicely in our experimenting, and at no great cost.

Again, how if we were settled in a city with greater facilities for keeping ourselves posted in the advances made by the art, and for procuring anything we might require at short notice and of undoubted good quality? With plenty to do in the way of regular business, but having still intervals in dull weather and at varying seasons when we felt at a loss for something to occupy ourselves with. Here, again, we might do as before, only on a somewhat larger scale, and supplement these trials with a well-regulated course of reading in the direction of composition, posing, lighting, and the

general principles of art; not confining ourselves to the practical articles in the journals and the treatises specially advertised for the purpose, but making our course a comprehensive and liberal one, taking, for example, Ruskin's works, particularly the earlier ones, and others of like character, besides well-written books of travel and even novels of the higher class; in a word, anything to stimulate the imagination and call upon the ideal. And what profit would there be here? Again we say, not dollars and cents in the immediate present, perhaps, but the possession of that kind of higher knowledge which helps vastly in our work, and paves the way to advancement in the future. Then, too, we should not be surprised to find ourselves slipping by degrees into a keener appreciation of our matchless English literature, nor would we fix the limits to the improvement of our taste and the consequent pleasure experienced after a few months so spent. The mere possession of a mental habit which constantly strives after the refined and the beautiful, is an exceeding great reward.

But, on the other hand, how easily we might form the habit of either carrying a fondness for scientific research too far, or worse yet, allow ourselves to become enervated by an injudicious course of reading, particularly if it degenerated into mere utopian speculations, and so unfitted us by degrees for the more active demands of our calling. We can remember more than one case where this has happened, and have met with men who had sadly misused time; allowing their zeal in either of the two directions so to run away with that time properly belonging to more important routine duties, that their businesses shrank away from them in a pitiful manner.

Far be it from us to wish to dictate to any man just how he is to spend his time, either in respect to business or leisure; we would rather have these remarks regarded as a series of reflections as to what might be done under special contingencies. Nor would we have anything that we have said construed into an attack upon those who occupy themselves with our art simply for the pleasure afforded by the ease with which pictures (or something resembling them) may be made. We are well aware that

there are many who, while totally ignorant of the great principles serving as the foundation of photography, still derive great pleasure and benefit from its pursuit, so that we cannot but feel grateful that such a thing exists if only for this reason. One of the recent publications of the Scovill Manufacturing Company speaks feelingly of the rest and recreation afforded to many an over-occupied man by a saunter through the green fields and by the shady brook-side with his camera. Surely our previous remarks on the advisableness of earnest study were not intended to apply to such as these, but rather to those whose plain duty to their calling and to themselves demands more than the rule-of-thumb knowledge so unhappily common at the present time; and yet no one can tell where the interest awakened in one taking up our art merely "for fun" will stop. Such a man frequently becomes a skilled workman, and in time can point with satisfaction to his *fructus otii*, having become meanwhile an excellent judge of photographic results, and it is hardly necessary to say having played his part in the furtherance of general photographic business.

WE are compelled to fill the place of the German correspondence this month with other articles. Should the present number reach some of our subscribers late, they will please ascribe it to our having waited past our usual time of going to press, hoping for the arrival of the letter.

THE IMAGINARY BRIGAND.

ORDERED by my medical adviser to pass the winter of 1875-76 in Italy, after a severe illness, and after spending a few weeks in Rome and Naples, I at last chose the quiet little town of Castellamare, situated on the Bay of Naples, as headquarters, and this, for various reasons, the principal one being economy, and, next, its proximity to Pompeii and the surrounding beauties of Sorrento, Salerno, and Amalfi. The economical reason will be easily understood when I say that our smart little donkey carriage and driver used to take us to Pompeii in the morning, remain there all day, and drive us home in the evening, all for

the exorbitant sum of two shillings. Lunch generally formed part of our outfit for the day, and we had opportunities for varying our *extempore restaurants*, one day making use of the late M. Diomed's dining-room, another, the stairs of the temple of Isis, but more frequently utilizing the huge stepping-stones in the street as a table, and what the Americans call "sidewalks" in lieu of chairs.

Travellers seeing Pompeii are put, in company with a guide, who never leaves them, in at one gate, marched through certain streets, and popped out at another. Thus they generally see as much of the old city as one would of London if marched through from Victoria to London Bridge. Having a special permit to photograph the exhumed city, we were allowed to wander alone where we liked, and so saw many curious things and places that the regular tourist never sees. As will be noticed, I say "we," which means that I was not alone, but accompanied by a companion of some fifteen years' acquaintance, viz., my wife, without whose presence this article would have had no *raison d'être*.

Castellamare—a favorite resort of the Neapolitans in summer—stands at the base of Mount Saint Angelo, part of a chain of mountains forming a promontory which composes a portion of the renowned Bay of Naples, and ends with the celebrated Isle of Capri, with its justly famed Blue Grotto. The summit of these mountains was, some short time ago, rather an unsafe place for travellers, owing to the presence of a band of brigands, the chief of whom has, since the time I write of, been captured near Pœstum. Situated on a spur of these mountains, some little distance from Castellamare, is the ancient castle of Charles D'Anjou, from which the town takes its modern name, replacing that used in the time of Pliny, during which Pompeii was destroyed (viz., Stabia).

From the rising ground above the castle, most charming "bits" are to be found of the town lying beneath, bathed by the sunlit waters of the Bay of Naples, Vesuvius, with its ever-smoking cone, rising on one side, and Naples just discernible in the hazy distance on the other. Wishing to add to

this charming prospect a foreground of the old castle, we had one morning wandered along a rugged path to some distance up the mountain side, and at last pitched on a suitable point of view. After manœuvring and changing the position of the camera at least a dozen times to obtain a suitable immediate foreground, I buried my head, in time-honored fashion, under the velvet with a view to focussing or focussing a view. Everything was perfectly still and quiet, and no signs of life in our vicinity, the only sounds audible being the noise of the ship-builders driving their rivets into the huge hull of the Italian war steamer, "Diulio," then being constructed in the dock far below us. I had just got the image on the ground-glass to my entire satisfaction, my wife being engaged close by in her usual occupation when with me—that of searching for new sorts of ferns and wild flowers—when I was startled by a cry near, and on throwing off the focussing cloth what was my astonishment to see a man who had tight hold of my wife, and was dragging her along as hard as he could tear up the mountain. The shock was rather sudden, but not too much so to prevent me giving chase. My first thought (and what a lot one can think in a few seconds!) was of *brigands!* I remembered that the mountain above us had been celebrated for these gentry, and ransom the next. With all due respect to the party being abducted, I wished they might get it!

At any rate, I left my camera and tore after them, tumbling every second into the crevices on the mountain side, and getting scratched all over with the brambles through which I had to pass. In a moment more the whole mystery was explained by a tremendous explosion that shook the ground under us, and was echoed from far and near in every direction, and which proceeded from the spot where I had left my camera. A second after, an immense mass of portions of rock, stones, and *debris* shot high in the air, and came falling all around it. It seems that, hidden by a thick mass of brushwood, and just below where I had planted my camera, blasting operations on an extensive scale were being carried on, and an Italian working in the neighborhood,

whose presence we had not previously observed, having, perhaps, heard the signal, and seeing the imminent danger we were in, took the surest step to get us away, doubtless feeling certain that by running off with my wife I should be sure to follow, while valuable time would have been lost in any attempt at an explanation.

The only thing he could do when dragging my wife up the hill was to repeat the sounds, "Pst-Boom," not knowing any better way of explaining what he had to convey. On returning to the spot, the camera was found uninjured, though several masses of rock formed a new foreground that I had not previously calculated on. But for the energetic action of our imaginary brigand one of us might possibly have come to grief. His wages for that day exceeded, I expect, what he was usually in the habit of receiving.—WALTER B. WOODBURY in *British Journ. of Photography*.

NEW BOOKS.

AUSFÜHRLICHES HANDBUCH DER PHOTOGRAPHIE, von Dr. Josef Maria Eder. With 600 wood-cuts and 6 tables.

Our literature is about to be enriched by another text-book, which will certainly be an exhaustive one if each of the following numbers is the equal of the one now before us. Contrary to the customs of America and England, this book is published in a series of divisions, or "hefts," which will probably reach the number of twelve before the work is completed. The first number contains ninety-six pages, and, as far as we can see, is to be regarded as an historico-scientific summary of experiments hitherto made in the special interest of the chemical effect of light. The amount of painstaking research evidenced by such matters as the tables for variation in the intensity of light at different times of the year, for instance, is truly wonderful. We have no doubt that the following numbers will treat fully of the aesthetic and practical departments of our art, and we can only regret that its readers will probably be limited to those who are acquainted with the tongue of the fatherland.

COURS DE REPRODUCTIONS INDUSTRIELLES.

Par M. le Professeur Léon Vidal. Paris, 1882.

The above is the title of a new work devoted entirely to the various permanent printing processes, such as the heliographic, plastic, galvano-plastic, platinum, etc., and is a *resumé* of the course of lectures delivered by the author at the National School of Decorative Arts in Paris. The volume numbers about five hundred pages, and is

intended to give an idea of the various processes without being a text-book in the full sense of the word for any of them. It contains a number of very beautiful illustrations by the Woodbury, Photogravure (Rousselon), Heliogravure (Garnier) Typographic and other permanent printing methods, and is a veritable mine of interest and information. We are not often called upon to introduce two such very superior works as these to our readers.

Editor's Table.

PICTURES RECEIVED.—E. G. Robinson, 55 Franklin St., Michigan City, sends us \$5.00 for another year's subscription to the *Philadelphia Photographer*, and also encloses a few pieces of his dry-plate work. He uses them almost exclusively in the studio, and entirely so for views. The results will speak for themselves. Beebe plates—ferrous-oxalate developer. From Mr. W. V. STEVENS, Michigan City, Ind., creditable cabinets. From Mr. THOMAS CHARLES, St. Catharines, Ont., a very pleasing boudoir of a child and dog. From Mr. POTTER, Mansfield, O., some exceptionally fine panels, showing skill in all the departments of the art of portraiture. Mr. J. A. PALMER, of Aiken, S. C., favors us again with cabinets. From Messrs. HEMUS & HANNA, Auckland, New Zealand, a charming cabinet of "sixteen months' old." Mr. C. H. CODMAN, 34 Bromfield Street, Boston. Received; thanks. From Mr. LIEBICH, Cleveland, Ohio, two very remarkable stereos. of a statue in Monumental Park in that city, made by the Brush Electric Light, on the night of March 17th; CRAMER & NORDEN's dry-plates were used, and the time of exposure was four hours for one, and three for the other. The views are a success in every way, the detail in the shadows being well brought out.

We are pleased to see very flattering notices of the work of Mr. W. F. VAN LOO, in the Toledo papers, which also contain an announcement of his intended removal to more commodious quarters.

MESSRS. A. M. COLLINS, SON & Co., 527 Arch Street, have just issued a new catalogue of photographic card-stock. It is beautifully gotten up in every way, and the outside cover is embellished with a camera posed before a most attractive combination of woods and waters.

We have received a sample of improved photographic gelatine, specially manufactured for dry-plate emulsions (as the accompanying circular informs us), by Mr. C. W. HEINRICH, in Höchst am Main, near Frankfort, Germany. A number of distinguished names testify to the superior merits of the preparation: among others we find those of Dr. EDER, J. B. OBERNETTER, MAWSON & SWAN, etc.

BOOKS RECEIVED.—The *American Short-Hand Writer*, for March. Boston: Rowell & Hiekeox. *Appalachia*, for December, 1881. Boston: Appalachian Mountain Club. *Photographers' Bureau of Information*, for February. Chicago: Douglass, Thompson & Co.

THE *Medical News* contains an editorial calling the attention of the medical profession to the ease and cheapness with which the modern system of photography may be worked, and speaks of the advantages of the doctor becoming his own photographer.

A NEW PHOTOGRAPHIC STOCK-HOUSE.—Mr. ALBERT M. HARRIS, formerly with Mr. G. R. ANGEL, of Detroit, Mich., opens a new establishment at No. 15 Grand River Avenue, in that city, on April 1st. Mr. HARRIS's customers may depend upon having their orders promptly and carefully filled; his large experience in the past will also aid those who may be in doubt as to their selection. The new rooms are on the ground-floor.

WE are much pained to hear of the death of Mrs. T. M. V. DOUGHTY, on Wednesday, March 8th. In addition to her domestic qualities, highly appreciated by all who knew her, she was a most skilful worker in the various branches of photographic art.

We are pleased to report that our townsman, Mr. F. GUTEKUNST, received special notice at the last Exhibition of the American Institute, New York, in having awarded to him one of the ten Semicentennial Gold Medals for his phototype process; and a bronze medal for the best panoramic photographs. He has been awarded also a gold medal from the International Cotton Exhibition of Atlanta, Ga., for the phototype process; and a certificate of special excellence in general photographic work, and for the best crayon portrait of a little boy.

Mr. WALTER C. NORTH, of Utica, N. Y., writes us, under date of January 2d, as follows: "I enclose you a little friend that I know you will take to, as you love the little ones, and this is a dear little 'tot' of two years." We have taken to it, and we think our readers will thank us for reproducing the sweet little face in our cut on the cover of this month's journal.

MESSRS. CHARLES H. JORDAN and CLENDON H. SHEEN having bought out the business of Mr. W. D. GATCHEL, 168 Race Street, Cincinnati, will continue in the old location; in addition to the general photographic stock business, they are the sole agents for the Lightning Shutter heretofore sold by Mr. GATCHEL. A private letter further informs us that Mr. GATCHEL still continues his stock-house in Louisville, Ky.

We are very glad that our friend, Mr. WILLIAM BROWN, of Modesto, Cal., so far from being discouraged by the burning of his gallery in November last, announces his intention of erecting a large brick building on the same site this spring.

Mr. TAYLOR, whose article on ruby glass appears on page 119, has shown us some beautiful portraits on plates by the Crystal Dry-Plate Co., Indianapolis, their sensitiveness being seven times wet. They were all developed by the light described in his paper.

WANT of space compels us to lay over a valuable paper by Mr. CHARLES, of St. Catherines, on "Dry-Plates and Development."

A RARE OPPORTUNITY.—We understand that Mr. HENRY ROCHER is about to dispose of his studio in State Street, Chicago. We are sorry

to hear that continued ill-health is the cause of this move. His successor will step into a profitable position, and be enabled to still further better himself by obtaining the stock and fixtures at a reduced rate.

We have just received a circular from our correspondent, Mr. LEON VIDAL, of Paris, sent on behalf of the Committee on Photography of the "Exposition de L'Union Centrale des Arts Décoratifs," to be held at the Palais de l'Industrie, from the 1st of August until the 15th of November, 1882. Want of space prevents us from printing it, but we will furnish all information in our power to any one desiring to take part in the exhibition.

We clip the following from the Nashville *Daily American*:

A NEW INDUSTRY IN THE SOUTH.—Photography, although the art is still considered in its infancy, has for the last few years, from its numerous applications to science, attracted the attention of some of the most learned men in all countries, hence the great advance of late in its rapid development is due not to accidental discoveries, but absolutely to well-inaugurated researches and tedious experiments; for instance, the lately introduced gelatine dry-plates, by which instantaneous photography is now so easily produced, have been discussed and experimented with for over twenty-five years; practically, however, this new process has an existence of only a few years. At the organization of the Photographers' Association of America, at Chicago, in 1880, several pictures were made by this process, and the result was that the Association appointed a committee to investigate the advantages of the process. Of this committee our well-known artist, Mr. SCHLEIER, was made the chairman. That Mr. S. must have performed his duty well we simply need to mention that he is not only using these new plates, but stands to-day as the first manufacturer of the gelatine dry-plate in the South. Mr. S. claims his plates superior to many and equal to the best in the market, and for this reason is now enlarging his facilities for manufacturing, so that he will be able to supply the trade in the South. This new enterprise is commendable, and as Mr. S. is a well-known pioneer in photography in the whole South, we have no hesitation in predicting for him a good trade in supplying photographers in the South with these valuable instantaneous gelatine dry-plates.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.



February 18th, 1882.

LIST OF LATEST DESIGNS.

- No. 454. The Alman Interior.
 - No. 456. The Algiers Conservatory.
 - No. 457. The Mora Boudoir Panel (usual size 6 ft. x 8ft.). Very elaborate for full and three-quarter lengths.
 - No. 459. Bristol Valley. Winding stream, quaint farmer's bridge. Sketched from nature. *Design copyrighted.*
- New designs will appear each week from now till early summer, and Seavey will excel any of his former efforts in his exhibit at the coming convention at *Indianapolis.*

AN OPPORTUNITY.

To be sold at a nominal price, a finely arranged gallery, doing a large business in one of the pleasantest cities of the Union. Population, 100,000. Location, central. 8,000 or 10,000 first-class negatives, yielding interest on several thousand dollars yearly. Will sell with lease and negatives, or fully equipped and running.

Address "OPPORTUNITY,"

Office of *Philadelphia Photographer.*

WANTED.—A thoroughly competent printer, for first-class work in city in central New York.

Address "A."

Care *Philadelphia Photographer.*

ADDRESS WILLIAM McLAUGHLIN, 125 S. First Street, Brooklyn (E. D.), N. Y., Corresponding Secretary of Association Operative Photographers of New York, for operators, printers, and retouchers.

THE

Rockwood Solar Printing Co.

Is organized with every possible advantage of capital, experience, solar cameras, artificial lights, etc., for the prompt execution of orders in the way of enlargements.

New and Lower Price-Lists.

Size.	Unmounted.	Mounted.
11 x 14 and under.....	\$1 00.....	\$1 50
13 x 16 }	1 50.....	2 00
14 x 17 }	1 75.....	2 25
16 x 20 }	2 00.....	2 50
18 x 22.....	2 50.....	3 00
20 x 24.....	3 00.....	3 75
22 x 27 }	4 00.....	5 00
25 x 30 }	5 00.....	6 00
26 x 32.....	6 00.....	7 50
29 x 36.....	8 00.....	10 00
30 x 40.....		
35 x 45.....		
40 x 50.....		

SPECIAL NOTICE.

No CHARGE FOR NEGATIVES.—As much depends upon the good printing qualities of a solar negative, we will make solar negatives from copies, *without charge*, if the originals are sent to us with the orders for enlargements.

All orders must be accompanied by the cash. Make all P. O. orders payable to

ROCKWOOD SOLAR PRINTING Co.,
17 Union Square, New York.

THE NEW GELATINE BROMIDE PAPER, first introduced by us, for instantaneous printing, enables us to send enlargements for tracings by return mail.

THOSE meaning business, by sending a three-cent stamp, will receive some photographs of some of my scenery and accessories; all of Seavey's make, and which, as I have used one year, I desire to sell at fair prices, and replenish with new in May.

Address C. W. HEARN,
514 Congress St., Portland, Me.

THE NEW
EURYSCOPE.

TRY this new lens, and you will never buy any large portrait lenses. Voigtlander & Son's No. 7, and the smaller sizes, are very quick-acting, but as regards large-sized plates, the Euryscopes are far superior for groups, panel pictures, and large heads.



WILSON'S PHOTOGRAPHICS

Is the most complete, thorough, photo-instruction book ever published. Second thousand in store. See advertisements. \$4.

WANTED.—A good printer, with some knowledge of retouching and operating. Steady employment. None but a man of temperate and strictly moral habits need apply. Single man preferred. Please apply at once, and enclose a photograph of self, with reference from former employer.

M. THOMAS,

Shamokin, Pa.

NOTICE OF REMOVAL.—Mrs. Clarke, Artist, late of 561 Druid Hill Avenue, Baltimore, begs to inform her friends and the photographic profession that she has removed to 2104 North 20th St., Philadelphia, Pa., where she will be happy to receive any commission for water-color painting. Terms, etc., on application to Mrs. Clarke, or to the office of the *Philadelphia Photographer*.

S. G. NIXON, Portrait Artist, 813 Arch Street, Philadelphia, Pa. Solar enlargements finished in crayon, water color, and Indian-ink in true artistic style, and the likeness and expression faithfully preserved. Also small colored and Indian-ink work, etc. Terms moderate.

NOTICE.

THE WONDERFUL EURYSCOPES and NEW PORTRAIT LENSES.

Just received, a large invoice of the above Lenses. Those who have not succeeded in getting them, will do well to send in their orders at once.

BENJAMIN FRENCH & Co.,
Boston.



WILSON'S PHOTOGRAPHICS

Shows you how to group and pose children naturally and gives fine examples of work. Read the partial index herein. \$4.

**Wilson's Photographics. Ready.
Price, \$4.00.**

FOR SALE.—A good gallery on the ground floor; north light; doing a good business. The only gallery in a county of 12,000 population. County seat. Population 1500. Everything in good order. Will sell for \$500 cash. This is a splendid chance for a good man with small capital. Am doing a business of \$3000 a year. Don't write if you don't mean business. For full particulars, address

Box 64,

Minneapolis, Ottawa Co., Kansas.

WANTED.—A reliable travelling salesman for a western stock-house. Must be posted. State age, experience, and salary wanted and give reference. Address "B." this office.

I WANT a first-class operator; must be A 1 in his department. Also a first-class retoucher.

J. E. WATSON,

41 & 43 Monroe Ave., Detroit, Mich.

FOR SALE CHEAP.—Neat portable gallery in Wayne Co., Pa. Rare chance. Cash, or new stereo. lens and apparatus.

DAVIS,

Box 215, Deposit, N. Y.

MAKE YOUR OWN ENLARGEMENTS.—The Patent Gem Solar Camera will print the finest enlargements on albumen, platinum, or plain paper. Only \$60. Send for reduced price-lists of larger instruments. D. A. WOODWARD, Baltimore, Md.

THE PLATINOTYPE PROCESS.—Having disposed of their printing business in New York, Willis & Clements will now devote the whole of their time to manufacturing chemicals for the process, and to instructing licensees in working. They have appointed Thos. H. McCollin, 631 Arch Street, Philadelphia, Sole Trade Agent for the sale of the special materials and apparatus used in the process. Willis & Clements will answer all letters of inquiry concerning the process.

Proprietors of patents, WILLIS & CLEMENTS, 631 Arch St., Philadelphia, Pa.

Agent, THOS. H. MCCOLLIN, 631 Arch St., Philadelphia, Pa.

NOTE.—On receipt of \$1.75 a small supply of chemicals and paper will be sent to any one desiring to try the process.

Wilson's Photographics. Ready. Price, \$4.00.

FOR SALE OR EXCHANGE.—One view wagon in good trim; one dark tent, satchel form, and tripod; one 8x10 view camera, Am. Optical Co.'s best, and tripod; one No. 6 Morrison's wide-angle view-lens; one pair No. 2 Morrison Stereo. Lenses; one 4-4 Steinheil lens, cheap; one 9 x 13 background, cheap; one 8 x 10 background, new; one 6 x 8 cottage window; one organ, profile set piece; one Eastlake mantel, set piece; one staircase.

WANTED.—One 4-4 gem box, and four $\frac{1}{2}$ size Darlot lenses; one $\frac{1}{4}$ or $\frac{1}{2}$ size portrait copying lens; one Marcy's sciopticon; good posing chairs, etc.

The above goods are all in first-class order, some are entirely new, but not in use. For terms apply to

C. M. FRENCH, Garrettsville, Portage Co., Ohio.

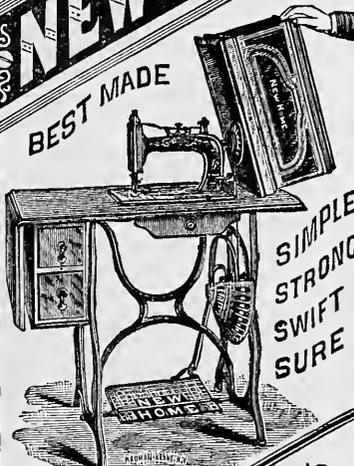
WANTED TO BUY.—A 20 x 24 double swing, cone bellows, view box; must be as good as new. Also lenses to suit above. State fully what make and company, and lowest cash price.

CHARLES WEITFLE, 377 Larimer St., Denver, Col.

WANTED.—A competent A No. 1 man to run a good gallery, must be a good operator and printer and first-class retoucher; temperate and well recommended. To such a one, good wages and a permanent place. Send photograph of self, sample of retouching, experience had, and wages wanted, to

CHARLES WEITFLE, 377 Larimer St., Denver, Col.

THE MOST POPULAR
OF ALL
SEWING MACHINES
is the
LIGHT-RUNNING
NEW HOME
BEST MADE
SIMPLE
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SURE
HAS NO EQUAL
IS ALWAYS
AND IN ORDER
WILL LAST
A LIFETIME
SURPASSES ALL OTHERS
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30 UNION SQ. NEW YORK
CHICAGO ILL. —
ORANGE MASS.
FOR SALE BY



D. S. EWING,
1127 CHESTNUT ST., PHILADELPHIA, PA.

WANTED.—A quick systematic man to take charge of getting out orders in a western stock-house; must be posted, and have good reference. Apply to E. L. WILSON, 912 Chestnut St., Philadelphia, in writing, giving reference, age, and salary wanted.



WILSON'S PHOTOGRAPHICS

DEVOTES 58 pages to instructions in posing and lighting the figure. See advertisements. \$4.

6. b c l y j x

A RARE CHANCE TO LEARN SHORT-HAND.—Rowell & Hickey, the publishers of the *American Short-hand Writer*, have opened the most complete school of short-hand in the United States at Boston, Mass.

For \$1.50 they will send this year's volume of their magazine, containing a full course in phonography, and correct the lesson exercises of all subscribers by mail, free. This offer holds good until January 1st, when the price of subscription is to be advanced to \$2.50. When the fact is known that a full course of instruction taken at their school in Boston costs \$75, the rare chance afforded by this extraordinary offer may be realized. Short-hand clerks, not expert, command a salary of \$75 a month upwards, while the standard prices paid for law reporting is \$10 a day. Why not get up a class in phonography here to learn through this medium? We will head the list ourselves, and receive and forward subscriptions for the *Short-hand Writer*.

DECEMBER 1st, 1881.

WILL Mr. Henry Morgan, who used to be of the firm of Morgan & Rowley, and then later Morgan & Taylor, and then later still Morgan & Meyer, of Norfolk, Virginia, send his address to his friend

CHARLES W. HEARN,

514 Congress St., Portland, Me.

No. 18. VIGNETTE No. 18. PAPERS, WAYMOUTH'S.

The old form of No. 18, Waymouth's Vignette Papers, oval, has been discarded, and a new pear-shaped style is now ready in its place. It is a beautiful piece of gradation and prints perfectly. Price \$1.25 per dozen. For sale by all dealers. See advertisement.

No. 18. NOW READY. No. 18.

GHON'S OPAQUE.—As a rule, photographers are familiar with this most convenient article of gallery use, but, doubtless, there are some who still are unacquainted with it. It is just what it claims to be, and so announces on the wrapper of each box: "A dense, non-actinic paint, for stopping out imperfect backgrounds, or defective skies in negatives, for coating the inside of lenses or other brass work, etc." It is an invaluable article, and should have a place in every photographic establishment in the country, whether large or small. A photographer lately remarked to us, "GHON'S Opaque is worth its weight in gold." This sounds rather exaggerated, as a cake of the compound is quite large, and of some weight; still it is most valuable, and its place can be filled by no other article now in the market.

That Opaque is very generally used, and that its use is daily growing was proved to us on a recent visit to New York. In the store of SCOVILL MANUFACTURING COMPANY, we noticed a large pile of these neat little packages, and on inquiry were assured that the demand was very large, and steadily increasing.

To those who have not tried opaque, we would say, send fifty cents to your stock-dealer and get a cake. You will wonder how you ever got along without it. Sold by all dealers.

REMOVAL!

THE Eagle Stock-House, which for the past four years has been located at No. 9 West Fourth St., will remove, May 1st, to No. 250 Mercer St., New York; where with increased stock, more room, and greater facilities for prompt shipping, the needs of the fraternity will be attended to with despatch unequalled by any house in the trade. Bargain list issued soon.

Address, until May 1st,

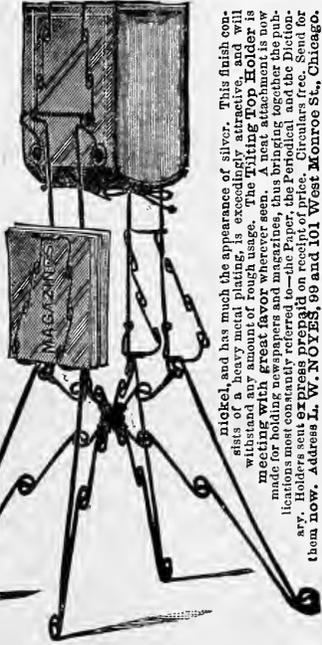
GEORGE MURPHY,

9 West 4th St., N. Y.

Will then move around the corner.

**A PLACE FOR YOUR DICTIONARY,
A PLACE FOR YOUR NEWSPAPERS,
A PLACE FOR YOUR PERIODICALS,
And an ornament for your house, all in one,
THE NOYES DICTIONARY HOLDER.**

A thousand dictionaries in out-of-the-way places will not distract, while a single dictionary in a Noyes Dictionary Holder will. In fact, the Holder is the great helper of the great lexicons, and in making these vast stores of learning available, is second only in importance to the lexicons themselves. The Holder is now made in five styles, but especially adapted for the Noyes Dictionary, the Noyes White Holder, the Noyes Magazine Holder, and the Noyes White Holder, the finish of which is more durable and brilliant than



nickel, and has much the appearance of silver. This finish consists of a heavy metal plating, is exceedingly attractive, and will stand up to the most rigorous tests. The Noyes Dictionary Holder is made to great favor wherever seen. A large amount is now made for holding newspapers and magazines, thus bringing together the publications most constantly referred to—the Paper, the Periodical and the Dictionary. Holders sent express prepaid on receipt of price. Circulars free. Send for them now. Address **L. W. NOYES, 99 and 101 West Monroe St., Chicago.**

I OFFER the following photographic, etc., apparatus for sale at half the market price. One solar camera (on casters); Jamin 4-4 lens, with view tube; one 4-4 New York optical works; one pair of Harrison's globe lenses; one pair of Dallmeyer's stereo. rectilinear (2½ inch focus); one pair of Dallmeyer's (with Diffusion adjustment) 4 inch focus; a pair of Dallmeyer's view lenses (6 inch focus); view lens (Voigtlander); dark room on wheels; two other kinds; one changing box holding eighteen plates, stereoscopic; Sarony's head rest, and other kinds; one telescope (astronomical and terrestrial); one compound microscope (extra objectives), etc., etc. Apply to

I. TOWLER,
Hobart College, Geneva, N. Y.

**Wilson's Photographics. Ready.
Price, \$4.00.**

WANTED.—To purchase or rent, a gallery in a city of ten thousand or more. Give particulars, business done, etc. Address

M. L. HARDWICK,
394 Marcy Ave., Brooklyn.

EXCHANGE COLUMN.

To accommodate those who have old apparatus, etc., to EXCHANGE (not sell), we offer to insert advertisements in this column at the low rate of 15 cents per line (of seven words), or fraction of a line. It will be found a cheap and helpful way of "unloading" useless articles about your studio for better ones. Cash to accompany all advertisements.

Would like to exchange four cabinets, also four card photos, with every photographer as samples for my collection. Send to

C. A. STACEY,
Box 340, Lockport, N. Y.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

A portrait painter who can give life-like and artistic pictures, and correct likenesses, wishes a situation for summer months at a popular summer resort. Is proficient in all branches of negative and photo. retouching in oil and water colors and crayon, on albumen and plain paper, and can meet the requirements of all classes of patrons. Address Marie Duclese, Cincinnati, Ohio.

By a first-class artist in crayon, oil, and water colors, who is also a good operator and printer, in photo. gallery at a live summer resort. Would take entire management of such a gallery for city photographer. Is a steady, reliable person, and can make business. Address J. F. Douglas, Cleveland, Ohio.

By a person twenty-one years of age, of ten months' experience in a gallery, and two months in a copying establishment, doing the copying. Can retouch (fair), tone, print, etc.; best of recommendation as to character. South preferred. Address C. S. McBride, Ravenna, Portage Co., Ohio. P. O. Box 128.

By a reliable and trusty workman, to operate, print, or retouch; or can color in water colors or ink. A permanent situation wanted. Address M., care of Edward L. Wilson, 914 Chestnut St., Philadelphia.

By a first-class retoucher and finisher, in some good gallery in Ohio. Have had four years' experience in all branches of the business. W. F. Bramby, Salem, Col. Co., Ohio.

By a first-class operator and manipulator in all branches of photography. Also by a general assistant, one year's experience. Lock Box 102, St. Albans, Vt.

As operator and general workman. Can furnish, if desired, a first-class photographic outfit. For references and samples, address Photographer, Box 304, Hartford, Conn.

By a young, unmarried man as operator; understands the business thoroughly, and can do first-class work. Samples furnished. Address A. McF., Box 1136, Altoona, Pa.

A lady negative retoucher is desirous of procuring a situation; reference given if required. Address, stating terms, L., Norristown P. O., Pa.



J. L. CLARK,
GOLD AND SILVER REFINER,
 ASSAYER AND SWEEP-SMELTER,
 REMOVED TO
823 Filbert St., Philadelphia, Pa.

RETURNS MADE IN STRICTLY PURE CHEMICALS.

REFERS TO, BY PERMISSION:

JOHN CARBUTT, Dry Plate Manufacturer, Philada.

WM. H. RHOADS, Photographer and Artist, Philada.

GILBERT & BACON, Photographers and Artists, Philada.

WM. H. CLIFFORD, Photographer and Artist, Philada.

The Improved Photograph Cover.

IT SERVES ALL THE PURPOSES OF AN ALBUM.

It is made with expanding back, so that from six to twenty-four pictures may be inserted in one cover. The pictures are mounted in the usual way, and then strips of linen or strong paper, of the proper width, are pasted on one edge, by which the picture is inserted and held in place in the cover by a paper fastener. For binding together views of your town or city, or portraits of celebrities, they are very neat. The following is a list of sizes and prices, without cards:

For Photographs.	Per doz.	Per hundred.	For Photographs.	Per doz.	Per hundred.
Card Size,	\$1.50	\$10.00	Cabinet Size,	\$2.25	\$13.00
EXTRA HEAVY COVERS.					
5-8 Size,	4.50	33.00	4-4 Size,	6.00	40.00
8-10 " " " " " "	8.00	56.50	11-14 " " " " " "	9.00	65.00

Special sizes made to order. Samples mailed at dozen prices. *Send for some.*

EDWARD L. WILSON, Photo. Publisher, 912 & 914 Chestnut St., Philada.

ALBERT MOORE THE SOLAR ENLARGER,
 THE LONGEST, LARGEST, AND BEST.
828 Wood Street, Philadelphia.

A NEW CATALOGUE OF
LANTERN SLIDES AND LANTERNS

READ IT. 15 CENTS IN STAMPS.

TELLS OF GASES WITHOUT BAGS, NEW LISTS OF SLIDES,
 THE ELECTRIC LIGHT IN THE LANTERN, NEW LANTERNS.

Lantern Lovers should be sure to Examine it.

EDWARD L. WILSON, 912 & 914 Chestnut St., Philadelphia.

THE PHOTOGRAPHER TO HIS PATRONS

Is a neat little leaflet of twelve pages of the size of the four pages below. It tells your patrons what you want them to see on **Photography as an Art; When to Come; How to Come; How to Dress; How to Behave; and about Children, Business, Frames, Copying, Coloring, and Prices.**

"THERE'S MILLIONS IN IT."

PHOTOGRAPHERS OF AMERICA :

In these times of competition we all want something to *stir up business*. It is believed that no means of advertising, half so good, was ever offered to photographers, as that acceptable little leaflet,

"The Photographer to his Patrons."

Its utility and usefulness are proven by the fact that it has been demanded and translated into Spanish and German; that over

1,000,000 copies have been sold,

and that hundreds of photographers have written to the author, testifying to its great value as a positive *business-bringer*.

I take the liberty of sending you a copy, and ask you, *for your own interest*, to read it carefully all through. I have, since its publication, issued two other works of a similar character—*Pretty Faces*, at half the price; and *Something New*, at the same price. But the choice still seems to be for the old favorite, and I am still supplying it continually. The sample herewith is of a lot lately printed; and I desire to call your especial attention to a method which will secure you all the advantages of this work as an

(i)

the expense of hiring a man and team to distribute then in adjoining towns. I shall, undoubtedly, want more when these are gone. I got \$13.50 for the advertisements."

We endeavor to get them up in attractive and elegant style; and in order to protect those who use them in the enjoyment of them, we have *copyrighted* them, and trust no one will attempt their degradation by cheap and badly-made copies of them. We can print them as cheap as any one can for the quality, and have

RECENTLY REDUCED THE PRICES

to the following scale :

500 copies,	\$9 00
1000 "	15 00
3000 "	36 00
5000 "	50 00

Some photographers have had as many as 25,000, using them continually. Please look into the matter, and send on your orders for all seasons.

We supply, free of charge, several beautiful fancy cuts for the covers; but where three of the pages are covered with other matter, the style of the present sample is the neatest. You can have your own choice.

As already said, these leaflets are used all over the country, often by our leading photographers, from some of whom were received the following testimonials.

(iii)

advertisement, and yet cost you little or nothing. *The four pages of the cover are yours, to use for what you please.* You only need the first page for yourself. Get advertisements from your neighbors, at a proportionate figure, for the rest, and your leaflets cost you only the expense of distribution.

Messrs. Albert & Son, Alexandria, La., have seven advertisers, another recently had eight. From six of them he got \$1.75 each, and from two, \$2.25 each; making \$15—the cost of 1000 leaflets. Examine the copy herewith.

Mr. H. C. Norman, Natchez, Miss., who has adopted the same plan, writes, viz.: "As an advertising medium the leaflets have no equal. Two hours secured me seven advertisements, amounting to \$17.50, leaving me \$5.00 balance for express charges; thus securing me 1000 leaflets for nothing. With a little energy any photographer can secure cards enough from his friends to pay for all the leaflets he requires, and he should not be without them. I have not only seen, but felt, the result of using them."

Mr. L. B. Truax, Swanton, Vt., writes, viz.: "The leaflets have been received and prove a decided benefit to me. I consider them the best advertising medium I have yet found. The merchants who advertised on the covers seem to be of the same opinion; one of whom went to

(ii)

KEEP YOUR EYE ON THIS!



TESTIMONIALS:

- "Send 5000 in English and 2000 in German." JNO. A. SCHOLTEN, St. Louis.
- "Let me have a lot as soon as printed."—J. F. RYDER, Cleveland, O.
- "It works satisfactorily in every way."—A. N. HARDY, Boston. (Mr. Hardy has had 4 or 5 lots.)
- "They are the best business-cards a photographer can have."—T. S. ESTABROOKE, N. Y.

EDWARD L. WILSON, Photo. Publisher,
912 & 914 Chestnut St., Philada.

(iv)

DEALERS' DIRECTORY.

The following houses are to be recommended as the best for photographers in their localities.

S. T. BLESSING, New Orleans, La.	Donglass, Thompson & Co. "Great Central," Chicago, - - - Ill.	JAMES H. SMITH, Quincy, Ill.
H. A. HYATT, Mound City Photo. Stock House, 411 North Fourth St., St. Louis, Mo.	D. J. RYAN, Savannah, Ga.	J. C. SOMERVILLE, St. Louis, Mo.
SCOVILL MANF'G CO., 419 & 421 Broome St., New York.	D. TUCKER & CO., Buffalo, N. Y.	BLESSING & BRO., Galveston, Texas.
C. H. CODMAN & CO. Boston, Mass.	WILSON, HOOD & CO., 825 Arch Street, Philadelphia, Pa.	B. FRENCH & CO. Boston, Mass.
WM. J. HAZENSTAB, 406 Market St., St. Louis, Mo.	EDWARD L. WILSON, Photo. Publisher, LANTERN SLIDES, 912 & 914 Chestnut St., Philadelphia.	THEO. SCHUMANN, Atlanta, Ga.
OSCAR FOSS, San Francisco, Cal.	G. B O D E, Milwaukee, Wisconsin.	W. D. GATCHEL, Cincinnati, Ohio.

GET THE BEST!

CRAMER & NORDEN'S
ST. LOUIS
EXTRA-RAPID DRY PLATES.

WARRANTED PERFECT,
 With Latest Formulas and Complete Directions for Use.

FOR SALE BY

G. GENNERT, 105 William St., New York, Agent for the Eastern States.	MULLETT BROS., Kansas City, Mo.
DOUGLASS, THOMPSON & CO., Chicago.	H. A. HYATT, St. Louis.
N. C. THAYER & CO., Chicago.	WM. J. HAZENSTAB, St. Louis.
HIRAM J. THOMPSON, Chicago.	JAS. C. SOMERVILLE, St. Louis.
C. J. RICE, Chicago.	H. LIEBER & CO., Indianapolis.
W. D. GATCHEL, Cincinnati.	JAS. H. SMITH, Quincy, Ills.
P. SMITH & CO., Cincinnati and Columbus, O. [ville, Ky.	G. MOSES, New Orleans.
W. D. GATCHEL & CO., Louis-	S. T. BLESSING, New Orleans.
V. ESCOTT & SONS, Louisville.	ZIMMERMAN BROS., St. Paul.
	GUSTAVUS BODE, Milwaukee.



**HEARN'S
STUDIES IN
ARTISTIC
PRINTING**

— BY —
G. W. HEARN,
Author of "Practical Printer."

SIX FINE CABINET AND PROMENADE PORTRAIT STUDIES.

AMONG OTHER THINGS IT CONTAINS.

Suggestions on the Choice of Albumen Paper—All the Best Silvering Baths, and Methods of treating the same—New Views on the Relation of the Silver Bath to the Time of Floating—The Different Effects Caused by the Time of Floating—How to Tell when Paper is Floated too Long or too Short a Time—Table for Time of Floating Paper under all Circumstances—The Importance of Care in Printing in Varied Ways—The Important Relation Printing from the Negative Bears to the Toning Bath—Fast Printing—Dialogue between "Joe" and a Friend—The Way to Success in Toning Lies in Printing—The Different Effects Caused in Printing by the Preparation of the Silver Bath—The Relation of the Silver Bath to the Printing from the Negative, and from this to the Toning Bath—Acetate of Silver—Success or Failure in Toning Caused by the Strength, Purity, and Alkalinity of the Silver Bath—*Harmony*, its Importance in Photography—Why its Neglect Causes such Disastrous Results—The Beautiful in Toning, and How to Obtain it—A Few Hints About Managing Toning Baths—Formulæ for Printing "Our Studies," as Given under Respective Headings—Impurities of Toning Baths—How it Affects the Toning, and How to Remedy such Baths—Fixing and Washing—Brilliance of the Finished Picture Attained by the Final Washing—Various and Valuable Hints about Finishing the Photographs, etc., etc.

Mailed to any address on receipt of price, \$3.50, by any stock-dealer, or by

EDWARD L. WILSON, Photo. Publisher, 912 & 914 Chestnut St., Philada.

SOLD BY ALL DEALERS. ASK TO SEE IT.

SINGHI'S VIGNETTING ATTACHMENT FOR PRINTING FRAMES.

To be used with WAYMOUTH'S VIGNETTE PAPERS.

(Patent Applied for.)

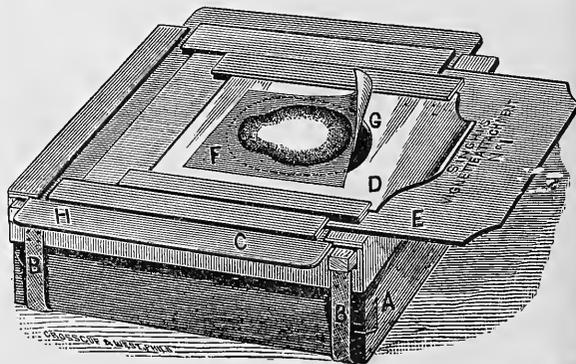
J. F. SINGHI, Inventor.

The best arrangement for adjusting these best of vignetting appliances in the world.

5x8 size now ready.

Price, by mail, \$1.50.

See description in this Magazine, June, 1881, or in *Wilson's Photographics*.



FOR SALE BY ALL DEALERS.

AN OLD ESTABLISHMENT WITH A
NEW BRAND OF ALBUMEN PAPER.

**CLEMONS' BRAND OF
ALBUMEN AND MATT SURFACE, SALTED,
PAPERS.**

Our "Extra Brilliant" Albumen Papers, Pearl, White and Pink, also our Matt Surface (Salted) Papers, can now be had at

\$35.00 per Ream; 90 cts. per Dozen; 10 cts. extra per mail.

Send in your orders at once. Address

JOHN R. CLEMONS, 915 Sansom St., Philadelphia, Pa.

LIGHT IN THE DARK ROOM.

CARBUTT'S MULTUM IN PARVO LANTERN.

(PATENT APPLIED FOR.)

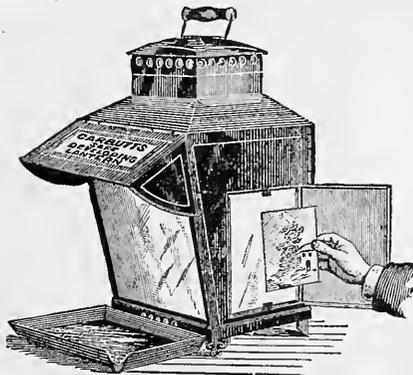


Lantern arranged for making positives by contact.

The following are some of the advantages possessed by this Lantern: It is simple and easy to manage, nothing complicated, yet has three separate and distinct forms of light, and can be used for seven or more different operations in photography. It is adapted for the use of either oil or gas; is provided with coal-oil lamp, an improved patent burner, and silvered reflector, is about nine inches square by fourteen high, with 8 x 10 light of deep ruby glass in front, and hood for protecting the eyes from the glare of the red light. A fuller descriptive circular sent on receipt of postal and address.

Price, \$6.00, boxed, ready for shipment.

Can be ordered of any dealer in Photographic Materials, or direct from the Inventor,



Lantern arranged for developing, and after fixing, examining negative by opal light.

JOHN CARBUTT,

Manufacturer of Bromo-Gelatine Dry Plates, Philadelphia.

NEW DRESDEN
 EXTRA  BRILLIANT
 ALBUMEN PAPER
 WHITE, PINK, PENSÉ.

FREE from BLISTERS and IMPERFECTIONS.

TESTIMONIALS.

MILWAUKEE, October 11th, 1881.

G. GENNERT, Esq.,
 New York.

DEAR SIR: The paper works lovely, and is a
 Godsend to the photographers.

Very truly, HARRY SUTTER.

MR. G. GENNERT.

DEAR SIR: One ream Extra Brilliant Eagle
 pink received and tried; my printers say it is the
 best they have had for years; it keeps perfectly
 white, which is one of the greatest features for us
 in St. Louis. It prints and tones fine. I am
 satisfied with the beautiful prints I've received for
 the past week, which is something, you know, I
 am hard to be pleased with. Keep it up, and
 send another ream immediately.

Yours truly, J. A. SCHOLTEN.

MILWAUKEE, October 3d, 1881.

G. GENNERT,
 105 William St., New York.

DEAR SIR: I wish to express my appreciation
 of the Eagle Brand Albumen Paper. I am
 highly pleased with it, it being the best I ever
 used, and for purity of tone and clearness in the
 high-lights and shadows it cannot be excelled.

HARRY SUTTER.

G. GENNERT, Esq.

DEAR SIR: I have received the 10Ko and
 8Ko Eagle light pink albumen paper which you
 sent me a few weeks ago, and now I have care-
 fully tried it, I can but say it is by far the best
 paper we have worked for a long time. Hoping
 the quality will remain the same for all time to
 come, I shall not want to use another brand.

Yours truly, H. ROCHER.

IMPORTED BY

G. GENNERT,
 105 WILLIAM ST., NEW YORK.

FOR SALE BY ALL DEALERS.

1882.

Photographers'
 Booksellers,
 Stationers,
 and
 Newsdealers
 Publishers of
 Hints on Burnishing
 Photographs,
 AND THE
 Photographers' Monthly
 Bureau of Information



1882.

We are
 MERCHANTS
 in
 ALL REQUISITES
 PERTAINING
 to the
 ART-SCIENCE
 of
 PHOTOGRAPHY.

Douglass, Thompson & Co.

Nos. 229 & 231 State Street,

GAYTON A. DOUGLASS.
 HENRY G. THOMPSON.

CHICAGO.

GELATINE BROMIDE DRY PLATE.

Beebe's, Cramer & Norden's, Eastman's, Carbutt's.

Outfits, and everything used in Dry Plate work.



We invite cash trade, believing it for the best interests of all parties to adopt the pay as you go system.

With us, cash with order, or on C. O. D. purchases, insures a discount of **5 PER CENT**, deducted from bill, in addition to the very low prices we offer.

A practical knowledge of the Art-Science of Photography gives us a special advantage in meeting all demands.

Our Warerooms are commodious, located conveniently for business, our stock ample for all usual demands, fresh, carefully selected, and we can sell at prices satisfactory to the consumer. **We deal in nothing but supplies for Photography**, devoting our whole time and energies to the wants of our patrons, thus offering a special advantage to such who appreciate care and attention. We study promptness in meeting all favors entrusted to us, and guarantee exactness.



A NEW TREATMENT

For Consumption, Asthma, Bronchitis, Catarrh, Dyspepsia, Headache, Debility, Neuralgia, Rheumatism, and all Chronic and Nervous Disorders.

ADMINISTERED BY INHALATION.

ACTS DIRECTLY upon the great nervous and organic centres, and *cures by a natural process of revitalization.*

HAS EFFECTED REMARKABLE CURES, which are attracting wide attention.

HAS BEEN USED BY Rt. Rev. John J. Keane, Bishop of Richmond, Va., Hon. Wm. D. Kelley, T. S. Arthur, and others, who have been largely benefited, and to whom we refer *by permission.*

IS STRONGLY ENDORSED: "We have the most unequivocal testimony to its curative power from many persons of high character and intelligence."—*Lutheran Observer.* "The cures which have been obtained by this new treatment seem more like miracles than cases of natural healing."—*Arthur's Home Magazine.* "There is no doubt as to the genuineness and positive results of this treatment."—*Boston Journal of Commerce.*

THE OXYGEN HOME TREATMENT contains two months' supply, with inhaling apparatus and full directions for use.

SENT FREE: a Treatise on Compound Oxygen, giving the history of this new discovery and a large record of most remarkable cures. Write for it. Address

DRS. STARKEY & PALEN, 1109 and 1111 Girard St., Philadelphia, Pa.

DEPOSITORY ON PACIFIC COAST.

WE HAVE ESTABLISHED A DEPOSITORY OF OUR COMPOUND OXYGEN HOME TREATMENT at San Francisco, Cal. This will enable patients on the Pacific Coast to obtain it without the heavy express charges which accrue on packages sent from Eastern States.

All orders directed to H. E. MATHEWS, 606 Montgomery Street, San Francisco, Cal., will be filled on the same terms on which we fill orders sent directly to our office in Philadelphia.

Patients ordering from our depository in San Francisco should, at the same time, write to us, and give a statement of their case, in order that we may send such advice and direction in the use of the Treatment as their special disease may seem to require.

ALSO SENT FREE

"*HEALTH AND LIFE*," a quarterly journal of cases and cures under the Compound Oxygen Treatment. Nos. 1 and 2 now ready. Address

DRS. STARKEY & PALEN,
Nos. 1109 and 1111 Girard Street, Philadelphia, Pa.

FREE LUNCH!

WE WILL SEND YOU A SAMPLE OF OUR

UNION NEGATIVE COTTON, FREE OF CHARGE,

So that you may try it and be convinced of
ITS SUPERIOR QUALITY.

IF YOU NEVER HAD WASTE REFINED BY US
GIVE US A TRIAL AND COMPARE RESULTS
Circulars How To Save Waste, free on application.

CHAS. COOPER & CO.,
194 Worth St., New York.

PHOTOGRAPHIC COLORISTS' GUIDE THE

\$1.50

AT



By the late **JOHN L. GIBON**

→ **PHOTOGRAPHIC COLORING.** ←

The growing demand for a fresh work on *Photographic Coloring*, one that contains full instructions on all the new and improved methods—for like photography itself, photo. coloring has improved and progressed—has led to the publication of the above.

ITS CONTENTS ARE:

PREFACE.

- Chap. I. On India-ink Work.
- II. The Principles to be Considered in the Application of Colors.
- III. The Materials used in Finishing Photographs with Water Colors.
- IV. Water-color Painting as Applied to Photographs.

- Chap. V. Relative to the Use of Paints that are Mixed with Oil.
- VI. Coloring with Pastels.
- VII. The Production of Ivorytypes.
- VIII. The Crystal Ivorytype.
- IX. Crayon Work.
- X. Negative Retouching.
- XI. About Matters so far Forgotten.
- XII. Rudimentary Perspective.

The last chapter is on a subject entirely new and fresh, and is finely illustrated.

Mailed on receipt of price,
\$1.50 per copy.

EDWARD L. WILSON,
PHOTO. PUBLISHER,
912 & 914 Chestnut Street, Philadelphia.

IMPORTANT TO PHOTOGRAPHERS.

ONLY THE BEST GOODS
ARE
COUNTERFEITED!

IT DON'T PAY TO IMITATE INFERIOR ONES.

Extra Brilliant "S. & M." Paper,

Extra Brilliant "N. P. A." Paper,

Extra Brilliant Cross Sword Paper,

Have all been counterfeited, and cheaper goods imposed upon Photographers.

NONE OF THE ABOVE ARE GENUINE

Unless the water-mark is seen, in each case, by looking through the paper:

"S. & M." in the "S. & M." Paper,

"N. P. A." in the "N. P. A." Paper,

"Cross Swords" in the Cross Sword Paper.

THE STAMP in the CORNER DON'T PROVE ANYTHING,
 Look THROUGH the paper.

E. & H. T. ANTHONY & CO.,

591 BROADWAY, NEW YORK,

HEADQUARTERS FOR ALL KINDS OF ALBUMENIZED PAPERS.

**A. M. COLLINS,
SON & CO.**

MANUFACTURE ALL KINDS OF

CARDS and CARDBOARDS

FOR

PHOTOGRAPHERS

AND

MATS and MOUNTS

FOR

FERROTYPES.

WAREHOUSE:

**527 ARCH STREET,
522 CHERRY STREET,
PHILADELPHIA.**

PRICE LISTS ON APPLICATION.

JOHN G. HOOD.

ESTABLISHED 1865.

WM. D. H. WILSON.

WILSON, HOOD & CO.

825 Arch Street,
PHILADELPHIA,

SOLE AGENTS IN THE UNITED STATES FOR THE
LONDON, 1851. LONDON, 1862. PARIS, 1867.



ennial, 1876.

Centennial, 1876.

Ross' Portrait and View Lenses.

WE HAVE
NOW
IN STOCK

Portrait Lenses, from 1-4 to 8 x 10.
Cabinet Lenses, Nos. 2 and 3.
Card Lenses, Nos. 1, 2, and 3.
Triplets, Nos. 1, 2, 3, 4, 5, 6, and 7.
Symmetricals. Rapid Symmetricals.

Instantaneous Doublets, all sizes.
Medium Angle Doublets, all sizes.
Large Angle Doublets, all sizes.
Stereographic Lenses, all sizes.
New Universal Lens.

Numerous testimonials pronounce them to be the *best* as well as the *cheapest* Foreign Lenses ever offered to the American Photographer. We will mail price list on application, and promptly fill all orders.

Steinheil's Sons' NEW APLANATIC Lenses.

We now have a full stock of these Celebrated Lenses, at the following prices:

No. 1-1-4 size, 3 1/4 inch focus, \$25 00	No. 5-10 x 12 size, ... 13 1/2 inch focus, ... \$70 00
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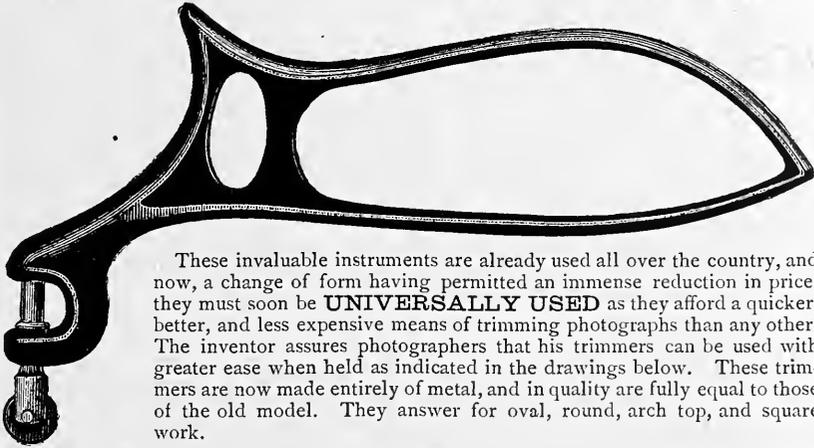
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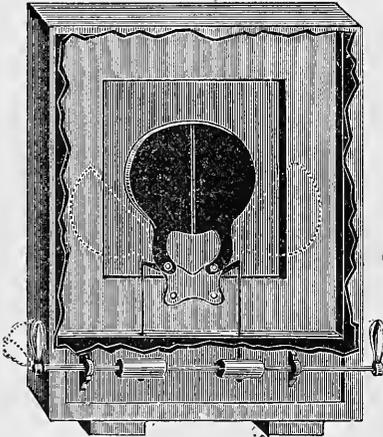
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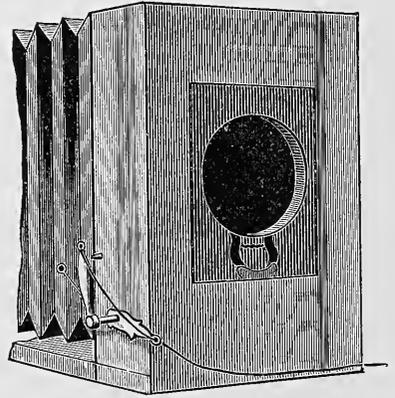
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It is a continuous world's exposition of what transpires, and has continually in view the ADVANCE and PROGRESS and GROWTH of the art, its votaries and their BUSINESS INTERESTS.

Better results are promised for the future, and no pains or expense will be spared to SECURE all needed, and to PREVENT all not needed by our subscribers.

Our pictures are partly printed for the new year, and include the work of Gilbert & Bacon (with two of Osborne's foregrounds), Philadelphia; eleven studies (in a "Mosaic" group) by five of the best Paris photographers; life statuary, by John A. Scholten, St. Louis; D. H. Anderson, New York; J. H. Lamson, Portland, Me.; J. E. Beebe, Chicago, Ill.; Henry Rocher, Chicago; a fine Colorado view; some views, etc., from foreign lands—as many as can be crowded in—an elegant album.

Photo-engravings, studies in pose, etc., will be profusely scattered through the volume, and EVERYTHING done to make this Magazine SO GOOD YOU CANNOT AFFORD TO BE WITHOUT IT.

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SUMMARY OF CONTENTS.

Our Picture,	129	Proofs from Portrait Negatives,	145
Alphonse Poitevin,	130	Foreign Items,	146
Echoes from the Orient. By EDWARD L. WILSON,	131	Some Hints on the Working of Dry Plates.	
Associations and Conventions,	135	By THOMAS CHARLES,	147
A Chance for an Inventor. By R. E. WOOD,	137	Photographic Experiences in the East. By	
Proceedings of Societies,	138	WILLIAM H. RAU,	149
Pertaining to the P. A. of A.,	140	Rectifying Negative Baths,	151
Instantaneous Shutters. By CHARLES R. PAN-		German Correspondence. By H. W. VOGEL,	153
COAST,	142	French Correspondence. By LEON VIDAL,	156
Answers to Questions to the Craft,	144	Editor's Table,	160

EMBELLISHMENT.—Landscape Study. Negatives by WILLIAM H. RAU.
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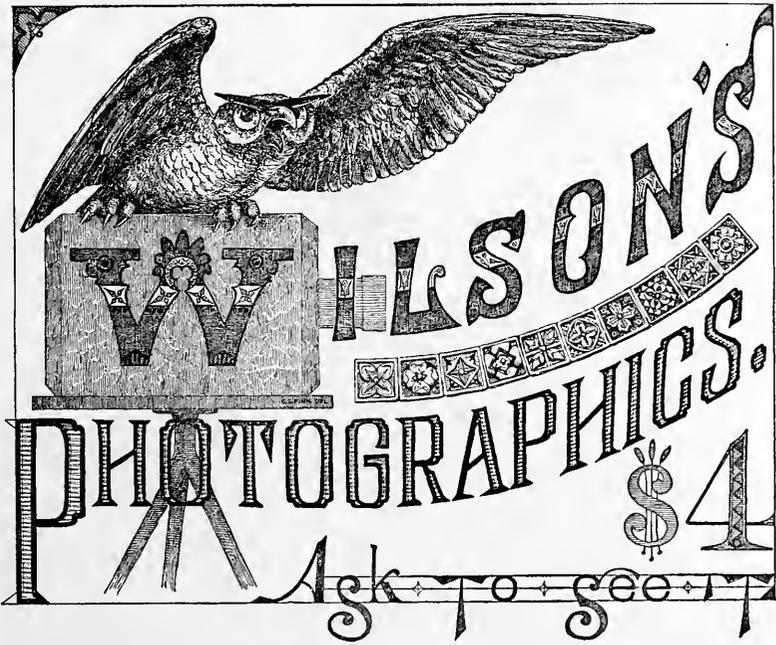
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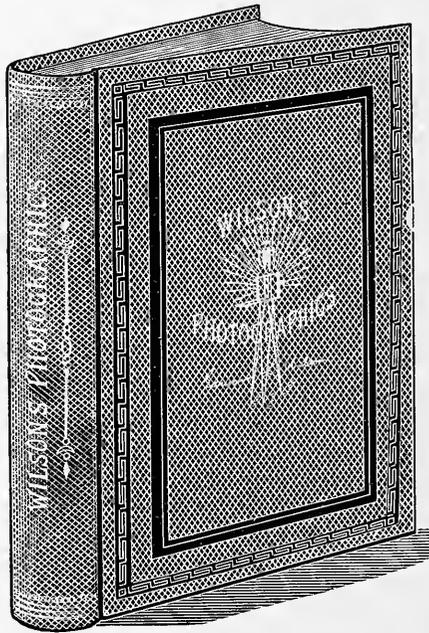
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 Alum, Treatment of the Prints with.
 Angle of View possible with a Lens.
 Angular Composition.
 Aniline Blue for Pure Whites in Prints.
 Apparatus, Dry-Plate for Landscapes.
 Arrangement of Drapery, Raphael's.
 Art among Photographers. and Art Rules.
 Principles applied to Photog.
 Artificial Light for Solar Print-
 "Artotypes." [ing.
 Atmospheric Effect.
 Backgrounds.
 Frames for.
 How to Make and Paint.
 Bath, Boiling down the.
 Decolorizing the Printing.
 Fusing the.
 Rectifying the.
 Removing Albumen from the.
 Testing the Strength of the.
 The Fixing.
 The Nitrate.
 Troubles.
 Black and White Negatives.
 Blistering of Prints.
 Blueness of the Film.
 Bold Prints from Flat Negatives.
 Breadth of Effect.
 Brilliancy in a Photograph.
 Bromo-Gelatin Emulsion Work.
 Alkaline Developer for.
 Calculations, Table for.
 Carbutt's Cruet for.
 Chemicals for.
 Development of.
 Drying the Plates.
 Exposure of.
 Fogging of.
 Frilling of.
 Intensifying.
 Printing.
 Rapidity of.
 Reducing.
 Retouching and Varnishing.
 Spreading the Gelatin.
 Strengthening.
 Washing.
 Burnishing the Prints.
 Camera, Care of the.
 How to tell a good.



Card-Board, Cockling of the.
 Cheapness.
 Chemicals and Solutions, The.
 Chemistry of Out-Door Formulæ.
 Chiaro-Oscuro, or Light and Shade.
 Chloride of Gold, Saving.
 of Silver, into a Metallic State.
 Clouds and Sky, The.
 in Out-Door Views.
 Printing in.
 Collodion Bromized.
 Changes.
 Double Iodized.
 for Hot Weather.
 for Interiors.
 Intense.
 Out-Door, Water In.
 Troubles.
 Collodion Transfers.
 Coloring.
 Gelatin Paper for.
 Iodizers for.
 Printing.
 Collodionizing the Plate.
 Color, Good, Printing for Negatives.
 Composition, Angular.
 Circular.
 Pyramidal.
 Concluding Confab.
 Contraction and Expansion of
 Paper.

Contrasts, Violent.
 Correctness and Comparison.
 Curtains for the Studio.
 Dark-Room, The.
 Dark-Tent, The.
 Defective Toning of Prints.
 Defects and Dryness of Albumen Paper.
 Dense Negatives, Printing.
 Developer, The Iron.
 The Iron and Ammonia.
 Development, The.
 Best Rule for the.
 Diaphragm.
 Use of the. [Printing
 "Doctoring" Negatives for
 Drapery, Raphael's arrangement of.
 Drying-Box for Phototype
 Plates.
 Cupboard for Emulsion
 Plates. [Plate
 Cupboard for Phototype
 Oven for Phototype Plates.
 Room, The.
 the Paper.
 the Prints.
 Vogel's Collodion Emulsion
 Education of Photographers.
 Effect, Breadth of.
 Effects, Brilliant.
 of Light.
 Encaustic Paste for Prints.
 Enlargements and Lantern Slide
 Enlarging Carte-de-Visite Negatives.
 Exposure for Phototype Plates.
 for Platinotypes.
 of Bromo-Gelatin Plates.
 Shortening.
 Time of.
 Eye, Education of the.
 of the Sitter.
 Faces, The Study of.
 Fading of Prints.
 Ferrous-Oxalate Developer, The.
 Field Work.
 Figures in.
 Foreground Study in.
 Film, Blueness of the.
 Weakness of the.
 Filtering Albumen for Phototype
 Gelatin for Phototypes.
 Finishing and Mounting.
 Fixing.
 Flat Negatives, Printing.
 Flatness and Want of Contrast.
 Fogging.
 Formation of Network on the Film
 Fumes, Poisonous.
 Fuming the Paper.
 Fusing the Bath.
 Glace Prints.
 Glass, Preparation of the.
 Studio, The.

old Toning-Bath, Treatment of the.
un-Cotton, The.
ands, The.
Stains on the.
armony.
orizontal Lines.
ensnik's Process for Phototypes.
nsensifier, The.
Ammonia and Mercury.
Bichloride of Mercury.
Ferrid Cyanide.
Iron and Acid.
Perchloride of Iron.
Permanganate of Potash.
Pyrogallic Acid.
Schlippe's Salts.
Silver and Acid.
nterior Work.
aolin, Rectifying Printing-Bath with.
andscape Apparatus.
Photography.
Views, Formula for.
antern Slides and Enlargements.
eaking of the Glass Studio.
ens or Objective, The.
enses, Angle of View Possible with.
Choice of.
Forms of.
Light and Accessories.
and Shade, or Chiaro-Oscuro.
Reflected.
Lighting, Rembrandt's Style of.
"Lightning" Processes.
Linen, Printing on.
Lubricating the Prints.
Managing the Model.
Manipulations, The.
Manipulatory Miseries.
Marbled Appearance of the Paper.
Red Lines on Prints.
Mealiness in Prints.
Measles or Mottles on Prints.
Measuring Metrical.
Medallion Printing.
"Megatypes."
Metallic Spots in Prints.
Model, Study the.
Mounting and Finishing.
Paste.
without Cockling.
Nature, Study.
Negative, A Generally Wretched.
Negatives, Black and White.
Defects in.
"Doctoring" for Printing.
for Solar Printing.
Preserving of.
Printing Dense.
Printing Weak.
Removing Stains from.
Network, Formation on the Film of.
Objective or Lens, The.
Objects, Distances of.
Only Lines in Negatives.
Opaque for Negatives, Gihon's.
Outside Photography.
Chemistry of.
Work, Art Principles in.
Work, Clouds in.
Work, Exposure.
Work, Keeping Plates for.
Work, Tent for.
Over-Exposure of Bromo-Gelatin Plates.
Paper, Cockling of the
Drying the.
Expansion and Contraction of.

Fuming the.
Keeping White the.
Marbled Appearance of the.
Sensitizing the.
Woolliness of the.
Paste for Mounting.
Patches and Stains on Prints, Yellow.
Perplexities, Printing.
Perspective.
Photography, Landscape.
Phototypes, Basis for.
Exposure of the Negatives for.
Husnik's Substratum for the Plates for.
Inking the Films for Printing.
Pinholes.
Plain Paper, Printing on.
Platinotypes, Sensitizing the Paper for.
Cleaning and Washing.
Development of.
Exposure of the Paper.
Poisons.
Porcelain, Printing on.
Posing, Suggestions about.
Preserving Negatives.
Printing, Art in.
by the Solar Camera.
Dense Negatives.
Development Process of.
Flat Negatives.
Medallions.
on Albumen Paper.
on Various Surfaces.
Stereoscopic Views.
Temperature in.
Vignettes.
Weak Negatives.
Printing-Bath, The.
Decolorizing the.
Strengthening the.
Printing-Room, The.
Prints, Acidifying the.
Blistering of the.
Burnishing the.
Defectively Toned.
Drying the.
Encaustic Paste for.
Fading of the.
Fixing.
Glaze.
Imperfect Washing of the.
Lubricating.
Measled or Mottled.
Metallic Spots in.
Refuse to Tone.
"Spotting" the.
Touching Out.
Treatment with Alum of the Trimming.
Warm-Water Washing of.
Washing in "Lead Water."
Washing the.
With Red Marbled Lines.
Yellowness of the.
Productions of Photography, The.
Public, Relation of the Photographer to the
Pure Whites in Prints.
Quick-Acting Processes.
Red Patches on Prints.
Reducing Process for Solar Negatives.
Reinforcing the Negatives.
Rembrandt's Style of Lighting.
Removing Stains from Negatives.
Retouching Bromo-Gelatin Plates.
Process, Solar Negative.
the Negatives.

Reversing the Negative, Apparatus
Robinson's Print Trimmer. [for.
Screens and Curtains.
Sensitizing Paper for Platinotypes.
the Paper.
the Plate.
Shortening the Exposure.
Silver Iodide, to make.
Saving, Method of.
Solutions, Volumetric Test of.
Sky and Clouds, The.
Softness in Lighting.
Solar Camera Printing.
By Artificial Light.
Camera Printing Negatives, retouching.
Negative Reducing Process.
Retouching Process.
Stains from Negatives, Removing on the Hands.
Stereoscopic Views, Printing.
Negatives Preparing.
"Stop," Use of the.
Streaks and Stains in Negatives.
Strengthening Gelatin Emulsion Plates.
the Printing-Bath.
Studio, the Glass.
Construction of the.
Curtains.
How to Build a.
Leaking of the Glass.
with Curved Light.
Working Plans for Construction.
Subject, Choice of.
Treatment of.
Table for Converting Centigrade into Fahrenheit.
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Temperature in Printing.
Tent, The Dark.
Testing of Silver Solutions.
Toning the Prints.
Bath, Treatment of the Gold.
Defective.
Solutions.
Touching out Prints.
Transfers, Collodion, Iodizers for.
Coloring.
Developer for.
Fixing.
Gelatin Paper for.
Printing.
Transparencies, Bromo-Gelatin.
for the Magic Lantern, To make.
Treatment of the Subject.
Use of the Diaphragm.
Varnishes and Varnishing.
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Views of Interiors.
Collodion for.
Exposure for.
Figures in.
Light for.
Selection of.
Vignette Printing.
Paper, Weymouth's.
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The increasing interest in Dry-Plate Photography, and the impetus given by it to the work of the amateur, has created a demand for special apparatus which is light, compact, and easily carried about. We are, as usual, up to the requirements of the times. The Cameras and Apparatus of our make are known to be in every respect the most accurate and of the lightest weight of any in the world.

We beg to call your attention to the following Price Lists of



New Style Equipment.

Ne Plus Ultra Apparatus Outfits.

All Articles of which are Warranted Accurate in every Respect.

OUTFIT A, complete, price \$10, comprises a VIEW CAMERA, black, with rubber bellows and rigid platform, for making 4 x 5 inch Pictures; 1 Patent Double Dry-Plate Holder; 1 Tripod Camera Stand; 1 "Waterbury" Achromatic Nickel-Plated Lens with Standard English Flange; 1 Carrying Case.

OUTFIT B, complete, price \$12, comprises a VIEW CAMERA for taking 5 x 8 inch Pictures. Same style as A Camera. 1 Patent Double Dry-Plate Holder; 1 Tripod Camera Stand; 1 "Waterbury" Achromatic Nickel-Plated Lens with Standard English Flange; 1 Carrying Case.

OUTFIT C, complete, price \$18.50, comprises a VIEW CAMERA for making 5 x 8 inch Pictures. This Camera is constructed so as to make either a CABINET PICTURE on the full size of the plate (5 x 8 inch), or, by substituting the extra front (supplied with the outfit) and using the pair of lenses of shorter focus, it is admirably adapted for taking STEREOSCOPIC NEGATIVES, also by the same arrangement two small pictures, 4 x 5 inches each, of dissimilar objects can be made on the one plate. Included in this outfit are also 1 Patent Double Dry-Plate Holder; 1 large "Waterbury" Achromatic Nickel-Plated Lens with Standard English Flange; 1 pair "Waterbury" Achromatic Nickel-Plated Matched Stereoscopic Lenses; 1 Tripod Camera Stand; 1 Carrying Case.

American Optical Company's Apparatus Outfits.

This apparatus is manufactured in New York City, under our immediate personal supervision; and, as we employ only highly skilled workmen, and use nothing but the choicest selected materials, we do not hesitate to assert that the products of our factory are unequalled in durability, excellence of workmanship, and style of finish. This fact is now freely conceded not only in this country but throughout Great Britain, France, Germany, Australia, and South America.

Quality being considered, our prices are moderate, as the same grade of apparatus cannot be supplied for less price.

OUTFIT No. 201, complete, price \$26.50, consists of a MAHOGANY POLISHED CAMERA for taking pictures 4 x 4 inches, with *Folding Bellows Body*, single swing hinged bed and brass guides. It has a shifting front for adjusting the sky and foreground, also 1 Patent Double Dry-Plate Holder; 1 Taylor Folding Tripod; 1 Canvas Case to contain Camera and Holder.

OUTFIT No. 202, complete, price \$27.00, consists of a FOLDING MAHOGANY CAMERA for taking 4 x 5 pictures, same style as 201 Camera; also, 1 Patent Double Dry-Plate Holder; 1 Canvas Carrying Case; 1 Taylor Folding Tripod.

OUTFIT No. 203, complete, price \$41.00, consists of a FOLDING MAHOGANY CAMERA, fully described in American Optical Company's Catalogue, and well known as the '76 Box. It is adapted for taking 5 x 8 pictures, and also for taking stereoscopic views, together with 1 Patent Double Dry-Plate Holder; 1 Canvas Carrying Case; Taylor Folding Tripod.

Cameras in Outfits 202 and 203 have shifting fronts, and are equal in style and finish to the best of the American Optical Co.'s make.

OUR NEW PATENTED DRY-PLATE HOLDERS

are the best made, and answer the demand in dry-plate work for something that will exclude all light. Prices of *EXTRA Patent Double Dry-Plate Holders* are as follows:

4 x 4 Holders, for two Plates,	. . . .	each, \$3.00
4 x 5 " " "	. . . .	" 3.00
5 x 8 " " "	. . . .	" 4.00

For a choice of Lenses suitable to these Outfits, see next page.

MORRISON'S Wide-Angle View Lenses.

PATENTED MAY 21st, 1872.

These Lenses are absolutely rectilinear; they embrace an angle of fully 100 degrees, and are the most rapid *wide-angle* lenses made. We recommend them for use with the foregoing outfits.

Price of Morrison's Wide-Angle Lenses.

No. 1, $\frac{3}{4}$ Diam. of Lens,	4 x 4 in. Plates,	3 in. Equiv. focus.	Price each,	\$25.00
No. 2, 1 " " " "	4 x 5 " " "	$3\frac{1}{2}$ " " " "	" " "	25.00
No. 3, 1 " " " "	$4\frac{1}{2}$ x $7\frac{1}{2}$ " " "	$4\frac{1}{4}$ " " " "	" " "	25.00
No. 4, 1 " " " "	5 x 8 " " "	$5\frac{1}{4}$ " " " "	" " "	25.00

MORRISON'S Rapid Stereoscopic Lenses, FOR INSTANTANEOUS VIEWS OR LAWN GROUPS.

They are entirely different, in many particulars, from any other lenses in the market. They are 6 inch focus and $1\frac{1}{4}$ inches in diameter, and are, of course, made in matched pairs, with a set of diaphragms also for 5 x 8 views.

A novel and ingenious instantaneous drop is also provided, passing through the brass work, on the same principle as a central stop, by which *absolutely instantaneous views* may be made, sharp all over to the very edges, without being diaphragmed down.

PRICE, EACH, \$40.00.

“ P E E R L E S S ”

Quick-Acting Stereoscopic Lenses

FOR PORTRAITURE OR VIEWS.

We can also furnish the following, either single or in pairs:

These lenses are especially designed for Stereoscopic Photography, and are so constructed that they will work well for interiors or exteriors.

They are particularly adapted for instantaneous work.

Diameter of Lenses, $1\frac{1}{2}$ inches; focal length, $3\frac{1}{2}$ inches.

By removing the back lens and substituting the front combination, a focal length of $5\frac{1}{2}$ inches is obtained.

They are supplied with six Waterhouse Diaphragms in morocco case.

PRICE, PER PAIR, \$25.00.

Imitation Dallmeyer Lenses

FOR LANDSCAPES.

PRICE, PER PAIR, \$17.00.

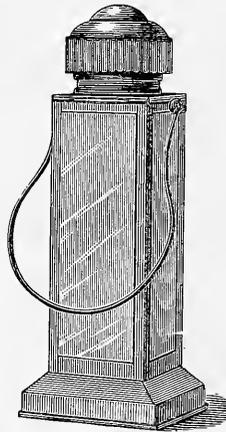
Undoubtedly the best Photo. Lenses yet produced. Amateurs will find these Lenses perfectly adapted to their use.

[See next page.]

THE SCOVILL DRY-PLATE LANTERN

PRICE, \$1.50 EACH.

Designed especially for use by the photographer or amateur in the dark-room, when developing plates and putting them in the plate holders. Guaranteed, when lighted and closed up, to throw out nothing but ruby rays. It has sixty-three square inches of glass, through which enough light shines to enable the occupant of the dark-room to watch the development of the largest size dry-plates made, and at the same time to see the chemicals and everything used in manipulation. The illustration here presented conveys a good idea of the lantern when closed.



In height the Scovill Lantern is a trifle over twelve inches, and is four and a half inches square. Each corner is protected by a strip of metal, which acts as a double safeguard. It not only prevents white light from the inside stealing out there, but it also keeps the four panes of ruby glass from any ordinary risk of breakage. For the latter reason the Scovill Dry-Plate Lantern is a great improvement over lamps with ruby chimneys, which, being unguarded, are so easily cracked or broken, and such a trouble to replace. In point of safety this lantern is infinitely to be preferred to a lamp of any style. By patented devices the top vent and the lower draft holes are so constructed that no white rays can escape through them, and thus the lantern is perfected for use in the dark-room.

SOME POINTS ABOUT THE NEW LANTERN.

It is readily extinguished.
It utilizes the entire wick.
It is not liable to crack the glasses.
It requires less than ordinary care to keep clean.
It is simple and easily understood.
It is not liable to get out of order.
It wants no skill, care, or attention in use.

It requires only to be kept in oil.
It gives at all times a symmetrical flame of maximum size.
It maintains a full and brilliant flame as long as the oil lasts.
It is easy to wick.
It is conveniently lighted.

For sale by Photographic Stock-Dealers, and the

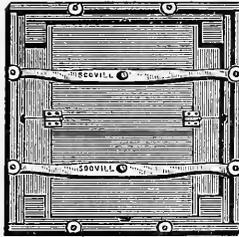
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W. IRVING ADAMS, AGENT.

419 & 421 Broome Street, New York.

December 1, 1881.

ATWOOD'S PATENT REVERSIBLE



PRINTING

FRAME.

This Frame is square, and just as it is shown in the accompanying illustration. It is made with double corners, and in utility combines the action of the regular and the lengthwise Printing Frames. The back also is square, with small blocks cut out to fit the corners, thus allowing the back to be placed upon the negative so that the springs and hinges will extend either lengthwise or crosswise of the subject. The advantage of this action will easily be perceived.

Suppose the negative of a standing figure to have been placed in the Atwood Frame and the back put in with the springs parallel to the length of the subject. Either half of the backboard can be opened and thrown over on the other, in this manner allowing such an examination of the print as to show a view from the head to the foot.

Again, in printing from a group negative the back of the Atwood Frame can be placed to open crosswise of the negative, thus giving an opportunity when examining the print of seeing all the faces.

In printing a landscape where cloud negatives are used, and the back has been set in the manner just described, it is possible to contrast the sky with the other features of the view on the print.

There is no reason why prints from two 5 x 8 negatives of different subjects may not be made at one time in an 8 x 10 Atwood Frame. Other good uses will be apparent, and we need not enumerate them. The back can be made to open two-thirds instead of at the centre where so desired and ordered.

PRICE LIST

ATWOOD PATENT REVERSIBLE PRINTING FRAMES.

Size for 1-2 negatives, each,	\$0 75
» 4 x 4 »	90
» 8 x 10 »	1 20
» 10 x 12 »	1 60
» 11 x 14 »	2 75
» 13 x 16 »	3 50

Supplied by Photographic Stock-Dealers, and

SCOVILL MANUFACTURING CO.,
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 NEW YORK.

W. IRVING ADAMS, AGENT.

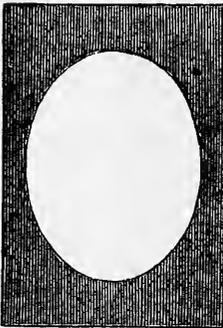
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Wherever you want to keep out Light, use Opaque.

It is applied with a brush, dries quickly and sticks.

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Are the very best that are made, and are now without a rival in the market. They are clean cut, most desirable shapes and sizes, and made of non-actinic paper, manufactured specially for the purpose. Each package contains 30 Cut-Outs, or Masks, with corresponding Insides, assorted for five differently sized ovals and one arch-top.

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No printer should attempt to make medallion pictures without them.

THEY HAVE NO EQUAL FOR QUALITY.

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Fromenade Size now Ready. Sold Separately at 50 cents per Dozen.

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The Keystone Plates have been worked this season under the most trying circumstances without frilling.

CARBUTT'S KEYSTONE "A" "B" and "J C B"

GELATINE DRY PLATES

Were awarded the MEDAL OF SUPERIORITY by the AMERICAN INSTITUTE for Prints from

"KEYSTONE GELATINE BROMIDE DRY PLATES."

PRICE—PER DOZEN.

3¼ x 4¼ inches,.....	\$0 80	5 x 7 inches,.....	\$2 10	11 x 14 inches,.....	\$8 50
4 x 5 ".....	1 15	5 x 8 ".....	2 25	14 x 17 ".....	12 00
4¼ x 5½ ".....	1 25	6½ x 8½ ".....	3 00	18 x 22 ".....	22 00
4¼ x 6½ ".....	1 60	8 x 10 ".....	4 50	20 x 24 ".....	28 00
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Full directions for use accompany each package of these plates.

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For Ground Glass for Cameras.

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All imitators have given it up. They can't make it. GIVE IT A TRIAL.

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Prepared with particular care, warranted free from acid, and very soluble. It has made its way steadily and surely into most of the principal galleries in the country, where parties prefer to make their own collodion, and its superior qualities are shown in the medals awarded at the Centennial, Vienna, and Paris Exhibitions for photographs made with collodion in which it was used.

It is especially adapted to the Rembrandt style, and light drapery. Its sensitiveness renders it particularly adapted for children or any work that requires short exposure, though admirable as well for all work.

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The height is three feet, the length five feet, and weight about thirty pounds.

I shall have other new accessories of beautiful designs shortly after the holidays. Also a fine line of new grounds at bottom prices.

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A. LIEBERT.

PARIS.

PORTRAITS BY
ELECTRIC LIGHT
(Emulsion Negatives)

Boston Public Library.

T H E

Philadelphia Photographer.

EDITED BY EDWARD L. WILSON.

Vol. XIX.

MAY, 1882.

No. 221.

OUR PICTURE.

As the landscape season approaches, our readers will be turning over in their minds the subject of the new emulsion plate for outdoor work, and as this is the age of object-teaching we bring them another example of outdoor work, the first of this year given, printed from the emulsion plates direct. The negatives were made for us by Mr. William H. Rau, of Philadelphia, during his tour last October in Colorado and New Mexico. The plates used by him were Mr. Carbutt's "Ordinary Keystone" brand, using the six-inch Morrison lens, now so popular for landscape work. The negatives were printed by the ordinary formula with no unusual care, for no unusual care was required to secure from them the results which are before you, and which we believe to be equal to the best wet-plate results which could be had under similar circumstances. During his trip Mr. Rau made almost two hundred exposures, and developed his plates after his return to Philadelphia. We believe, as the record stands, only three of these were found to be damaged by any error of exposure, the rest being all satisfactory in every respect. The subjects were exceedingly interesting, both historically and as works of art and beauty, and therefore some description of them will be found interesting. These we gather from notes made by Mr. Rau during his trip, and which have been prepared as

lantern readings since his negatives were made, principally for the purpose of manufacturing lantern slides from them. If our readers are interested in this subject also, we shall be glad to send them a catalogue of all the series of pictures, with the entire readings thereon.

We have used to print our edition for this month four negatives, and the subjects are named in the readings below. We trust they will be found both useful and interesting to our readers as pictures, and of value to them as results from the new emulsion process. It seems like folly for any one in these days to go into the field burdened and freighted with wet-plate apparatus when so much lumber can be dispensed with, and the work done so much more expeditiously by the use of emulsion plates. There is no reason now why any photographer may not manage them since the development has been reduced to the simplest kind of an operation, and the results are even more certain and regular than by the old means. The points were made on the "Pensé Eagle" brand of paper imported for us by Mr. G. Gennert, New York, and sold by all dealers. It is a most excellent paper, and all one could desire.

THE READINGS.

62. *Pueblo, San Juan, from the Church.*— This is one of the most interesting pueblos in the valley. It is the centre of the very richest portion of New Mexico, and in the

olden times, during the Spanish occupation, was the source from which emanated the great revolt which expelled the invaders from the country for twelve years. The pueblo consists of rows of two- and three-story adobe houses arranged around squares or plazas. The dwellings are all built of mud-colored adobes, or sun-dried bricks, and are arranged so as to inclose a plaza, or public square. The walls are from two to four feet in thickness, and the roofs are of timber covered with dirt a foot or more in depth. The usual manner of entering these dwellings is by ascending a ladder outside the building to the roof, and through a hole descending to the interior by another ladder; though some, as a very modern improvement, have doors cut through the side walls. This method was doubtless adopted as a defensive measure during troublesome times, when it was often necessary to convert the pueblo into a fortress from which to repel hostile invasions. Large clay ovens, shaped like the snow houses of the Esquimaux, are seen on many of the roofs, which arrangement may also be attributed to the fortress-like character of the dwellings.

Their lands are fertile, and produce abundant crops under the industrious cultivation of the Indians, the men only working in the fields on ordinary occasions. A large "acequia madre," or main irrigating canal, having its source some miles further up the river than the pueblo, runs along at the base of the slope to the "mesa," from thence distributing the water for irrigating the fields, by means of smaller acequias, and also furnishing the water for domestic purposes to the pueblo.

65. *North Plaza, showing Church.*—A good general view of the church and plaza, or burying-ground, can be had from the top of the houses immediately in front of it. Unlike the nomadic and warlike tribes, the inhabitants are self-supporting, raising crops of corn, wheat, pumpkins, melons, red pepper, beans, apples, plums, peaches, grapes, and apricots.

66. *General View, showing Church in the Distance.*—During September and early in October they harvest and husk the corn, and in this picture especially can be seen immense quantities of corn.

70. *Caretta, Pueblo, San Juan.*—They use a clumsy cart called a "caretta," the wheels of which are cut out of solid blocks of wood, and mounted on a very heavy axle, the tongue being upheld by a yoke fastened to the oxen's horns, upon which the whole strain of the draft is thrown in the absence of bows. The caretta-axle is never greased, consequently it gives out a fearful screeching noise when in motion. The Pueblos (town Indians) manufacture a very peculiar pottery, and many odd trinkets that will attract the attention of the "Americanos," and meet with a ready sale. They have also large numbers of horses, mules, donkeys, cattle, sheep, and goats.

ALPHONSE POITEVIN.

OUR readers are already aware of the death of this most distinguished scientist and inventor; one who has achieved immortality, and who in so doing has shared the lot of many like himself, in giving to the world his best and receiving as his reward the consciousness of having benefited humanity, and made a name for himself, and little or nothing besides.

The opening paragraphs of this month's letter from our correspondent and friend, M. Léon Vidal, give so much that is of interest concerning M. Poitevin, that we almost feel relieved of the necessity of adding any further notice. Still, just as we sympathize to the full with those of his near kin who are left behind, so we may spend a few moments in running over the following prominent points of his career.

Alphonse Poitevin was born at Conflans in the year 1819, and entered the central school of arts and manufactures in Paris, in 1840, graduating with high honors in 1843. He then took charge of some extensive salt works in the capacity of chief engineer, followed after a time by the same post in an establishment of manufacturing chemistry, this in turn being followed by a close application to the reactions of light upon bichromatized mucilages, and the obtaining of impressions in fatty inks. This lasted for fully two years after his removal to Paris in 1850. The patents secured upon his discoveries were disposed of for the sum of

20,000 francs, and, together with a descriptive publication, won him a prize of half that amount. Meanwhile, having entirely abandoned his position of engineer he found himself compelled to resume it in the year 1869. Some idea of his great attainments may be had, when we read that he successively from this date filled the posts of directorship of three important glass works, a lead mining company, and an alum factory. He now, at a somewhat advanced age, received the gratification of being made chevalier of the Legion of Honor by the French government, and won a number of prizes varying in amount from 2,000 to 12,000 francs, as well as the grand medal from the international jury of the exposition of 1878.

A reference to our correspondent's letter, however, will show that these sums have not sufficed to leave M. Poitevin's family properly provided for, and that schemes are under way to try to remedy the deficiency. And we feel safe in saying that the best monument to which subscriptions could at present be made, is that of caring for those who are the only ones that can not be said to have benefited by his great discoveries.

ECHOES FROM THE ORIENT.

CAIRO, February 11th, 1882.

Now, indeed, the Boolak Museum extends up the Nile as far as there are tombs and temples of old to be excavated and protected from the ravages of time, and vandals less "antique." For it has become the policy of the government of the Khedive to preserve all traces of the past greatness of this country, and to keep intact upon their native soil all that pertains to them, instead of allowing them to be carried away to swell the stores of the foreign museums. To aid in this praiseworthy work, the Boolak Museum, at the suggestion of the lamented M. Mariette Bey, was founded, and everything connected with old Egyptian history was placed in his charge for preservation therein. All others were forbidden to excavate or to dig away the ancient tombs and temples, and as a result the finest museum of Egyptian antiquities in the world exists, where it

properly belongs, at Cairo, on the banks of the Nile, close to the grand records in stone whose history they prove.

The museum building is a beautiful one, but it has already been found too small for the demands made upon it for space, and large additions are being joined to it at present. When these are finished it will indeed be an institution worthy of its founder and those who now care for its maintenance, and worth many times what it costs to preserve and protect it. Each year the interest in Egyptology grows, and the Khedive well understands that the desire to examine and understand the *old* which his domains include brings a great deal of wealth to his country which would otherwise never reach here at all. Like the Venetians, then, whose *life* is in the decayed remains of their former glory, so here, a great deal of the *living* of Egypt springs from the debris of the past.

Entering the gate of the museum one bright morning, I was met by my old Centennial friend Emil Brugsch Bey (whom thousands of Americans have pleasant recollections of, obtained while he had in charge the wonderful exhibit of the Egyptian Government at our exhibition of 1876), and given every facility for study, work with the camera and general enjoyment. We entered the beautiful garden together, and at our left, in a grove of palms and acacias and roses and other fragrant flowers, was the plain but imposing monument erected over the remains of M. Mariette. His more elaborate monument was close by—the museum itself. Entering this, the eye and mind are at once bewildered at the sight of the wonderful collection gathered there, and the fact is pressed upon one that no time must be lost if anything like a satisfactory impression is to be obtained of the general collection. With many, Egyptology is considered to be a dry study—all marrow for the mind—all the sweetness for the scholar pressed out of it long ago. But how can this be so, when so much of the enlightenment which we now share is due to the men who once stood at the head of the world in the arts and sciences and in literature? Much of true enjoyment can be derived from the study of these stone pages if one

will but take the time to examine and to understand them.

WHAT THE MUSEUM CONTAINS.

Here are collections of religious, funeral, civil, historical, Greek, Roman and Christian monuments, in such abundance as is to be found at no other place, all telling tales of the past which are full of romance, poetry, philosophy, and fact, depicted in such widening colors as will lead on and on the one who is so fortunate as to allow a taste for them to grow upon him.

It may at first seem ridiculous to see the mighty king of a great nation permitting himself to be handed down to posterity with his own body displaced by that of an animal, but when we know what instruction he intended to give by such a course we are impressed with his wisdom. We may laugh at the fear displayed by men who were brave and strong and valiant at having their mortal remains disturbed, pending the resurrection, and snicker at the expense undergone for mummy cases and monuments, and look upon a mummy as a subject for joke, or a hand or a foot of one as an amusing addition to our bric-a-brac collection, but when we understand that every mummy is an evidence of the sincere faith which the person whose remains it represents had in his religious belief, it becomes a matter of solemn interest and a subject for careful study and thought. We may look upon the sometimes rude, but always spirited, inscriptions in stone upon a temple wall or column—upon a sarcophagus or a tomb—as being on a par with a circus advertisement, but when we are sufficiently enlightened to understand that they tell either of the brave deeds or the kindly acts of some nature's nobleman of the past, and that from them we may learn lessons in charity and goodness, we are low down in the scale of goodness ourselves if we do not learn to feel an admiring interest in them.

So I have no fear of those who may scorn me if I say that the several days I was privileged to labor and study at the Boolak Museum were days of great enjoyment, and enabled me to store up much material which will aid me in future studies and work.

BRUGSCH BEY.

I may not go into all the details. Colonel Brugsch gave me every facility to secure whatever I desired, showing, as he does, the wish that our American friends may become better instructed in a line which is now too much of a dead-letter to them, and which may render them so much pleasure. He is himself an enthusiast in this matter, and for a dozen years labored with Mons. Mariette in his researches, excavations and restorations. He is still connected with the Boolak Museum as secretary, and the hardest worker and most devoted lover the institution could have in such a capacity. He ought to be in America at the head of some museum of antiquities, where more could enjoy the results of his labors, for the same amount of energy and work which he devotes to the cause here for the few thousands who annually visit Egypt could be made to give pleasure and instruction to millions in a country like ours.

I may not go into the details of what is to be seen at the Boolak Museum, for they are too extensive. The most exquisite sculpture, the earliest specimens known of wood engraving and wood carving, lovely bits of terra cotta, tastefully wrought jewelry, jewels and gems cut with rarest skill, engravings in stone of the highest finish, gildings and paintings as fresh as the day when they received the last touch of the artist, thousands of years ago, wood carving and metal work of splendid design, portraits in stone which seem to smile and speak, so expressive are they, polished images of syenite and granite, and hundreds of articles for household, and artistic, and religious uses are gathered here, all carefully labelled, arranged, and catalogued.

THE NEW FIND.

The greatest interest, however, centres just now about the rich collection of articles recently brought into the Museum by the pluck and perseverance of Brugsch Bey, and popularly known here as the "new find." The articles are not now arranged as they are to be, but pending the construction of the new rooms which are to contain them they are huddled together in

the end of the central room of the principal Museum Hall. The collection is an exceedingly rich and valuable one, and already much has been given concerning it in our American newspapers, together with much pertaining thereto which did not in the least concern it. This last was the case, because so soon as the arrival of the collection at the museum had taken place enthusiastic correspondents called, and even before Colonel Brugsch himself had had time to find out what his "new find" included, "authentic lists" were sent out to the world. He has kindly supplied me with a correct list and I give it to you, with some brief points in addition of such information as can now be had concerning the objects found. The richest portion of the find consisted in the mummy cases and mummies of some of the oldest Kings, Queens, Princes, and priests of ancient Egypt. It was a strange sight, indeed, to stand there and look into their dark and shrivelled, but still expressive faces and to see the care which had been taken to preserve them. I will name them in the order in which they stand here:

1. King Raskenan, of the seventeenth dynasty the last of the "Shepherd" kings.

2. King Amosis I., the first king of the eighteenth dynasty, which began to reign 1530 B. C. It was he who drove the "Shepherds" out of the country, governed Egypt alone, and became the "Lord of the Upper and Lower Country." With Amosis, too, began the reign which produced the line of kings to whom we are indebted for the great buildings which have for so many centuries been the wonder of the world, and but for which this letter would never be written. His temples and statues were models for the Grecian artist to whom we now look for our best inspirations in that direction, and the mighty monoliths which he caused to be made now excite wonder in cities and countries (our own included) which were unborn when he was king. His love for country and zeal for religion were inherited by his successors, and they went on with the wondrous work inaugurated by him.

3. Queen Nofritari, the beloved wife of Amosis, whose mortal remains repose in an immense sarcophagus, highly decorated in gold and colors, said to imitate and yet as bright and polished as on the day the offering of love was let down into the tomb and hidden in the cave underneath.

4. King Amenophis I., first king of the eighteenth dynasty. It was during his reign that the great chain of tombs on the Western Theban hills were constructed, and by means of whose sculptured walls we first learn of the practice of embalming the dead.

5. Siamon, the royal son of King Amosis I., about whom history gives us nothing.

6. A coffin belonging to the major-domos of the Queen Sonon formerly, but afterwards used for the Queen Miritamon.

7. A coffin containing the mummy of the Queen Sitka.

8. Queen Houttimhou, sister of Amenophis I.

9. Queen Mashouttimhou.

10. Queen Aah-hotep, of the eighteenth dynasty.

While but little has yet been found about these particular ladies, we have much from history which tells us with what consideration they were generally treated. That they were respected must be true, because they were often allowed to assist their priestly husbands in their religious duties; that they were necessary was undoubtedly the fact, because their state and dignity was maintained by the setting apart of certain national revenues for their use. For example, the large income of a royal fishery was allotted for the expense of her perfumes and toilette to one queen, and the taxes of a great city were added to find her in sandal strings; and that they must have been beloved by their husbands is equally true, because if the King desired to borrow money to enable him to battle with his enemies, the wife and mother, and daughter as well, were often required as hostages pending the return of the loan. And here are the remains of several of these goodly women, still neatly folded in the same delicate cloths that tender, loving hands placed about them thousands of years ago, the bands at their waists and their feet and their necks and about their head still tied in the same graceful bows of old, and showing forth the beauty of their forms with touching care. The tender lines of these queenly forms, some of them quite petite, gave proof that much of grace and beauty was covered there and they are still beautiful to look upon.

11. The coffin of King Thotmes I., he who enlarged the great temple at Karnak, and who set up the great obelisks there, which still stand in as good order as on the day of their unveiling. Iron came into use during his time and the quarries at Syene were made to give up their wealth by this mighty and useful ruler.

12. The coffin and mummy of Thotmes III., who was but a boy when he became King, about

1445 B. C. On his mummy was found a linen cloth of exceedingly fine quality, with long funeral inscriptions praising the good qualities of the King.

13. The coffin of Rameses I., of the nineteenth dynasty. Little is known of him except a few data sculptured on his tomb near Thebes.

14. Coffin of Sethi I., father of Ramses the Great. He was of the nineteenth dynasty, and therefore ruler at a time when our own religious history becomes most interesting. His temple is at Abydos.

15. Rameses II., the great Sesostris of the nineteenth dynasty, and doubtless the greatest of the Egyptian kings. Under him Egypt rose in arms, in arts, in wealth; temples were built, palaces piled up, the great hall of one hundred and thirty-four columns, forty-seven feet high, at Karnak, were added to the temple; the obelisks at Luxor were of his construction, and besides these many other colossal statues and smaller works of great interest. He fought in Palestine for his rights; purchased chariots and horses of Solomon; developed the mines of Sinai; had the great rock temple at Ipsamboul cut from the mountain and fronted with four colossi of himself in company with the gods; did uncounted and unaccountable things, and was the father of a family whom sacred writers became familiar with.

16. King Pinotem, of the twentieth dynasty, lies next, and by his side lies all that remains of

17. Queen Notemit, of the twentieth dynasty.

18. Coffin and mummy of the high priest Pinotem, whose withered face is yet full of expression, and whose photograph was carefully made in various positions.

19. Queen Tiouhathoy Houttooni follows, but of her I can learn nothing.

20. Another high priest—Mashaviti.

21. Queen Ramaka and her baby daughter, Moutemhat, in one mummy case, an exceedingly touching sight. The face of this queen is a beautiful one.

22. Queen Triwkheb.

23. Chanteuse d'Ammon Ra Taouhirt.

24. The priest Nebseui.

25. Princess Nessikhousou.

26. Prince Toptahbewoukt, son of Rameses II., in the coffin of another person named Nrishounopi.

27. The mummy of a gazelle.

28. A colored leather tent.

29. 3400 small blue enamelled funeral statues.

30. Several funeral chests.

31. Over a dozen very curious and large ceremonial wigs, with long, soft curls,

32. Four papyri, one of which is most beautifully colored and perfect, and belonged to the Queen Ramaka.

Thus a complete list is given you, and so much space does it take that I must close with a brief account of how these treasures were found, and where and when.

HOW THE TREASURES WERE FOUND.

The place was at Thebes, in a cave near the side of a cliff, looking, from the Nile, like the Palisades, near Dayr-el-Bahree, on the 5th of July, 1881. I accompanied Colonel Brugsch to the place and have bowed my head in the very cave, crept on hands and knees through the long, dark cavern which leads to it and been let down the well to reach the cave up which the royal "find" was hoisted. Eleven years ago or more Messrs. Brugsch and Mariette knew of the existence of these antique treasures, for they saw in different hands the small statues and other objects belonging to the time of King Pinotem. They could not detect, however, the person who held the knowledge of the whereabouts of the mummies, etc. The whole thing remained a secret until after the death of M. Mariette and the appointment of Mons. Gaston Maspero as his successor—Director of the Museum—and then Brugsch Bey found the men at Luxor who held the guilty knowledge. They were accused, but, refusing to tell, were arrested and imprisoned. Both liberty and reward were offered them and further punishment threatened, but Messrs. Maspero and Brugsch were compelled to return to Cairo defeated. Mons. Maspero then departed for Paris. Meanwhile, the brother of the principal prisoner expressed a willingness to reveal the family secret and to show the place. On July 1st our intrepid friend Brugsch, singly and alone, departed for Luxor again, was shown the hiding place, and next day had 250 Arabs employed excavating or digging out a filled-up shaft, which was found to be over fifty feet deep and about ten feet in diameter, and which had been filled in with rocks to hide it. At the foot of this well was the entrance to the underground passage four feet high and one hundred and twenty-five feet long, which led to and ter-

minated in a cave fifteen feet in diameter and six feet high. This cave held the longed-for "antiques," of which I have given you a list. After the well was partly cleared a log was thrown across its mouth, block and tackle made fast, and by this means, first the rocky debris and then the royal mummies were hoisted from the place where they had doubtless been hastily placed by the thieves who stole them from their tombs—no one can tell how long ago. What a thrilling scene it must have been. The thermometer stood at 120°. The Arabs were all enraged at the finding out of their secret, and each one was angry enough to murder their brave commander did they dare strike a blow. It was not easy for one less enthusiastic than Emil Brugsch Bey to brave such odds or to trust his "new find" to men too ready to rob. It was an anxious time for him, for part of his treasure was at the museum steamer, part crossing the desert and part at the mouth of the well, while he, far underground, coerced the removal of the rest; but in twenty days from the time of his departure from Cairo he stood face to face with his treasures in the Boolak Museum. His courage and pluck gave him his success and made his museum rich. I thought of all this as he cheered me from below in the goodness of his kindest of hearts when I dangled in mid-air at the end of a rope from side to side of that rocky well, a half dozen Arabs at the other end whom I never saw before, and only a small "safety rope" about my waist. And when we all lay upon our stomachs at the mouth of the cave, wrestling with some inscriptions which M. Maspero had found upon the wall, succeeding at last in securing photographs of them, I could but admire the enthusiasm of such men of science as were my companions, who, with another friend are the only white people who ever stood there or who ever will, for the cave has now been filled up in order to prevent applications from tourists to visit it. When we all came up safely again, dusty and glad to see the blue sky once more, the party were photographed as though hoisting up the treasures of antiquity, and the Arab who dared to do right, the honorable Abdel-Rassout, stood nobly in the foreground,

while his co-workers formed a line along the rope whose last labor was to hoist up "us four and no more."

Very truly yours,
EDWARD L. WILSON.

ASSOCIATIONS AND CONVENTIONS.

THE traveller in modern Europe, if he turns his steps towards some of the narrower and older streets of the historic cities he visits, will often stop perforce, and allow himself to be quite overcome with pleasure when he first sees a "guild-house" dating from some period of the middle ages or perhaps earlier. It not unfrequently happens, that such a relic of past times stands alone in the midst of a row of new, dirty, or commonplace buildings, which serve the double purpose of carrying on certain of the necessities of daily life, and adding, by contrast, to the picturesque effect of the grim, bizarre, or even comical pile which stands there as perhaps the only one of its kind to be found in the neighborhood.

The peculiarities of its architecture, and the quaint quotations cut into its walls or cross-timbers, take his curiosity captive and may, or may not, release it again when he has learned from his guide-book or cicerone that it was built and owned by an association, confraternity, society, or guild of the representatives of some trade, profession, or calling, no matter what.

If the traveller should inquire further into the history of the old building, he will find that even in earlier times, when means of intercourse between places and persons were far less easy than they now are, and when in short our much praised "modern improvements" were entirely wanting, that still the members of the various trades and professions were shrewd enough to see the advantages of union amongst themselves, and that they could scarcely fail to better themselves by joining hands and working together for the common good; in fact there is scarcely a city or large town in Northern Europe where we may not find one or more such buildings, or at least the record of its having existed.

But we do not propose to raise antiquarian

dust in the faces of our readers, nor to lead them through tedious histories of the trade associations of past days. We simply mention such a matter in the hope that it may remind some of those who might think of the now rapidly approaching convention at Indianapolis as a new scheme, and one unworthy of consideration or confidence, that it really is not so, if looked at from the right stand-point. How manifold are the advantages of such an institution as the Photographers' Association of America. Think of the opportunities afforded of coming to some general understanding on the all-important question of prices; and how much more is likely to be effected by the determined and concerted action of a recognized body of men, than by any number of feeble remonstrances written to magazines and papers. Think of the useful outgrowths from the organization which are already in hand, and only need the countenance of those most personally interested (strange to say) in order to become assured successes. We allude to such movements as the Mutual Benefit Association, and the proposed Association of Stock Dealers. The value to the practical photographer of being able to see the work of others, as we said in our last number, is hardly to be esteemed too highly; but even if we were to look only at the selfish or mercenary side of the matter, we would find ourselves far better off as members of a respected and widely known National Association, whose professed object was good to all, than we should as relying only on our own strength and denying ourselves those supports easily to be had if we only so willed it. We use the word "National" and shall continue to do so, in spite of certain efforts which we hear are being made to divide the Association.

We see no good to come from such a move, but on the contrary much harm. Even if a few private interests were to be better served, the great object—the good of all—would undoubtedly suffer. An association such as the P.A. of A., should be at once National and American in character, irrespective of distinction as to North, South, East, West, or anything else. We feel most keenly upon this point, and again urge the necessity of keeping together.

The manual of the P.A. of A., containing its constitution and by-laws, has reached us, and we will conclude by reprinting from it such matters as are of immediate interest. But let us first say that our columns are open to all communications that can in any wise advance the true interests of the organization.

THIRD ANNUAL CONVENTION AND EXHIBITION.

THE CONVENTION will open at 10 o'clock A.M., Tuesday, August 8th, and at 10 o'clock A.M. on each succeeding day for three days. The morning sessions will be devoted to addresses and legislation; afternoons to informal meetings, social chats, and practical demonstrations.

Tuesday evening will be occupied by an informal social meeting at the Hall.

Wednesday evening a Stereopticon Exhibition will be held. Members are invited to bring slides to be used on this occasion.

Thursday evening the members will participate in a grand banquet, to be given by the Association.

On Friday morning the election of officers, to serve for the ensuing year, will take place.

WEDNESDAY EVENING.—Art lectures illustrated with slides from the most noted works of art by the great masters.

Mr. William H. Sherman has kindly consented to select subjects and slides from thousands of negatives in his possession, being copies from the Italian, Flemish, German, Spanish, French, and English Schools, etc. Also illustrated lectures by others, on modern artistic posing, lighting, and arrangement of accessories, etc.

PHOTOGRAPHERS are requested to send or bring with them a few slides made from their negatives, illustrating posing, lighting, and artistic composition.

While the pictures are on the screens, their merits and demerits will be open for discussion.

THE EXHIBITION will embrace photographs from dry-plates as well as those of the wet process, and by comparison all will be able to see the great beauty of the dry-plate work.

BE IN TIME.—If possible, forward exhibits in time to reach here two or three days before the 8th of August. The 7th will be Monday, and on that day it is hoped that the entire exhibit will be in place, and ready for the Convention Tuesday morning. Be in time!

DRY PLATES.—Representatives of the several

bromo-gelatine plate makers will be in attendance, and demonstrations in the development of dry plates will take place each afternoon.

PHOTOGRAPHIC EXHIBITS.—It is highly recommended that all pictures shall be exhibited without frames or glass. If tissue-paper is used liberally in packing, they will not injure by transportation. Prepay the charges and send by express to the Secretary. On the reverse side of the cover have the name and address of the owner, so that when the pictures are returned, the package cover being properly marked, will not be mislent. The receiving clerk will number each package and the same number on the back of each separate picture.

An experienced person will superintend hanging and placing the pictures in the best manner on the screens. A conspicuous card bearing the name and address should accompany each exhibit. Those who would like to exhibit only a few pictures can bring them in person, and have space allotted for their display. If pictures are shipped in a wooden package, fasten the cover on with screws.

APPLICATIONS FOR SPACE to exhibit photographs should be made to the Secretary, and should be made early. State the number of square feet required, and space will be allotted.

BACKGROUNDS.—A large amount of wall space, in good light, will be reserved for the display of backgrounds.

STOCK-DEALERS and manufacturers are earnestly solicited to make displays of their goods. Photographers want to see all the new styles. No charge will be made to dealers and manufacturers who are subscribers to the expense fund. Make application to the Secretary for space. It is believed that abundance of space can be furnished for all. Tables will be provided for the use of stock-dealers.

HOTEL ACCOMMODATIONS.—Bates' House, 150 rooms; elevator; electric light; corner of Washington and Illinois streets: \$2.00 a day for all rooms above parlor floor; will be headquarters for the officers during the Convention. Occidental Hotel, 150 rooms; corner of Washington and Illinois streets: \$1.50 a day. The Brunswick, 75 rooms; Circlestreet: \$1.50 a day. Pyle House, 60 rooms; corner of Ohio and Meridian streets: \$1.00 to \$1.25 a day.

Furnished rooms in residences centrally located, at 50 cents and \$1.00 a day. To secure these rooms, write to the Secretary or apply at the Secretary's office, in Masonic Hall.

The hotels named have made liberal reductions from regular rates to the members of the Pho-

tographers' Association of America. In addition to these there are two large and elegant hotels, and a number of smaller ones.

There are also numerous restaurants, many of which serve meals at 25 cents.

MEMBERS should be prompt in keeping their dues paid up. The names of those who have not paid dues for the current year will be dropped from the list, as provided in Section 4, Article 2, of the Constitution.

EVERY PHOTOGRAPHER of good character is solicited to become a member of the Photographers' Association of America. Dues, two dollars a year. Remit two dollars to the Secretary, and fifteen cents in stamps to pay for roller and postage on certificate of membership.

THE CERTIFICATE OF MEMBERSHIP is a beautiful and appropriate phototype, and will be an ornament and a credit to hang in any gallery.

WOMEN.—The Society is proud to number among its membership ladies who are successful and enthusiastic photographers. May their number increase!

ONE of several small rooms attached to Masonic Hall will be appropriated entirely to the use of ladies attending the Convention.

A CHANCE FOR AN INVENTOR.

BY R. E. WOOD.

ONE of the principal wants of the Pacific coast photographers is a properly constructed portable house. From Mexico on the south, to British America on the north, the majority of country operators are travellers, or tramps, as some of our eastern relatives seem inclined to call us, and at present there is nothing better than a tent, which has many disadvantages; in fact, is little better than the north side of a house. On this coast the movable gallery will be popular for many years; there are few country places large enough to permanently support one; there is more money in moving, and all classes, on account of the mildness of the climate, do so. It is a well known fact, that there is no feeling of uneasiness about it for business. Right or wrong, it is done, and will so continue, and the man who will invent and put upon the market a suitable portable house, by advertising in this journal, can make money. It should be as well adapted for the business as the new-style dining and sleeping cars

are adapted to that business; the right thing will take immensely. It should not be too cumbersome; ought to be in sections of suitable size to be easily handled by one man; all as near the same size as possible; so arranged as to be set up strong and substantial, with the least amount of labor.

There are certain kinds of water-proof building paper, light and durable, that could be inclosed in sectional frame-work, and I believe there are inventive Yankees who could set them up so as to answer the requirements. Let the walls be, say, seven feet high, take this as the standard; have all sections three feet by seven, for floor, roof, skylight, partitions for dark-room, etc., so that the whole thing could be packed in boxes three by seven, inside; safe to ship, and easy to handle.

Such a house, properly decorated and upholstered, size, twelve by twenty-one, could be sold at from two to three hundred dollars in considerable quantity. Without the skylight, and with suitable windows, it would be a taking institution with the wealthy pleasure-seekers, who take camping trips during the summer, and frequently erect cottages on the bank of some stream, or lake, or ocean.

PROCEEDINGS OF SOCIETIES.

PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.—Minutes of the regular meeting held Wednesday evening, April 5th, 1882. The President, Mr. Joseph W. Bates, in the chair.

The minutes of the last meeting were read and approved.

The Committee on Lantern Exhibitions presented a highly satisfactory report, which was, on motion, accepted, and the Committee discharged.

A resolution of regret for the loss which the Society has sustained in the death of Dr. George B. Dixon, and its sympathy for his family, was read, and ordered to be entered on the minutes.

The following gentlemen were unanimously elected members of the Society: Messrs. Joseph W. Griscom, Alfred C. Harrison, C. Hartman Kuhn, and Dr. Joseph H. Warrington.

The Secretary read a paper giving some points on instantaneous photography and describing a number of instantaneous shutters, samples of which were shown.*

Mr. Mapes, on being introduced by Mr. Wallace, gave an interesting description of some new apparatus of his own devising, in connection with the optical lantern. He showed an ingenious form of slide-holder which would, by a system of clamps and levers, always bring the slide in proper position, no matter what its length or thickness might be. Also a "back-pressure" or check-valve which would, in case of variation in pressure, prevent the gases from flowing back in the tubes. Also an adjustable connection to be attached to the metallic reservoir, and permit of easy and certain control of the gases to the lantern.

Mr. Wood read an interesting paper, in which he humorously portrayed the trials and tribulations of the novice in dry-plate photography.

Mr. Castner exhibited a number of heliotype pictures, illustrating the arrangement of the cameras and other apparatus used by Mr. Muybridge in his wonderful instantaneous pictures.

The Secretary showed an improved form of tripod top or head, fitted with a universal joint in order to more readily adjust and level the camera. This was formed of a triangular frame of brass, the centre of which, having a concave surface above and a convex surface below, was fitted with convex and concave washers, connected by a spindle, the upper end of it having a screw to fit the camera and the other a thumb-nut to operate it. These washers being of the proper curves, and ground to a perfect bearing with the frame, would adjust themselves to any position within an angle of 20°. By simply turning the thumb-nut the whole apparatus with the camera would be clamped solidly.

On motion, adjourned.

C. R. PANCOAST,
Secretary.

BOSTON PHOTOGRAPHIC ASSOCIATION.—The Association met at Mr. T. R. Burnham's Photographic Art Rooms, 581 Wash-

ington Street, April 5th, 1882. The meeting was called to order at 8.30 P. M. by the President, Mr. D. T. Burrill. The records of the previous meeting were read and approved.

The discussion of the last meeting upon the expediency of making extra charge for resittings, the fault not being that of the artist, was resumed.

Mr. Burnham displays a framed placard stating how different subjects take in a photograph, and a caution about arranging the hair, and that resittings will be one dollar extra, as in the first place.

Mr. Lovell, of Amherst, would like to do away with it, but does not see how it can be done.

Mr. Bowers, of Lynn, has made a practice of making a reasonable number of resittings when desired.

Mr. Metcalf made all the resittings that his customers desired, and said nothing.

Mr. Strout thought the nuisance might be done away with by concerted action.

A committee, consisting of Messrs. E. J. Foss, E. F. Smith, and H. E. Strout, was appointed to take into consideration the advisability of revising the By-Laws, and having more copies printed, and report at the next meeting.

Voted to adjourn to meet at the same place, the first Wednesday evening in May.

After the meeting, a half hour was profitably spent in examining samples of dry-plate work that had been brought for inspection and study. Negatives and prints were brought by Mr. M. W. Whitney, of Cambridge; also prints by Messrs. Burrill and Glines, and views by the same process by Mr. Lovell.

Mr. Burnham, being about to start on a European tour, exhibited some of his appliances for securing large views by the wet process during his travels, some of which were quite ingenious—such as *only Mr. Burnham* can construct.

He has a gallery well suited for the purposes of the Society, and they will doubtless secure it as a permanent place of meeting. A large room, well lighted, and stage with double reflector for lighting subjects

and tableaux. The Association wish Mr. Burnham a successful and pleasant trip.

H. E. STROUT,
Secretary.

ASSOCIATION OF OPERATIVE PHOTOGRAPHERS OF NEW YORK.—A regular meeting was held March 1st, 1882, President Coonley in the chair.

The Secretary again read his paper on the "Theory of Toning," supplementing it with some remarks on further experiments made by him to verify the opinions previously expressed. He found that dried chlorine gas acts vigorously upon the combination of chloride of silver, albuminate of silver, nitrate of silver, and nitrate of ammonia, as found on a sheet of silvered paper. Quantitatively he will, at another time, make a report.

He was not responded to by any of the members.

Mr. Du Lac spoke of the ammonia fog on gelatine plates. He holds that emulsion made with ammonio-nitrate of silver is more apt to produce fog than when made with plain nitrate. He cures fog successfully with terchloride of iron, and intensifies afterwards with mercury in the usual way.

Another meeting was held on April 5th, 1882, Vice-President Atwood in the chair.

The new officers for the ensuing year were installed as follows:

President.—A. H. Atwood, 707 Broadway.

Vice-President.—James L. Forbes, 17 Union Square.

Secretary.—Thos. W. Power, 487 Eighth Avenue.

Financial Secretary.—Charles B. Shaidner, 244 E. Eighty-Second Street.

Treasurer.—J. S. Coonley, 707 Broadway.

The subject discussed was the testing of silver solutions that contained impurities, on which Mr. J. Traill Taylor read a very interesting article, in the course of which he exhibited and explained the accuracy of Siles' volumetric test, and also the actinohydrometer. It was contended that the hydrometer is not always correct, and also, when the silver solution is pure they test

the same, but when the silver is impure they vary.

Mr. Ehrmann read an article on subchloride in connection with his theory of toning.

CHARLES EH RMANN,
Secretary.

PERTAINING TO THE



*To the Editor of the
Philadelphia Photographer:*

The manual of The Photographers' Association of America, containing the constitution and by-laws, list of officers and members, etc., etc., is printed and ready for distribution. Those wishing a copy are requested to forward their address to the secretary at Indianapolis, Ind.

The manual also embraces the programme of the convention, which is to be held at Indianapolis, August 8th to 11th, and gives information about reduced rates at the hotels to the members of the convention.

The number of members enrolled for 1881 is 675. The address of each one will be found in this little book. It is hoped that all will continue their membership and that the number will be increased to double the present list, so that the little annual messenger issued by the P. A. of A. in 1883 shall enroll a membership of 1200 or 1500.

ANNUAL DUES!

Please remit the annual dues \$2.00 (employés \$1.00), to the secretary early and give him a chance to keep his record in good order and avoid the confusion liable to occur if left until the time of the convention.

Those who have not received a certificate of membership are requested to inform the

secretary, and forward fifteen cents additional to pay for rollers and postage.

JOHN CADWALLADER,
Sec. P. A. of A.

*To the Members of the
P. A. of A., and Others:*

As it is the desire of the Executive Committee and the Officers of the Association, to make the next convention, which is to be held on the 8th of August next, at Indianapolis, a grand success, we hereby ask your kind co-operation towards the same. We should be pleased to have you make an exhibit of part of your very best production. As the exhibits made from cabinets and panels will be without frames this year, the photographer of medium circumstances is placed on equal grounds with his wealthier brethren, which, I believe, is a step in the right direction. Parties desiring to exhibit, will please inform our secretary, Mr. John Cadwallader, Indianapolis, Ind., as to the amount of wall-space required, etc. We also desire that you will favor us with a short and spicy "paper" on some "photographic topic," such as you believe will be of benefit to the Association. They should be written in a manner to bring out general discussion by the members. Parties intending to have papers will please inform me of the nature of their intended subject, so that when the convention opens, everything will be in working order and there be no delays.

We also desire that you bring along with you or send a few slides, made from negatives in your possession, that show the following qualities: 1st, perfect harmony of composition, and arrangement of subject; 2d, the reverse qualities, showing inartistic arrangements; they are intended for a lesson, and much benefit will be found therein. It is to be hoped, that quite a number of our members will attend to this valuable feature of our artistic Lantern Exhibition, which will be held on Wednesday evening, the 9th of August. Please inform me "who" will assist us with the required slides.

A small manual, containing the constitution and by-laws, with general news, also list of membership, is now ready for dis-

tribution. By sending name and address to our secretary, a copy will be sent.

Our treasurer, Mr. Beebe, requested me to remind the 675 members of the Photographers' Association of America, that the annual dues be now paid.

Fraternally,

JOSHUA SMITH,
Prest. P.A. of A.

PROPOSED INTERNATIONAL ASSOCIATION.

To the Photographers of the World:

The resolution adopted in this city by the last Convention of the "Photographers' Association of America," and consequent appointment of a committee looking to the establishment of a grand international society of photographers, is the occasion of this appeal to the fraternity at large, both in this and the Old World.

The purposes to be effected are of a character so laudable and desirable that their excellence becomes evident on a mere statement.

It is greatly to be regretted, but, unfortunately, true, that the profession has been impeded in its progress and in the full unravelment of the possibilities of its art by a feeling of jealousy among its members. Whatever tends to eradicate this feeling—to create a spirit of brotherhood—must inevitably result in incalculable benefit, not alone to the photographer as an individual, but also to his art, and, through it, to mankind at large.

The first steps in this praiseworthy direction have been taken; the photographer the world over has begun to recognize that each is not sufficient to himself; that something may be gained to him by a comparison of the methods and results of his neighbors; that which the individual cannot effect, the united efforts of the fraternity will accomplish.

Local organizations of photographers have done, and are doing, much for the advancement and development of our art, but their efforts are, and naturally and necessarily must be, confined in their limits, hampered in their operation.

Photography is a universal art, not confined to one locality or one nationality, but broad as humanity, as undefined as

nature, and her votaries should be united in a bond as complete, as grand and liberal, as unrestrained and unlimited. This object we seek to attain, this union of the efforts of our profession, an interchange of benefits, a dedication to the fraternity of what each has gained for himself, an enlargement of the scope and utilization of the art, a truer and more perfect recognition of the position and merit of the photographer by the outside world.

To co-operate with us in this effort we ask of all, wherever located; to those who have seen and know the advantages of local and national associations, we expect that you will heartily and enthusiastically lend your aid and the benefit of the experience you have gained in that direction. But to the photographer remote from such organizations, we say that you, as well, can aid in this great work—you, as well, will profit by it.

Photographers! ours is an art of which we should be genuinely proud; it is the only, the true, art preservative. Who will refuse his co-operation in placing that art yet higher, in securing for it the recognition it deserves, the estimation to which it is entitled, in developing to the utmost its wonderful resources, in uniting the brotherhood throughout the world, regarding not race or climate?

Very fraternally yours,

D. N. CARVALHO,

New York City.

Chairman of Committee on Formation of an International Society of Photographers, P. A. of A.

By sending their names and addresses to the chairman of the committee, as an evidence of their adhesion to these objects, photographers will most practically and effectually aid this movement.

An expression of views as to the best methods of attaining these ends is cordially invited.

MR. HIRAM J. THOMPSON, of Chicago, contributes fifty dollars to the funds of the P. A. of A.

WILSON'S *Photographics* should be read by every progressive photographer.

INSTANTANEOUS SHUTTERS.*

BY CHARLES R. PANCOAST.

WITH the introduction of photographic plates having a high degree of sensitiveness, and the consequent desire for rapid exposures, comes the possibility of making pictures of moving objects in such a small space of time as to depict them, as it were, stationary. To do this requires a mechanical contrivance by which the light admitted to the camera through the lens can be controlled.

Having always had a predilection for instantaneous photographs, and having experimented largely with wet collodion with only passable results, I was among the first to employ gelatine plates for this purpose. My first experiments with these were made some two years ago, but not having the proper appliances, were far from satisfactory. They demonstrated to me, conclusively, that in gelatine the instantaneous worker had found a boon. Since then, I have devoted considerable time to the subject, and will give you this evening a description of some of the apparatus necessary.

Regarding lenses, I might say that any lens giving good definition and moderate depth of focus, and having stops as large as $f7$ or $f8$ will answer perfectly. My experience has been that for marine views a stop of $f10$ is sufficiently large, while for animal and landscape studies stops of $f7$ and $f8$ are better suited, the ratio between the stops $f7$, $f8$, and $f10$ being as 49, 64, and 100.

Without entering into a discussion as to the proper position in which an instantaneous shutter should be placed, I consider that the best effect will always be obtained where the shutter is situated directly in front of the plate, as then, during the brief time in which the light is acting, the lens can do its full work. Such an arrangement would require an especially constructed camera, and be at once cumbersome and inconvenient.

Of the shutters which are attached di-

rectly to the lens, I will make three classes, namely, drop, flap, and rotary.

The simplest of the drop shutters consists in having a slot cut through the lens mounting, directly in front of the stop, in which a piece of sheet metal having the proper shaped opening can pass entirely through. This is open to the objection that, aside from mutilating the lens mounting, there is no way of controlling the exposure. I have constructed a form of drop shutter, which is attached to the front of the lens, and in which I have endeavored to overcome nearly all the faults inherent to shutters of this class.

This shutter is constructed on the drop principle of Col. Stuart Wortley, and consists of a wooden frame, having at the edges two rabbeted strips, these with the frame forming a groove, in which a hard rubber slide fits neatly, yet sufficiently loose to move with perfect freedom. At one end of the frame is a circular aperture, equal in diameter to that of the lens. A wooden block attached to this frame, and fitted with a set screw, clamps the shutter to the lens.

At one side of the frame is a lever, one end of which being pivoted to it, the other engages on a pin in the slide. Near its fixed end is attached a spiral spring which, acting through the lever, gives the slide the requisite impetus, depending on the tension of the spring.

At the bottom of the frame are two springs, one of which takes up the jar of the slide, and the other automatically locks it, to prevent any rebound.

To afford a quick and certain method of releasing the shutter, a pneumatic trigger is provided, consisting of a brass case, in which is a flexible rubber diaphragm. A small rubber tube connects this case with a rubber ball; this, on being compressed forces the diaphragm against a lever, which frees the sliding shutter.

This pneumatic arrangement is made in a careful manner, and so very sensitive that the slightest pressure suffices to make the exposure.

From the description of this shutter it will be seen that it is adapted to work equally well in either direction, horizontally, or at any angle; the maximum

* Read before the Photographic Society of Philadelphia, April 5, 1882.

rapidity, however, being attained when it is placed vertically.

In all drop shutters operated by gravity alone, the slide in falling will have a constantly accelerated motion, hence the foreground receives less exposure than the sky. This can be avoided, in a measure, by using a spring to operate the slide which will gradually lessen in strength as the slide moves. In many cases it is desirable to shield the sky, especially when cloud effects are wanted. This may be done by an auxiliary sky shade or having a shutter like the one I have just described, in which the slide has a triangular-shaped opening, and is caused to move horizontally. An ingenious form of shutter described in the *British Journal of Photography*, accomplishes this end in a novel manner, but which has a serious defect in construction which will undoubtedly give rise to a jar at the moment when the lens is wholly uncovered. This apparatus consists of a disk pivoted at one side and connected by a toggle joint to a weight or spring in such a way, that the pull of the weight or spring will raise the disk and immediately lower it. The sudden reversal of motion when the disk has attained its maximum height must certainly tend to shake the instrument.

For small lenses, the double-flap shutter designed by Mr. Partridge is one of the most convenient, and in some respects superior to the drop. For stereoscopic work it is without a superior, as both lenses are exposed alike.

Rotary shutters must necessarily be made large and cumbersome, and have, I think, few good qualities in comparison with those before described although many good results have been obtained with them.

One fact I have noticed which, I think, has an important bearing in making photographs of rapidly moving objects. It is, that where the shutter moves in the same direction as the object, a much sharper picture will be obtained than if it moves at right angles to the line of motion. For this reason a shutter capable of working in any direction is preferable to a simple drop.

The rapidity of an instantaneous exposure is largely dependent on the rate at

which the object is moving. This can readily be approximated after a little practice, and enables one to form a better idea of what exposure will be required. As a rule it will be found that so-called instantaneous exposures will range from $\frac{1}{10}$ th to $\frac{1}{60}$ th of a second.

For example, the image of a vessel moving at the rate of 10 miles per hour, at a distance of 500 feet from the camera, would, in the $\frac{1}{10}$ th part of a second, have moved about $\frac{1}{200}$ th of an inch on the ground glass (supposing the lens to have a focal length of 8 inches). This would be sharp enough for all practical purposes. If this same vessel was moving at the rate of only 5 miles per hour, then the movement of the image would be $\frac{1}{400}$ th of an inch.

As it is very desirable to measure the rapidity of an instantaneous shutter, I have devised a piece of apparatus which will answer the purpose, and give practically correct results. It consists of a revolving disk of white card-board, having a broad black line drawn from the centre to the circumference. Surrounding this disk, but stationary, is a scale graduated in feet and inches. The whole apparatus being placed in a strong light, the disk is made to revolve at a known rate, and a photograph made of it with the shutter whose rapidity is desired. The exact amount of movement will be shown by the line on the disk, which will be blurred for the distance it has travelled during the exposure. For example, a disk having a circumference of 10 feet, being caused to revolve once in a second, would give a point on the periphery a movement of 10 feet per second. If the exposure was $\frac{1}{40}$ th part of a second, the black line referred to would be blurred for 3 inches, as shown by the scale.

INSTEAD of boiling the gelatine emulsion, Eder recommends now to keep the same warm at from 56° to 64° R., for two to three hours, then twelve to twenty-four hours at 24° to 32° R., for digesting. This method lessens the danger of fog as compared with the ammoniac method. Two-thirds of the gelatine is retained and added only when the digesting process is finished.—*Wochenblatt*

ANSWERS TO QUESTIONS TO THE CRAFT.

1. What has been your experience with emulsion plates? Are you having success with them, and what advantages do you find in their use?

2. What have been your failures with them, and what the causes thereof, and what the cure?

3. Do you think they will ever enable you to discard the bath and collodion?

4. Do they place you in the way of producing more artistic work?

5. How do your patrons like the resulting pictures?

6. Are your patrons more appreciative than formerly?

7. What are the prospects for business during 1882?

8. Any further hints for the good of our co-workers, will you kindly add them?

In answer to your questions I will say:

1. My experience with gelatine emulsion plates extends back through the last three years. During that time, I have manufactured plates and used them, together with the popular commercial brand, both indoors and out, and I think I am very well acquainted with the nature and character of the article. I have had as good success with them as anybody I know of, and am able to depend upon them for all of the work there is in them quite certainly. The only advantage I find in their use is in cases when the time required between placing the plate in the dark slide and its development is so great that a wet plate could not be used, and occasionally, perhaps, on account of their superior rapidity.

2. My failures with them, in their manufacture and use, are chiefly from the impossibility of getting an even, uniform film over the whole surface of the plate when dry, especially when the glass is slightly warped. This defect is common to all of the commercial plates, and of itself necessarily compels the new process to rank second to collodion for *business* purposes. As a *play-thing* it is no great objection. There is no cure for the defect, as it is constitutional.

3. They will never enable me to discard the bath and collodion, for the reason that they are not capable of producing so uniform and fine negatives as collodion.

4. They certainly do not place me in the

way of "producing more artistic work." Why should they? The negatives obtained being inferior to collodion negatives, as all who are acquainted with both processes know them to be, they place their habitual users on the sure road towards poorer and *less* artistic work.

5. My patrons generally are not nearly so good judges of the comparative merits of the resulting pictures as I am, and I never seek their opinion. I never use a gelatine plate when it is possible to use a wet collodion one, and I therefore am not under the necessity of trying to convince them of the absurdity that a poorer picture is better than a better one.

6. My patrons are much more appreciative than formerly, so much so, in fact, that I find it pays me to take the utmost pains, at all times, to do the best possible with all orders they confide to me, even though more effort and trouble on my part may be necessary to do so.

7. The prospects for business during the coming year are most excellent indeed.

8. The bromo-gelatine dry-plate process bears the same relation to the wet collodion process, that carbon does to silver printing. Only a few years ago, in the *minds* of many silver printing was "doomed." A similar "doom" is now being conferred upon collodion and the bath, and the end will be about the same. Collodion and gelatine resemble very much, the old farmer's "near" and "off" oxen. When asked one day why he was always praising the "off" ox so loudly, and saying nothing about the "near" one, he replied, that the "near" ox was "good enough without praising."

JAY DENSMORE.

NILES, MICH.

REFERRING to article in the April number of the *Philadelphia Photographer*, I should say that the gelatine dry-plate process is going through much the same evolutionary process that the wet collodion process did, and, I might add, that all new processes of equal importance have. We all remember when it was thought a fatal mishap for a single ray of sunlight to strike the silver-bath. Well, we don't think so *now*; and there will be the same change of belief in

regard to the ruby light, though, probably, not so radical a one. Now, let me tell you my experience with dry-plates, which is very short, as I have only worked them a month or two. When I ordered the dry-plate outfit, of course I bought ruby paper (it is now for sale cheap), but the light was so unsatisfactory, that after a few plates I thought I would try something else. My light for wet-plates is about ten square feet of yellow tissue-paper, three thicknesses, pasted over a light wooden frame, and receives light from the operating light, twenty-five feet distant. So I merely had another light frame, with two thicknesses of tissue-paper, made to work with cord, weight, and pulleys—screw eyes, I should say—to lower when working dry-plates and raise when working wet. Like Mr. Taylor, I can see to read easily when the extra frame is down, and no signs of fogging. Further, to-day, in making a cabinet group of small children, in my hurry I forgot to lower the extra frame until I had put my plate in the holder. There! said I, that plate is "gone up," but went ahead and exposed it, and presto! no trace of fogging. So, I say with Mr. Taylor, "throw away your ruby light."

Have thought for some time of writing this to the *Philadelphia Photographer*, as I think it will be a great boon to those who are straining their eyes, and *feeling* their way with ruby light.

Now, there is a large number of good photographers, perhaps four-fifths, who like myself have been reading for the last two years, in a careless way, about gelatine dry-plates, but thinking it a tedious, difficult, and impracticable thing, and that it would not pay for the trouble and expense of trying—perhaps, like many of the much-lauded processes, a humbug. If such will listen, I can tell them how to work successfully, from the start. Procure a first-class plate—I use Cramer & Norden's—study the directions which come in each box and then *work according to directions*, except the ruby light, and you can make pictures of babies when you could not get a shadow with wet-plates; also work on dark days from sunrise to sunset. Get a dozen small plates and try, and, my word for it, you

will not be without them. It is worth the trouble, just to see the wonderful depths in the shadows, that you could not touch with wet plates.

Very truly, yours,

IRA F. COLLINS,
Huntsville, Ala.

PROOFS FROM PORTRAIT NEGATIVES.

THE custom of giving proofs from negatives to sitters is a universal one among photographers. Scarcely less universal is the worry, annoyance, and loss of time, consequent upon resittings, often necessitated by the sheer caprice of the customer in regard to position, expression, or paltry matters of toilet. Every professional portrait-taker is so familiar with this that it scarcely needs alluding to. We heartily wish that it was in our power to propose some plan or compromise by which both sitter and photographer could save each other unnecessary labor and trouble, but this is manifestly impossible when we consider the varying conditions of photographic business at different times and places, and the peculiarities alike of artist and subject.

The following table contains the gist of an article recently published in the *Photographic News*, on the subject of proofs and resittings, and we have felt that it might interest our readers to compare the customs at home with those abroad. We seem to be somewhat better off in this respect than our English cousins, who (as seen below) frequently issue not a proof, but an elaborately finished print from the retouched negative. No wonder, then, that many complain of "thankless tasks," "energy wasted," etc., and it is surprising to see this plan urged by some as the best business policy, proved by an experience of thirty years. Others, again, pursue the common custom of this country in sending out either a roughly finished print, with the word "proof" stamped upon it, or simply an untuned print, although, as seen in the table, the proportion is not more than two to seven. One firm in London writes to the effect that the proofs are of no value in themselves, that their charges are for the time and labor involved in making the nega-

tive, just as in the case of a doctor or lawyer, whose fees are not for the paper upon which their professional opinions are registered, but for the brain-work bestowed. This seems to us rather a Quixotic idea at best, and really not a tenable one, besides being an unfair comparison—unfair particularly to the printer, upon whose skill and taste much of the beauty of a finished photograph must depend.

The advantage claimed for the issuing of a finished proof is that customers, not understanding photographic technicalities, will be apt to give a better order if finished prints are submitted to their inspection, and that while very few copies are ordered from a negative that is not liked, a very full and liberal reward is reaped from one giving perfect satisfaction.

On the other hand, the advocates of the "proof" proper, or unfinished print, claim that the customer can receive it on the same day on which the negative is made, and that here frequently time is of great importance, and further, that the vast majority of resittings are demanded by those who would not appreciate a finished print any better than a proof, and who are dissatisfied not with the *technique*, but with such points in the picture as we mentioned at the beginning of the article.

Out of twelve communications, there were,

In favor of finishing the prints from a retouched negative, and charging them, when kept by the customer, at the full rates, . . .	7
Of resitting once, if desired, free of charge, . . .	6
Of demanding payment for all proofs, . . .	3
Of giving no proofs at all, . . .	1
Of making a small extra charge, at the time of making the negative, entitling resitting until satisfied, . . .	1
Of issuing rough proofs, . . .	2
Of setting no value on the proofs, . . .	1

Some expressions of opinion on this matter from Boston photographers will be found in the minutes of their Association, on page 139.

"I received *Photographics* in due time, and am more than delighted with the book; it should be in the hands of every photographer.

"E. SPENCER,

"FORT COVINGTON, Franklin Co., N. Y."

FOREIGN ITEMS.

HENRY SCHRIEVER, of Hamburg, in recommending a cheap developer for dry-plates, in the *Deutsche Photogr. Zeitung*, remarks: That it has been found that through the ferrous-oxalate developer the bromogelatine plates become much dearer than is claimed by the manufacturers and dealers. Yet the quantity of oxalate of potash prescribed in the ordinary recipes is not at all necessary, and if it is treated with only one-half or two-thirds of common saltpetre (nitrate of potash), exactly the same results will be obtained at a materially reduced cost. For use he keeps all three solutions, saturated in the cold, and filters of each as required. For developing, he uses

Cold Saturated Solution of Salt-petre,	40 c.c.
Cold Saturated Solution of Oxalate of Potash,	20 "
Cold Saturated Solution of Sulphate of Iron,	20 "

FRITZ LUCKHARDT, in the *Photographische Archiv*, gives us the following résumé of his method of retouching. "The varnish which I use for retouching I make myself from the following ingredients:

Alcohol,	300 parts.
Gum Sandarac,	50 "
Camphor,	5 "
Castor Oil,	10 "
Venetian Turpentine,	5 "

I retouch with the brush as well as with the pencil, for with the judicious use of a camel's-hair brush, beautiful effects can be obtained on negatives, and I think the brush just as indispensable as the pencil. I took some portraits, the other day, with a totally white background, and I scratched with a needle—you would call it "shading"—all around the head, or the whole figure, so that the portrait had a certain artistic appearance. As this is done upon quite white ground, much effect may be obtained with this shading. It only takes about fifteen minutes for me to retouch a plate in this manner, and a skilful retoucher will, no doubt, do it in less time."

ABOUT two years ago Mademoiselle Sarah Bernhardt conceived the strange idea of

having her portrait taken, lying at full-length in a coffin edged with white silk. Monsieur Mélandri, a Paris photographer, was charged with the execution of this duty, which was all the easier from the fact that the model simulated very successfully the immobility of death. The *cliché* was without reproach, and Mlle. Bernhardt was fairly enchanted with its success.

"Now, I will make a bargain with you," said the artiste; "promise me not to dispose of a copy till after my death."

"After your death!" exclaimed the photographer.

"Oh! that will be sooner than you think for; I engage to die within a twelve-month."

"You are joking."

"No, it is a presentiment I have, and presentiments never fail me. Moreover, if in a year's time I am still in this world, I authorize you to print as many copies as you like, and sell them at any price you please."

The photographer consented to the strange compact, and for the space of a year not a single print went out of his studio. But Mlle. Sarah Bernhardt had no intention of carrying out her promise; she remained as lively as ever. Tired of waiting, Monsieur Mélandri wrote to the celebrated actress that she had not carried out her contract.

"A little patience, please," was her reply; "as soon as I have carried out my engagements in America I will certainly attend to your little matter."

Another year passed, but without result. Monsieur Mélandri wrote again to Mlle. Sarah Bernhardt, telling her that since she had failed to keep her promise, he was no longer obliged to abide by his, and that he should put the coffin portraits in circulation at once. Mlle. Bernhardt hastily telegraphed that she had promised to create three new rôles in Paris, and that when she had done this, no obstacle in the world should prevent her executing her terrible promise. This does not seem to have suited Monsieur Mélandri, for he has now brought an action before the *Tribunal de Commerce*.

Such is the history of the latest eccentricity of the famous Ex-Sociétaire of the *Comédie Française*.—*Photographic News*.

SOME HINTS ON THE WORKING OF DRY PLATES.

BY THOMAS CHARLES.
(St. Catharines, Ontario.)

MANY are led to believe that the working of the dry-plate process is so complicated that but few can accomplish it. I can assure you such is not the case; I hold that the unsuccessful photographer by the old collodion process can, with very little difficulty, overcome all troubles, and be able, with but little practice, to produce negatives far ahead over the average of his very best attempts by the collodion process. I urge all who have not tried it to do so at once, and you cannot fail. You will soon make better work, and your business will increase rapidly by the use of them.

In your dark-room fix a cupboard which will fit light-tight, by having two folding doors (mine cost me but \$1 50); have it made, say 2 feet 6 inches long, 18 inches deep, and 15 inches wide; divide inside with four equal partitions to hold four dishes; let the two top ones contain saturated solution of alum, and two bottom ones saturated solution of hypo. You can now, with this arrangement, while your plate is fixing, or in alum, close the cupboard doors, open the dark-room door, and go about anything you have to do outside, while your negative is fixing. You will find this accessory just what you really want, and which answers all the purposes of a double dark-room. Being equipped so far, and having your supply of plates and grooved light-tight boxes, to hold 24 plates each, fill 1 dozen packages, 12 plates into the 12 grooves at your right hand, leaving grooves to left hand empty for this reason: After exposing, slide the exposed plate into far left-hand groove; plates to left-hand are exposed, and you can develop at your leisure. I find this a good plan. Now for making your own oxalate of potash cheap and easy: Get, say, 10 lbs. of oxalic acid, costing 16 cents per lb., and 10 lbs. of carbonate of potash, costing 15 cents per lb. I give you those quantities to show you how great a saving it is to buy in this way, and make your own oxalate of potash. Now take your 16-oz. graduate, have it clean and dry; fill it up to a level with the 16 oz.

mark with carbonate of potash, and have a 5-qt. jar at hand (mine is a glass spice jar), with wide neck; pour into it about 2 qts. water, and put the 16 oz., by measurement, of carbonate of potash into it; stir round with a stick until dissolved, then add a little at a time of oxalic acid, until it ceases to effervesce, and will turn blue litmus paper decidedly red, then fill up to 5 qts.; stir round; allow to settle, and decant as required. To develop, have a saturated solution of iron, to which a few drops of sulphuric acid have been added; take your tray and, if the weather be warm, fill it from the tap with cold water; let it stand until you mix your solutions; this plan helps to keep all cool, and prevents frilling during development; have a 2-oz. graduate for the oxalate solution and a 1-oz. one for the iron solution; now for a cabinet plate, pour 1 oz. of oxalate solution into the 2-oz. measure, and into the 1-oz. one pour 1 dr. iron; pour off the water from the tray; put in plate face up, of course; throw the 1 dr. iron into oxalate, and throw it over the negative at one sweep; if your time is right, it will fully develop in one minute; have a lamp burning behind your ruby light or a ruby lamp in your dark-room during development, when you can hold it up, and looking through the flame you can see exactly the intensity required; with a little practice you will be able to develop to just the right intensity, without any strengthening or reducing. Wash under the tap one minute; put into the saturated solution of alum; wash out your tray; wash out your graduates, and stand them upside down on a piece of perforated India rubber, so they will drain clean (wash this rubber under the tap daily); now take the negative out of the alum dish; rinse under the tap, and place in the soda solution; close the cupboard doors, and let it remain until cleared; wash under the tap for awhile; soak and change, or wash under running water for three hours; soak in a saturated solution of alum (fresh solution) for five or ten minutes; finally wash fifteen or twenty minutes; place in the rack to dry, and your negative may now be considered permanent. When the negatives are dry, write on the names, and varnish. Make your own varnish thus: get 25 cents worth of com-

mon red shellac varnish from any paint store, thin it down with three or four times its bulk of methylated alcohol; shake well; stand a few hours to settle, and filter through paper, and you have the hardest, brightest, and most damp-proof varnish on record. Always varnish cold; take the negative from the rack, flow over, drain off, and put back into the rack to set; you can this way varnish a whole day's negatives in very few minutes. I am a great believer in perfectly fresh solutions for developing, and I have given the proportion 1 in 8 as a good standard, although I often use 1 in 10 or 1 in 12. Have a good-sized square of a double thickness of thick black cotton, hemmed all round, kept in your dark-room, to cover the slide during transit to and from the dark-room, and while the plate is standing under the light; have this independent of your camera velvet. Now, another wrinkle, *keeping track of your negatives*; I use this plan: The next sitter comes in for cabinets, I enter the number in my book, say 41,200, leaving a space under the number for name and address, then write cabinet, $\frac{3}{4}$ -figure, plain, vignette, or whatever it may be; and when I take the plate out of the box, write on one end of the plate, close to the edge, the number and style of printing; this prevents mistakes occurring in the printer's hand; then dust off the plate, put into the slide, cover up well with cotton cover, carry under the light, and let it remain there while the sitter is ready. The pencil marks always remain good, and when the negatives are ready for varnishing, I scratch, through the gelatine, the name of the sitter, finding the corresponding number in my book; there can never be any error in that direction. I made my own dry-plate holders with pieces of backing boards, clear of knots. Now, if to fit an 8x10 to it, take an 8x10 piece of backing; cut out the size of plate, then lay this on another piece, grain reversed, and mark out the exact size of opening cut; cut this out, then take a third piece, and let the grain run up and down—same as first piece; mark out opening, cut this out also, but leave on the angular corners, to catch corners of plate; then cut off the outside corners sufficiently so as to let the second layer rest in

the kit; rivet the three pieces well together; go over with fine sand-paper, and finally coat with black varnish; this may appear a rough way, but, nevertheless, they are really good, strong, and perfectly reliable, and will last for years. If any of the above hints are of any use to the fraternity, I shall be very glad.

PHOTOGRAPHIC EXPERIENCES IN THE EAST.

BY WILLIAM H. RAU.

ABOUT a year ago, an American clergyman, who is an editor of one of our prominent religious journals, made a trip through the Arabian desert to Mount Sinai, Petra, and the Holy Land. Having since then concluded to issue a book of his travels, and wishing to illustrate the same with correct pictures of scenes and places he visited, he brought to bear his influence upon Mr. Edward L. Wilson, the editor of this magazine, and induced him to make the same journey, and to do the photographic work. Several prominent college professors had also urged upon Mr. Wilson the advantage of visiting the valley of the Nile, and adding views of it and its temple ruins to the desert journey, making also in Egypt a series of pictures for the lantern that could be used in colleges, and at the same time interest and educate those who are interested in architecture, archæology, art, and the picturesque. Knowing of Mr. Wilson's decision to go, I made arrangements to accompany him, while I was with Mr. Jackson, of Denver. I returned to Philadelphia early in November, when we began making very active preparations for our work. The journey having been decided upon, the next thing was to adopt the method of marking and making the negatives that would give the best results, and be the safest and most expeditious to use in the countries we were about to visit. Our time being limited, we were obliged to use that which was the most rapid, as we desired to make all the most interesting points and illustrate every place visited in a thorough manner. While on the Transit of Venus Expedition in 1874, I saw what an immense bulk was made of the chemicals and apparatus to make compara-

tively few negatives, also the great risk in carriage of the same. And having for the previous eight months had considerable experience with gelatine plates, I believed that the use of such plates would be the best for the work abroad. This method being adopted, our next work was to get everything together and packed for our long journey. To Messrs. Bell, Jackson, Buehler, and Carbutt we are indebted for many points which were very useful, and to Mr. Carbutt especially, who gave me much of his time whenever I called on him.

Trusting the many little things mentioned hereafter will interest some and assist others, who will be very soon starting out into the field of outdoor work, I will try to give our plan of working, together with every point in detail from the very beginning. I first made out as complete a memorandum of *everything* that I could think would be required, and carried this in my pocket, together with a blank block of paper on which I jotted down *at once* every new thought that would help, or any article overlooked in the first memorandum. The first things ordered were the plates, of which we selected two rapidities, viz., "Keystone" plates A and B, taking one-third B and the rest A. The more rapid for instantaneous and groups, the A for ordinary views, etc. I found the J C B almost too rapid for the lenses we had to use. We decided also to take a few "Beebe" plates, some of which promised very well on trial. Since Mr. Carbutt was to supply the plates, his advice was sought as to the best and safest method of packing. He counselled the use of wooden boxes to hold 50 each, the boxes to be specially made. These were next ordered. The boxes for the 5 x 8 plates were made 5½ inches deep, 5½ by 8½ square; the corners were slotted to hold a triangular piece of cardboard, on which the plates were to rest, face down, in the box, each plate being thus placed by the use of a pneumatic plate-holder; four cardboard corners were inserted between the plates, so that no part of the face would be touched, excepting, of course, the corners which were outside the margin generally used. The boxes were lined with black canton flannel, nap side out; the lid was telescopic, that is, it closed over the box

to the bottom, and handles were placed on the outside in such a position that the plates would always carry standing on edge. After the box was filled with plates, a soft pad of cotton batting and canton flannel was packed on top, the lid placed down snug, and a breast screw put in through the lid near the bottom into the box on each side, taking care to have the screws short enough not to penetrate to the inside. The first plate on the bottom rested on its corners on blocks a trifle above the bottom of the box. The boxes for the 8 x 10 plates were the same, only allowing an eighth of an inch above the size of the plate for margin. I hardly need state that these boxes were all made in the very best manner, light-tight, and strong, and varnished in every part not covered with canton flannel. The wood was poplar, three-eighths thick, and the corners were dovetailed. Glue was not depended on, as experience in dry climates has demonstrated that it does not hold. After the boxes were filled, a tag with the number and rapidity of the plates enclosed was fastened on each strap handle, the boxes were numbered, and the bottom crack around the lid sealed with black "needle" paper, fastened or held on with ordinary negative varnish, as paste would not hold. Tin boxes were made large enough for two boxes in each, the wooden boxes placed therein; the lid was now hermetically sealed by placing a coat of rubber solution (thick) around the lid and an inch below it, then coating strips of rubber cloth long enough to go entirely around the box with the same rubber solution, applying it to the gum side of the cloth. After it had set, the tin lid was pressed down hard, and then the rubber strips were attached, taking care to press down every part, and lapping the ends so that no air could get in. Then the boxes were lettered with a prominent and large letter, so as to keep a record of every case or box as used, etc. Leather cases, made of good sole leather, with extra leather corners, riveted with copper rivets and sewed in every part, were made to carry two tin cases each of the 5 x 8 plates, or one tin case of 8 x 10 plates. These leather cases were also numbered. Around each tin box was wrapped a piece of ingrain carpet, which

answered the double purpose of packing and giving an easy means of lifting them out of the leather case. Next in order came the cameras, tripods, lenses, etc. Our 8 x 10 camera is a model of strength and beauty, also the two stereoscopic cameras, all of which we had made with extra long bellows, and an extension bed that slips on and off very easily. The 8 x 10 box will focus full 26 inches, and the 5 x 8 full 14 inches. The corners are all mounted with brass sheets, not strips. Although at first I objected to the cam motion, I have found since that it was very convenient and not likely to get out of order. I will first give the points about the 8 x 10 camera. The front was made to slide higher than usual, and the back to swing a trifle more, although I have found that still a little more swing would have helped wonderfully in some of the narrow streets of Cairo and Alexandria. The plate-holders were made the actual size of the plate, a movable frame fitted in the back of the camera, on which the ground glass and plate-holders were in turn fitted, so that in making a vertical picture the whole of the movable frame was swung around. This not only made the holders more portable and lighter, but also gave the actual size of the picture, so that when focussing, all that was seen on the ground glass, which was 8 x 10 inches, was sure to come on the plate. This idea, I think, was originated by Mr. Carbutt. The holders, of which we had three, of 8 x 10 size, were fitted in a box, but this was rather too weak, so we have a stronger one now, carrying the plates in a horizontal position, thus lessening the risk of the slides or partition slipping out. Every holder was numbered in a distinct manner over the slide, each slide having its own number. [I have since added brass catches and buckles for holding the slides and fastening the division that slides in between the plates.] Several extra fronts were taken, besides those on which the lenses were mounted. Also several extra slides for the holders, and extra ground glass, a duplicate set of screws for every part. Finally, the holders were made of mahogany well seasoned, no pine or soft wood being used in any part. [I have thought since that a box could be fitted in the space which is usually

empty, viz., the inside of the camera; this box could carry extra lenses, screws, etc., and could be made so that it would not chafe or bear on the bellows.] Our stereoscopic cameras are mounted also with brass corners. The holders, of which we have 18, are all of mahogany and numbered. We have with us several extra stereo. divisions, in case of loss, etc., extra ground glass, extra screws, extra fronts, extra slides for plate-holders, and a bed-board for supporting the camera when making a vertical, single 5 x 8 view. The cameras, tripods, etc., were all made by the Scovill Manufacturing Company's and American Optical Company's works, and are as near perfect as it is possible to make them.

(To be continued.)

A VERY praiseworthy feature of the Indianapolis Convention, in August next, will be a renewal of the attempt made several times before, to bring together for consultation the dealers in photographic supplies, in order that prices in general may be discussed, and certain existing evils either corrected or modified. We understand that the movement is to have for its object a better understanding of the relations existing between the dealer and consumer, and *vice versa*; not however, for any purpose of combination of prices, many of the dealers having the strongest feelings against anything of this kind. Much can always be done by such trade associations in regard to the promotion of social feeling and the removal of jealousies, which go far towards lightening the labors of actual business. Our esteemed friend Mr. Gayton A. Douglass, of Chicago, is one of the prime movers in this scheme, which we hope may partake of the already assured success of the convention.

A NEW PHOTOGRAPHIC JOURNAL.—We have received the first three numbers of the *Boletín Fotografico*, a neat little monthly, published for the stock-house of Mr. D. G. Lopez, in Havana, in the Spanish language. The January number, after a courteously worded introduction, gives several very practical articles on such matters as gelatine

dry-plates, etc., etc., and an interesting historical retrospect of the art, which is continued, together with the gelatine article, in the February number, which contains various matters of general and practical interest. Our best wishes for the success of the new-comer.

OUR fellow-countryman, Mr. Muybridge, of San Francisco, is receiving the most marked attentions in England. His instantaneous pictures of horses in motion have been exhibited in the presence of royalty, and he has just been elected by the Savage Club of London to honorary membership.

RECTIFYING NEGATIVE BATHS.

The following letter has seemed to call for a fuller answer than usual; we therefore print it in order that the remarks given below may be more clearly understood:

"... In cleansing and strengthening a negative bath many operators first make the bath neutral by the injection of ammonia or bicarbonate of soda; then add nitrate of silver until the bath is of the proper strength, after which plenty of pure water is added and then boiled to the bulk desired, the boiling throwing out the excess of alcohol and ether, also the iodides and bromides, and causing many impurities to solidify and settle. When cool, the bath is filtered and made acid again. I desire information on this subject, if you can give it to me, through the *Philadelphia Photographer*, scientifically. Is the above the proper manner of proceeding, and which alkali should be used to neutralize? If the above is wrong, what is right? One of the best outdoor artists I have had the good fortune to meet, Mr. —, of —, does not neutralize at all. He reasons thus: The bath contains acid; an alkali is added to neutralize; the acid is still in the bath, though passive; then to acidify, more acid is added, the alkali still remaining in the bath, though overcome by acid. The process is repeated for every fifty or sixty negatives made. How are these properties —this alkali and acid—removed? Some in

boiling and filtering, the rest remaining in the bath, doing no good and *may* do harm. So he adds silver and water, boils, filters, and makes acid to suit, getting the right degree by trying a plate, never using litmus paper, and his bath works well. Please give me your comments on this plan."

Neither of the above methods seems to us the desirable one to follow in rectifying a negative bath. Let us consider what is the condition of a bath that has been used until purification becomes necessary, as compared with a freshly made solution in good working order. The old bath would be: (1) overloaded with ether and alcohol; (2) diminished in bulk and strength; and (3) it would contain a varying proportion of injurious substances called "organic matter" for want of a better expression, as well as an excess of iodide of silver. Plainly then, any method of purification to be effective must be one that will remove the ether, alcohol, organic matter and iodides, and make up strength and bulk; and by far the best one in our estimation is to throw down the silver in the form of carbonate, and, after a thorough washing, to redissolve it with nitric acid. (We will give full details how to do this further on.) The fact of the silver being in the form of an insoluble precipitate, capable of being washed, ensures a perfect removal of the ether and alcohol, and, although it may be possible that some of the iodides are taken up again by the nitric acid after being thrown down with the precipitate of carbonate of silver, still the solution will be found not to give any sign whatever of their presence, nor of the evils which follow. The organic matter, and probably a large proportion of the iodides remain behind in the form of a dirty, black, and insoluble mud, which may be easily filtered out, leaving a clear, neutral solution of pure nitrate of silver, which can be used at once after bringing it to the proper strength by the hydrometer and acidifying as usual. If the bulk be short, the proper amount of fresh crystallized silver and water may be added.

Boiling a bath is not by any means as efficient a manner of purification as it is generally believed to be. There is nothing

in an old solution coagulable by heat alone, so that, unless the bath was thoroughly sunned after being neutralized, the organic matters would remain after the boiling. The bath should be diluted previously and thoroughly filtered *before the boiling*, if this plan must be followed. Adding fresh silver and water before boiling, and then filtering, as referred to in the letter above, is a most erroneous plan, and the fact of the solution working well after this messing has been gone through with, proves nothing one way or the other. It is absurd to put fresh silver into a solution already foul and awaiting purification. Neither can we understand what is meant by "acid being present in a passive condition." This is carrying things too far, for the solution must be either acid, alkaline or neutral, and the question of what chemical function is performed by a substance not capable of responding to any known test may be very properly dismissed from an article of this kind, and, at all events, the infinitesimal quantity of a new compound formed by the neutralization of a bath (either with acid or alkali) might be disregarded. At the risk, then, of being somewhat tedious, let us repeat that if a bath is to be boiled the operations should follow each other thus: (1) neutralization, preferably with bicarbonate of soda; (2) dilution, thorough sunning and filtering; (3) boiling nearly to dryness; (4) making up to the proper strength; (5) filtering and acidifying.

The precipitation method is carried out as follows: provide a large, strong bottle or jar capable of holding four or five times the bulk of the bath to be purified. Filter the bath into this jar and add a sufficient quantity of a filtered saturated solution of bicarbonate of soda to precipitate the silver. It will require quite a large quantity of soda to do this, and as there is violent effervescence, care must be taken not to add too much at one time, and to shake well between each addition. When the silver is all down, allow it to settle, and draw off the supernatant water with a siphon (a yard of India-rubber tubing, one end inserted into the bottle and the other sucked with the mouth till the fluid flows, answers very well). Fill up the bottle with water,

shake, allow to subside, and draw off as before. Repeat this half a dozen times or more, and finally add nitric acid very cautiously until the precipitate is *not quite all dissolved*. At this stage of the process the solution will look black and muddy; throw it on a filter and test with litmus paper; it should be neutral. Then add water enough to make the strength right, and acidify.

A bath so treated is really a *new bath*, and will be found to work perfectly. It is best to conduct the whole process by yellow light, and it is presupposed that the water for the washing is pure and soft, or at least the same kind of which the bath is to be made. If the water is hard, the last three washes may be made with distilled water or melted clean ice. Each filtration must be done through a fresh piece of paper. Two thicknesses of the ordinary gray kind may be used.

GERMAN CORRESPONDENCE.

Remarks on Instantaneous Shutters—On the Chemical Action of Yellow Light—On New Actinometers or Sensitometers—New Style Photography in Colors—Instantaneous Pictures by Obernetter—Restoring the Ferrous-Oxalate Developer—Gallic Acid for Intensifying Gelatine-Plates.

MR. QUIDDE, the first Secretary of our Society for the Advancement of Photography, made an interesting communication on the action of instantaneous shutters, the apertures of which are of different shape. He gives the following diagram. Fig. 1 shows a shutter with a circular aperture of the size of the objective. Fig. 2 shows a shutter with a square aperture, the depth of which corresponds with the diameter of the objective, and Fig. 3 shows a shutter, the aperture of which is wider on the margins than in the centre. The distance from *a* to *b* is equal to the objective diameter, and the radius of the circular arc *c a d* and *e b f* equal to that of the objective aperture. If the three boards are moved with the same degree of rapidity, the time of exposure, in regard to the vertical diameter of the objective, will be identical for all three boards, for all three have to move the same distance,

but the effect of the light differs very much with all three; a moment occurs in which the whole objective is free, the effect of light being in consequence the same with one as with the others, but this is only for a moment; in every other position a very

FIG. 1.



FIG. 2.

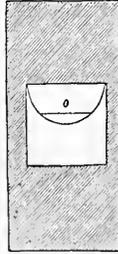
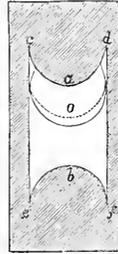


FIG. 3.



material diversity is manifested, which becomes more marked at the beginning or conclusion of the exposure.

In the above diagram the moment is represented when the top edge of the aperture has arrived in the centre of the objective opening. In Fig. 1 we see less than half of the objective aperture *o*; in Fig. 2 we see exactly the half, and in Fig. 3 more than half of the objective aperture. The difference is shown in a still more striking manner just before the conclusion of the exposure, as indicated by the dotted lines. One can easily calculate in this manner that the effect of light of the three shutters in Figs. 1, 2, and 3, with equal movement and all other circumstances identical, stand in the same relation as the superficial contents of the respective apertures, which is approximately expressed by the relation of the numbers 11, 14, and 17, to each other. The latter form of shutter is, therefore, the most advantageous, for it exposes the margins of the picture which have relatively less strength of light, longer than the centre. Both other forms expose the margins of the picture too short a time. There are also shutters in which two boards with circular apertures pass by each other. Here, again, the centre of the objective has the advantage over the margins. The shutter opens in the centre, the aperture enlarges towards the margins until it has reached its highest possible extension, when it is shut all at once again from the margins, so that in case the aperture of

the shutter is not larger than the objective, it may be said that the time of exposure of the margins of an objective is almost too short to count at all. As in consequence of the introduction of highly sensitive plates instantaneous shutters come more and more into use, these indications are of special interest for practical men.

It is a well-known fact, that not only blue and violet light, but also yellowish-green and red light are photographically effective; which fact is not so readily seen in the common photographic preparations. The other day, however, I discovered a substance which shows its sensitiveness to yellow light in a very marked manner, the same being a mixture of the solution of nitro-prusside of sodium with sulphide of sodium (Na S_2). This mixture is of a fine blue-violet color which soon pales in the light. If the colored solution is diluted so much that it becomes transparent, and one-half of it is exposed to the light, while the other half is kept in the dark, a few minutes will suffice to show the bleaching effects of the light on comparing both halves, and that it is the yellow light which acts here; bleaching is readily proved by filling a test-tube with the blue-violet liquid, and immersing the same in a solution of chromate of potassa, which admits in the main only reddish-yellow and some green, but no blue light. Yet, the nitro-prusside solution bleaches, in this instance, almost as quickly as in the open air. Of course it acts the same way in lamp-light, but in a blue bottle it does not bleach. When operating with this solution, a dark room with blue panes would be necessary, just the reverse of what is required by photography. I may remark here that the nitro-prusside sulphur combination bleaches also in the dark, owing to the oxidation of the air; very slowly, however.

Among the various new forms of apparatus, which become more necessary than formerly with the introduction of the highly sensitive dry-plates, there are the so-called "Sensitometers." One of the best known is that by Warnerke, which consists of a semi-transparent scale of figures made by the Woodbury process—the transparency of the scale

decreasing by regular degrees from 1 to 24. Under this scale the plate to be tested is exposed a certain time. The manner of exposing is remarkable. Warnerke employs for it a normal light, that is, a glazed pane coated with phosphorescent paint. Before the same two and a half centimetres of magnesium wire are burned, then the whole is left undisturbed a minute, when it is placed upon the scale under which the dry-plate lies. Warnerke states that the light obtained thus is always uniform. I did not find this to be so, however, as the temperature acts in such a way upon the power of phosphorescence of this paint that totally different results may be brought about. So, for instance, I obtained with a warmed phosphorescence-plate upon an emulsion-plate the number 20; in the cold, however, only the number 19, making a difference of 25 per cent. The mere warmth of the hand increases the power of phosphorescence. It is further to be objected, that it is not possible to detect small degrees of differences of sensitiveness with the instrument; the smallest measurable difference is $1 : 1\frac{1}{3}$, *i.e.* 3 : 4, but among dry-plates of different kinds, differences of sensitiveness like 8 : 11 or 4 : 5, not rarely exist, and these cannot be measured accurately with the instrument in question. Furthermore, the yellow color of the scale is a drawback, for it modifies materially the quality of the light, as the blue rays are partly absorbed. For these reasons, I have constructed another sensitometer, after an idea published at least thirteen years ago by A. Taylor. The scale of this photometer is formed by a metal plate with holes. This plate covers a wooden block in which twenty-four cylindrical cells are drilled. Above the first cell one hole is made, above the second two, above the third three, and so on. Under these cells, the plate to be tested is exposed in a dark, slide-like contrivance, and it is obvious that the relative clearness under the different cells must be in exact proportion to the number of apertures made over the respective cells. When, therefore, two plates are exposed equally long under this instrument before an object uniformly illuminated, and then developed, it may be that one plate

will show the effect of light up to cell number two (with two holes), and the other up to cell number four (with four holes). With half the strength of light the same result was obtained with the first plate as with the whole strength in the second plate, and the first plate is therefore shown to be twice as sensitive as the second.

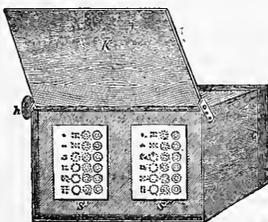
In order to clearly indicate how far the effect of light has progressed, a thin tin is fixed under the cells, in which figures are cut out to indicate the number of the holes made above. For exposing, I use a sheet of white photographic plain paper, which is drawn upon a board (B), which board is exactly 1 metre distant from the photometer (see Fig. 4), and which is lighted by a small window, about twenty feet distant, facing directly the sky, or

FIG. 4.



through an aperture in the studio protected with screens. As the strength of light of the daylight is very variable, even during the time of exposing of two plates, I use a double instrument, as shown in the annexed diagram, and in which the two plates can be exposed simultaneously (Fig. 5). Of course, the plates are also developed simultaneously and equally long.

FIG. 5.



The temperature of the developer is of special importance. With a warm developer often three or four figures more are reached than with a cold one, and it is therefore necessary to keep the developer as nearly as

possible at the same temperature (66° Fahr.), which can be done by using ice in summer and warm water in winter. Of course, this must be done only when it is intended to compare the results of summer experiments with the results of experiments made in winter. If the two plates are exposed simultaneously, and also developed at the same time with the same developer, the temperature does not modify the results.

Recently, at the January meeting of the Society for the Advancement of Photography here, some colored photographs by Cellerier, of Geneva, were submitted, about the manner of production of which, some little doubt was entertained by the Society. The pictures made a very good impression. Now the particulars of the process, which comes from Bonnaud, have become known. A very weak print is made upon salted paper, fixed and washed. When dry, it is placed from two to three seconds in alcohol, dried again and hot-pressed (satinirt). The picture is then colored with vegetable colors with the India-ink brush, putting the color on without shading or making any nuances. Care must, however, be taken to have the colors brighter than they are to appear afterwards. The colors are not prepared with pure water, but with the following mixture :

Albumen, . . .	100 grammes.
Distilled Water, . . .	25 "
Pure Glycerine, . . .	25 "
Sal-ammoniac, . . .	5 "
Liquor Ammonia, . . .	4 drops.

The picture receives the colors easier if it is moistened somewhat and placed upon a glass plate. When perfectly dry, the picture is hot-pressed (satinirt) and again immersed in alcohol and albumenized on the following prepared bath : Albumen is salted with very pure sal-ammoniac—to each 3 eggs, 2 grammes ; furthermore, 5 per cent. of water, and to each 100 grammes of albumen, 4 drops of glacial acetic acid. The albumen is beaten to snow and left undisturbed at least eight days, when it is decanted. The picture is then carefully placed upon it for about one minute. It is dried by heat and silvered on a silver bath of 1 : 10, dried again, but this time not

by heat; then placed again in the printing frame of the original negative, whereby care has to be taken to hit exactly again the contours of the first picture. The picture is printed, toned, fixed, and washed as usual, and then has the photograph over the colors, which give the picture the coloring and shading.

The introduction of the modern dry-plates has facilitated very much the possibility of taking instantaneous pictures; in fact, such pictures are placed in the market now showing surprising sharpness and richness in detail. The most remarkable results I have seen of this kind are the photographing of the great procession during the festivals at Munich, by Obernetter, of Munich. These photographs were made with $\frac{1}{30}$ th second exposure and represent people and horses in full motion. Steinheil's new aplanatic lens, No. 2, the so-called aplanatic group lens, was used, and Obernetter states that many experiments have proved to him that no other lens was so well adapted to taking instantaneous pictures in the open air as the lens above referred to; in fact, in the pictures, the nearest foreground objects, as well as the most remote buildings, appear perfectly sharp. How sharp the original negatives really are, is shown by the fact that Obernetter makes from them enlargements which cannot be distinguished from original prints. To find the time of exposure of the instantaneous shutter, we proceed as follows: A second pendulum is hung before a white wall, then sharply focused, and after it has been put in motion it is photographed with the instantaneous shutter. It is obvious that the picture of the pendulum cannot be absolutely sharp, but must of necessity be more or less diffused according as the instantaneous shutter works faster or slower. From the range of movement of the pendulum on the one side and the width of its picture on the other side, a deduction may be drawn as to the duration of the exposure.*

The other day Dr. Lagrange published a good receipt for restoring old ferrous-oxalate developer. He used the iron powder, ob-

* Compare the remarks in Mr. Pancoast's paper on page 142.

tainable at any drug store, which reduces the ferric oxalate to ferrous-oxalate. If the developer has lost its strength through use, add to five hundred grains of liquid—

Oxalic Acid, . . .	15 grains.
Bicarbonate of Potash, . . .	15 "
Iron Powder, . . .	5 "

and place the bottle aside for a few hours, shaking it once in a while, when the clear liquid is filtered off from the undissolved iron.

For intensifying gelatine plates, pyrogallic acid comes more and more into use of late. The following solutions are kept on hand:

1.—Pyrogallic Acid, . . .	20 parts.
Distilled Water, . . .	1000 "
Sulphite of Soda, . . .	80 "
2.—Nitrate of Silver, . . .	1 part.
Water, . . .	16 parts.
Acetic Acid, . . .	$\frac{1}{2}$ part.

Before using, mix one part solution with four parts of water, and some drops solutions N. S. Before pouring the mixed intensifier upon the plate, it is of paramount importance to remove the fixing soda entirely, to prevent yellow or red fog. It is best to place the plate, after washing, for several minutes in a cold saturated solution of alum (about 1:10), and then to rinse well.

Very truly, yours,

H. W. VOGEL.

BERLIN, March 31st, 1882.

FRENCH CORRESPONDENCE.

Death of M. Poitevin—Gelatinobromide again: Process of Mr. Clement Sans and of Mr. Fernand Braun—Manner of Copper-coating Zinc Applicable to Dwers Photocopying Processes—New Process of Planographic Printing on Zinc, by Captain Biny—Developer of Mr. Bidon, for Gelatinobromide Plates—Revolver of Mr. Marey, for Reproducing Birds on the Wing.

POITEVIN, the inventor of most of the processes used in industrial photography and in the making of permanent prints, died at Confans, on the 4th of March last, in the sixty-third year of his age. This is a great loss to photographic science. The services that he has rendered to it are too

well known to the readers of the *Philadelphia Photographer* to render it necessary to enumerate them. But we cannot refrain, in announcing this painful event, to revert to the high claims of Mr. Poitevin to his original discoveries, which have placed a brilliant halo around his name, and made him worthy of taking a place alongside of Nicephore, Niepce, and Daguerre.

In looking over the work and notes of Poitevin, as we have just done, we are struck with the far-searching character of his mind. At once he reaches a result, and immediately points out the divers industrial applications of the principle discovered by him. It is thus that he has shown the quintessence of the results of his observations on the action of light on a bichromatized mucilage. Carbon printing, phototypy, photo-engraving, in raised or hollow lines, the woodburytype, photo-lithography, prints made with colored powders, all these were foreseen and clearly indicated by him. But he was not able to put into successful practice these various sources of industrial printing. It was sufficient to have brought them to the attention of practical men. He has sown the seed, and others have gathered in the harvest.

As is not unusual, our learned inventor, strongly taken up with his science and his discoveries, has neglected the money side of the question, and he reached the term of his career, so nobly filled, without the satisfaction of leaving his family with sufficient means of support. He has left behind a duty which his friends will not fail to accept, that of taking care of his children—a boy and three girls of tender age. A subscription is already being organized to erect in honor of Poitevin a commemorative monument, worthy of his name and merits, and it is understood that his family will not be forgotten.

A short time before the death of our illustrious friend, we had undertaken the joint editing of his unique publication, having for a title "*Treatise on Printing without the Use of Silver Salts.*"

This last edition, remodelled and completed by some notes of ours, is about being published by Mr. Gauthier Villars. It will

come opportunely to give a better knowledge of this work, so important in its results, and of the scientist who has just been taken from his country, from science, from his friends, and from his family, who is thus deprived of its only stay.

For two years back Poitevin's health had been undermined by the malady that carried him off. He fell a victim to softening of the brain, the certain sequel of a very laborious life, but one crowned with a success not possible for all workers to obtain.

There is not much to be said at the present time in regard to photography in France. So much progress has already been achieved, that but very slow advance is made towards new improvements. The question of gelatino-bromide still occupies the attention of our seekers and practical men. The formulas follow, but do not resemble each other. For some time yet it will be impossible to have a well-settled opinion upon the *ensemble* of the manipulations, and developing processes most to be commended. A very considerable number of these exist, and later, by taking the essence of all these formulas, it would be possible to deduce an average operation capable of giving the best satisfaction to operators. Now we have Mr. Clement Sans, who says that he obtains remarkable results in sharpness, modelling, softness, and depth of shadows, without encroaching on the whites, rapidity, and finally absence of fog, by preparing the gelatino-bromide in the following manner:

No. 1.

Rain Water, . . . 50 c.c. (1 fl. oz. 5 dr. 31 min.)
Bromide of Potassium, dry, . . . 3 grms. (46 grs.)
Bromide of Ammonium, dry, . . . 2 " (31 ")

After solution,

Nelson's Gelatine, No. 1, . . . 2 " (31 ")

No. 2.

Rain Water, . . . 20 c.c. (5 fl. dr. 25 min.)
Nitrate of Silver, fused, 8 grms. (123 grains.)

No. 3.

Rain Water, . . . 10 c.c. (2 fl. dr. 42 min.)
Carbonate of Soda, . . . 0.4 grms. (6 grains.)

Dissolve Nos. 1 and 2 over a water-bath, and when two solutions are ended, make

them alkaline by adding 8 c.c. (2 fl. dr.) 10 min. of No. 3 to the gelatine solution, and to that of nitrate of silver the 2 c.c. (32 min.) remaining. The temperature of the water-bath is then raised to about 70° Centigrade (158° Fahr.), and sensitize by adding, gradually, the silver solution to the gelatine solution, agitating strongly. After sensitizing the temperature of the bath is allowed to fall to from 45° to 50° Centigrade (113° to 122° Fahr.), and after fifteen minutes, add 6 grms. (92 grains) of Nelson's gelatine, No. 1. Agitate, and after a few minutes the solution is ready. The digestion is then prolonged for two and a half hours, at a temperature of 45° Centigrade (113° Fahr.). The emulsion is now divided into two equal parts, which are poured into two paper dishes, in a thin film, so as to render the washing easy. This washing lasts twenty-four hours, during which the water should be changed seven or eight times. It is now removed with a scraper, and allowed to dry for two days upon a sieve, placed in a dark and well-aired room, without heat. To prepare the plates, add 160 c.c. (5 fl. oz. 3 dr. 17 min.) of rain-water to 14 grms. (216 grains) of gelatino-bromide.

The developer of Mr. Sans is composed thus:

No. 1.

Rain Water,	. 100	c.c.	(3 fl. oz. 3 dr.)
Pyrogallie Acid,	. 0.25	grms.	(4 grains).
White Sugar,	. 5	"	(77 ")

After immersing for two or three minutes in this liquid, the cliché is removed, and 2 c.c. (32 minims) of the following compound is added to the liquid:

No. 2.

Rain Water,	. 30	c.c.	(1 fl. oz.)
Bromide of Potassium,	. .	1.40	grms. (22 grains).
Pure Ammonia,	. 2	c.c.	(32 minims).

The cliché is developed in about twenty minutes.

The strengthening is done in full light, after fixing and washing.

The wet cliché is placed in a very clean porcelain dish, and covered with the following solution, No. 1, to which have been added 4 c.c. (1 fl. dr.) of solution No. 2.

No. 1.

Rain Water,	. .	200	c.c.	(6 fl. 7 fl. dr.)
Gallie Acid,	. .	2	grms.	(16 grains).
Tartaric Acid,	. .	0.1	"	(1½ ")
Nitrate of Lead,	. .	0.3	"	(5 ")
Glycerine,	. .	3	c.c.	(50 min.)

No. 2.

Nitrate of Silver, fused,	. .	4	grms.	(62 grains.)
Distilled Water,	. .	100	"	(3 oz. 1 dr.)

After seven or eight minutes, if it is not yet strong enough, add then, in the corner of the dish, a few drops of liquid No. 3.

No. 3.

Rain Water,	. .	30	c.c.	(1 fl. oz.)
Sulphate of Iron,	. .	2	grms.	(31 grains).
Tartaric Acid,	. .	0.4	"	(6 ")
Acetate of Lime,	. .	0.1	"	(1½ ")
Glycerine,	. .	5	c.c.	(1 fl. dr. 21 min.)

The bath acquires a bluish tinge, and the cliché changes its tone sooner. To keep the dishes in motion (a precaution necessary in developing and strengthening), an appliance having an automatic and regular movement should be used.

At first these formulas may seem rather complicated, but they should be tried in order to speak more authoritatively about them, and we give this process because it yields results, and they have been shown to us, of a very remarkable character. A little more or a little less in the dish is not important, if the result is excellent.

Here is the formula of another skilful worker, Mr. Fernand Braun, whose beautiful prints prove that they have been obtained by an excellent process.

Mix, after cooling to 15° Centigrade (59° Fahr.), the two following preparations:

No. 1.

Nitrate of Silver,	. .	100	grms.	(3 oz. 1 dr., Troy).
Water,	. .	500	"	(16 oz., Troy).

No. 2.

Bromide of Ammonium,	. .	62	grms.	(1 oz. 8 dr., Troy).
Water,	. .	1500	"	(48 oz., Troy).
Gelatine,	. .	6	"	(92 grs., Troy).

The silver solution is poured into the bromide solution, whilst continually agitating. A few minutes afterwards add 40 c.c. (1 fl. oz. 3 dr.) of pure concentrated liquid ammonia. This substance causes imme-

diately the emulsion to become milky. According as this emulsion is heated for a longer or shorter time, over a water bath at 35° (95° Fahr.), we obtain different degrees of rapidity. Six hours give the ordinary rapidity; twelve hours give the maximum of sensitiveness, which is not much increased by heating for a longer time. When the desired rapidity is obtained, take a vessel holding about 12 litres (12 quarts), in which are placed 10 litres (10 quarts) of filtered rain water, and add the emulsion well stirred; close with a lid covered with a cloth impervious to light, and put aside for from 4 to 6 days. At the end of this time decant the clear liquid. This being done, take 80 grammes (2 oz. 4 dr. 35 grs., Troy) of Henderson's gelatine, 1 litre (1 quart) of filtered rain water, and add it cold to the bromide deposit which mixes easily in *cold water*. Agitate strongly, allow the gelatine to swell so that it can dissolve more readily, this taking place at a temperature of 35° (95° Fahr.). This done, the emulsion is filtered and is ready for use.

The new progress made in zincography, gives interest to the following formulas for copper-baths.

1. For a very thin copper pellicle, plunge the zinc into a compound of—

Water saturated with Bichlorate	
of Copper	100 parts
Ammonia	150 "
Water	3000 "

2. For a heavy coating, take the preceding bath, which is of a beautiful blue color, and add to it water saturated with cyanide of potassium until the almost total disappearance of the bluish tint of the mixture. The operation is rather slower, but the coating is almost as substantial as that obtained with the battery.

3. Finally, for engraved or typographic zinc plates, use a mixture of water saturated with sulphate of copper, and water saturated with cyanide of potassium, until the complete solution of the precipitate, and discoloration of the liquid. These formulas are recommended by Captain Biny.

Mr. Gronfier very strongly objects to the use of cyanide of potassium, and recom-

mends a more complicated process, giving without the use of this dangerous substance an *adherent* deposit. He plunges the well-cleaned zinc into a solution of from 5 to 10 per cent of bichloride of platinum, or, better, of double chloride of platinum and sodium. The zinc is at once perfectly covered with a black coating of very tenacious and finely divided oxide of platinum, insoluble in diluted acids. When the operation is completed, rinse the plate that has been withdrawn from the platinum bath, which can be used until exhausted, and whilst wet, place it in a warm saturated bath of acetate of copper. The platinized portion commences to whiten, then, when this whiteness is about to disappear, the plate is at once taken out and *lightly* rubbed with a piece of buckskin impregnated with an aqueous solution of oxalic acid at 15 per cent. The two platinum and copper films will resist a biting of 2½ per cent. of strong nitric acid.

Captain Biny has just invented a process which is a counterpart of the one previously described by us under the name of topo-engraving. He coats with copper the lines of a design obtained by means of bitumen exposed through a positive on a zinc plate, and then applies the acid. The lines remain in relief and the sunken parts are filled with gelatine. Printing is done on the lithographic press. Wherever the gelatine is moist the ink does not take, whilst it adheres perfectly well to the lines in relief. In order that these last should not be covered by the gelatine, he is careful to coat them beforehand with a fatty varnish.

Mr. Bidon furnishes a developer for gelatino-bromide which never fogs.

No. 1.

Alcohol	100 grms. (3 oz. 1 dr.)
Pyrogallie acid	10 " (154 grs.)

No. 2.

Bromide of potassium	
and ammonium	10 grms. (154 grs.)
Water	100 " (3 oz. 1 dr.)

No. 3.

Concentrated ammonia	50 grms. (1 oz. 5 dr.)
Water	100 " (3 " 1 ")
Carbonate of soda (saturated solution)	10 " (154 grs.)

To develop, place in a dish :

Water, . . .	250 cc. (8 fl. oz. 3 dr. 37 mm.)
Solution No. 1, . . .	2 " (32 minims).
" No. 2, . . .	2 " (32 ")
" No. 3, . . .	1 " (16 ")

Mr. Marey, professor in the College of France, is busily occupied in analyzing the motion of birds on the wing. He has invented a revolving gun by means of which

he can take in one second twelve successive prints of a flying bird. Each print corresponds to an exposure of about one seven-hundredth of a second. These prints offer great interest and are an additional proof of the assistance given by photography to science.

LEON VIDAL.

PARIS, April, 1882.

Editor's Table.

CORRECTION.—On page 102, line 9, of our last issue, for "blankets" read "buckets."

THE letter from Mr. RAU, on the more strictly practical details of the work now being so successfully accomplished by Mr. WILSON, will be read with no less interest than his own historical and descriptive communications. We are glad to announce this letter as the first of a series.

We learn that our esteemed friend, Mr. J. TRAILL TAYLOR, the editor of the *Photographic Times*, is about to visit England, his native land. We speak for a large number of our subscribers and friends, as well as ourselves, in wishing him the smoothest of seas and a speedy return.

THE advertisement of the EXCELSIOR BACKGROUND COMPANY, of Gouverneur, N. Y., will be found in our pages this month.

In these days of accessories and backgrounds, a great demand has sprung up for new designs, and the readers of the *Philadelphia Photographer* will find a great variety of subjects in the advertisement of this Company; anything from a "Garden of Ferns" to a "Reception Hall."

PICTURES RECEIVED.—From Mrs. R. MAYNARD, Victoria, B. C., stereos of romantic scenery on gelatine plates. From Mr. C. A. STACEY, Lockport, N. Y., well-posed cabinets and cards. From Mr. M. H. ALBEE, Marlboro, Mass., cabinets and cards.

WE are pleased to see a very handsome notice of Mr. S. V. COURTNEY'S studio and work in the Canton, O., *Repository*, of April 8.

A similar notice on behalf of Mr. W. H. POTTER, appears in the Indianapolis *Saturday Review*, of the same date.

WE have received several letters supporting the views expressed in Mr. W. C. TAYLOR'S article on Ruby Glass, in our last issue. Mr. CHILD,

of Newport, R. I., sends us a carte successfully developed by the light of a window painted yellow, covered with a couple of thicknesses of ordinary yellow tissue-paper. The sensitiveness of the plates used in this case was about ten times wet.

THE catalogue of photographic requisites, issued by Mr. H. A. HYATT, for the Mound City Central Photographic Stock-House, St. Louis, Mo., is handsomely illustrated, and is certainly the most full and attractive medium of its kind that we have seen for a long time.

And we may say the same of Mr. HIRAM J. THOMPSON'S Spring Supplement to his complete Illustrated Catalogue. Mr. THOMPSON'S new place of business is at No. 84 Wabash Avenue, Chicago.

EASTER BELLS have pealed forth their glad notes each Easter morn for eighteen hundred years, proclaiming to the world, "The Lord has risen." A happy day it is to all who, with glad hearts and songs of praise, welcome the advent of a bright Easter morning. How full of joy, then, must have been the heart of the fond mother who, while the Easter bells were ringing, welcomed into the world, two years since, the little "Easter offering" which decks the cover of our journal for this month. The picture is copied from a cabinet photograph, taken a few months since by Mr. MAX PLATZ, of Chicago, and is a study in posing, the child being only sixteen months old. The capabilities of the IVES' process are again well shown in this picture, as the likeness of little Miss EASTER BELL — is faithfully preserved, and makes a most charming little souvenir of child-life.

THE "iron powder" referred to in Dr. VOGEL'S letter is simply metallic iron in a fine state of division, as, for instance, filings still further pulverized by a slab and muller.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.



February 18th, 1882.

LIST OF LATEST DESIGNS.

- No. 454. The Alman Interior.
- No. 456. The Algiers Conservatory.
- No. 457. The Mora Boudoir Panel (usual size 6 ft. x 8ft.). Very elaborate for full and three-quarter lengths.
- No. 459. Bristol Valley. Winding stream, quaint farmer's bridge. Sketched from nature. *Design copyrighted.*

New designs will appear each week from now till early summer, and Seavey will excel any of his former efforts in his exhibit at the coming convention at Indianapolis.

FOR SALE.—\$2300 will buy a studio in a city with a population of about 25,000, and surrounding towns increasing it to 40,000. Pay-rolls of the different manufacturing industries amount to nearly one-half million monthly. Good reasons for selling. For further particulars, address

PHOTOGRAPHER,

Care F. C. C., 242 Westminster St.,
Providence, R. I.

\$1000 cash will buy one of the best photographic galleries in Chicago. Owner is obliged to quit the business on account of poor health. Call or address

N. C. THAYER,

Photo. Stock Dealer, 149 Wabash Ave.,
Chicago, Ill.

WANTED.—A retoucher, one who understands operating; a good salary and steady situation to the right person. Address JAS. R. PEARSON,
95 5th Ave., Pittsburgh, Pa.

THE

Rockwood Solar Printing Co.

Is organized with every possible advantage of capital, experience, solar cameras, artificial lights, etc., for the prompt execution of orders in the way of enlargements.

New and Lower Price-Lists.

Size.	Unmounted.	Mounted.
11 x 14 and under.....	\$1 00.....	\$1 50
13 x 16 }	1 50.....	2 00
14 x 17 }	2 00.....	2 50
16 x 20 }	2 50.....	3 00
18 x 22.....	3 00.....	3 75
20 x 24.....	4 00.....	5 00
22 x 27 }	5 00.....	6 00
25 x 30 }	6 00.....	7 50
26 x 32.....	8 00.....	10 00
29 x 36.....		
30 x 40.....		
35 x 45.....		
40 x 50.....		

SPECIAL NOTICE.

No CHARGE FOR NEGATIVES.—As much depends upon the good printing qualities of a solar negative, we will make solar negatives from copies, *without charge*, if the originals are sent to us with the orders for enlargements.

All orders must be accompanied by the cash. Make all P. O. orders payable to

ROCKWOOD SOLAR PRINTING Co.,
17 Union Square, New York.

THE NEW GELATINE BROMIDE PAPER, first introduced by us, for instantaneous printing, enables us to send enlargements for tracings by return mail.

FOR SALE.—At a bargain, gallery pleasantly located in the central part of Grand Rapids, Mich., good north light for operating, printing, and retouching. Must be sold before June 1st; write for particulars.

B. D. JACKSON,
Grand Rapids, Mich.

THE NEW
EURYSCOPE.

TRY this new lens, and you will never buy any large portrait lenses. Voigtlander & Son's No. 7, and the smaller sizes, are very quick-acting, but as regards large-sized plates, the Euryscopes are far superior for groups, panel pictures, and large heads.



WILSON'S PHOTOGRAPHICS

Is the most complete, thorough, photo-instruction book ever published. Second thousand in store. See advertisements. \$4.

NOTICE OF REMOVAL.—Mrs. Clarke, Artist, late of 561 Druid Hill Avenue, Baltimore, begs to inform her friends and the photographic profession that she has removed to 2104 North 20th St., Philadelphia, Pa., where she will be happy to receive any commission for water-color painting. Terms, etc., on application to Mrs. Clarke, or to the office of the *Philadelphia Photographer*.

S. G. NIXON, Portrait Artist, 813 Arch Street, Philadelphia, Pa. Solar enlargements finished in crayon, water color, and Indian-ink in true artistic style, and the likeness and expression faithfully preserved. Also small colored and Indian-ink work, etc. Terms moderate.

WANTED TO PURCHASE a 12 x 15 or a 16 x 18 view Dalmeyer rapid rectilinear lens, in good order, for cash. Address

ALVA PEARSALL,
615 Fulton Ave., Brooklyn, N. Y.

WANTED.—A young man as assistant operator in skylight; one who understands all branches of the business. Address J. LANDY,
Cincinnati, O.

NOTICE.

THE WONDERFUL EURYSCOPES and NEW PORTRAIT LENSES.

Just received, a large invoice of the above Lenses. Those who have not succeeded in getting them, will do well to send in their orders at once.

BENJAMIN FRENCH & Co.,
Boston.



WILSON'S PHOTOGRAPHICS

Shows you how to group and pose children naturally and gives fine examples of work. Read the partial index herein. \$4.

FOR SALE.—A very desirable gallery, in Pittsburgh, doing a business of \$7000 a year; satisfactory reasons for selling. To a man meaning business, this is a splendid chance. Address

HYPPO,
Care *Philadelphia Photographer*.

WANTED.—For a short time, a good, No. 1, printer and toner. Address, with samples, also state wages expected,

VAN PATTEN & TICE,
Box 66, Great Barrington, Mass.

A STEADY SITUATION.—We want a No. 1 operator who is up in all other branches of the business. Send samples, photograph of self, and references to

CLENDENON & NICHOLAS,
Jacksonville, Ill.
Refer to Jas. H. Smith, Quincy, Ill.

WANTED.—A first-class operator, thoroughly practical in all branches of photography, to take charge of the only gallery in Columbus, Miss. Address, with specimens of work,

WM. N. MUNROE & Co.,
Columbus, Miss.

MAKE YOUR OWN ENLARGEMENTS.—The Patent Gem Solar Camera will print the finest enlargements on albumen, platinum, or plain paper. Only \$60. Send for reduced price-lists of larger instruments. D. A. WOODWARD, Baltimore, Md.

THE PLATINOTYPE PROCESS.—Having disposed of their printing business in New York, Willis & Clements will now devote the whole of their time to manufacturing chemicals for the process, and to instructing licensees in working. They have appointed Thos. H. McCollin, 631 Arch Street, Philadelphia, Sole Trade Agent for the sale of the special materials and apparatus used in the process. Willis & Clements will answer all letters of inquiry concerning the process.

Proprietors of patents, WILLIS & CLEMENTS,
631 Arch St., Philadelphia, Pa.

Agent, THOS. H. MCCOLLIN,
631 Arch St., Philadelphia, Pa.

NOTE.—On receipt of \$1.75 a small supply of chemicals and paper will be sent to any one desiring to try the process.

Wilson's Photographics. Ready.
Price, \$4.00.

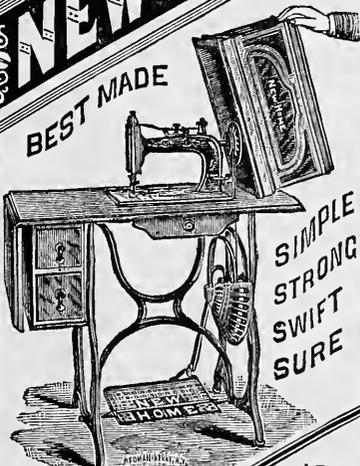
FOR SALE.—One of the best galleries in Michigan, but one other good gallery in a town of 20,000, with a town of 10,000 across the river, and good country surrounding. \$1,000,000 expended in the city last year in buildings; gallery is central, with first-class trade in photographs, ink work, and frames. Water, sewer, and gas connections. \$3.00 for cards, \$7.00 for cabinets, with large work in proportion; nearly as much cabinet work as card. Business shows an increase of from \$75 to \$100 per month over best previous year. Refer to anyone in the Saginaws. Failing health the reason for selling. Cash only will buy. Address F. F. BEALS, E. Saginaw, Mich.

FOR SALE.—Photo. car, 24 feet long, 10 feet wide, 7½ feet high. Has top and side light, tin roof; is strongly built, cannot be racked in moving. Cost \$600, will sell for \$400. For further particulars, address W. E. BENTON, Care A. R. Peck, Taylorville, Ill.

FOR SALE.—A good, well-lighted gallery in Syracuse, N. Y., with or without building; established 15 years; everything in good order; will sell at a discount from inventory; am retiring from business. For particulars, address PHOTOGRAPHER, 26 Wolf St., Syracuse, N. Y.

Wilson's Photographics. Ready.
Price, \$4.00.

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SEWING MACHINES
is the
LIGHT-RUNNING
NEW HOME
BEST MADE
SIMPLE
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D. S. EWING,
1127 CHESTNUT ST., PHILADELPHIA, PA.

FOR SALE OR EXCHANGE.—Second-hand view tubes; 1 pair C. C. Harrison 10 x 12 globe; 1 $6\frac{1}{2} \times 8\frac{1}{2}$ A. E., imitation Ross, actinic doublet, with patent diaphragm and instantaneous shutter. Second-hand portrait tubes; 1 No. 5 Euryscope; 1 4-4 Gardner, Harrison & Co. short focus; 1 4-4 Darlot; 1 $\frac{1}{2}$ size Voigtlander; 1 $\frac{1}{2}$ size Palmer & Longking; 1 $\frac{1}{2}$ size C. C. Harrison; 1 $\frac{1}{2}$ size C. C. Harrison. All the above are as good as new, so far as the wear on them is concerned. Correspondence in reference to them is respectfully solicited. Send for a copy of my Bargain List.

W. R. REID,

Dealer in Photographic Stock and Apparatus,
352 & 354 (New No.) Euclid Ave., Cleveland, O.



WILSON'S PHOTOGRAPHICS

DEVOTES 58 pages to instructions in posing and lighting the figure. See advertisements. \$4.

6. 6 Wilson's

A RARE CHANCE TO LEARN SHORT-HAND.—Rowell & Hickcox, the publishers of the *American Short-hand Writer*, have opened the most complete school of short-hand in the United States at Boston, Mass.

For \$1.50 they will send this year's volume of their magazine, containing a full course in phonography, and correct the lesson exercises of all subscribers by mail, free. This offer holds good until January 1st, when the price of subscription is to be advanced to \$2.50. When the fact is known that a full course of instruction taken at their school in Boston costs \$75, the rare chance afforded by this extraordinary offer may be realized. Short-hand clerks, not expert, command a salary of \$75 a month upwards, while the standard prices paid for law reporting is \$10 a day. Why not get up a class in phonography here to learn through this medium? We will head the list ourselves, and receive and forward subscriptions for the *Short-hand Writer*.

DECEMBER 1st, 1881.

No. 18. VIGNETTE PAPERS, No. 18. WAYMOUTH'S.

The old form of No. 18, Waymouth's Vignette Papers, oval, has been discarded, and a *new pear-shaped* style is now ready in its place. It is a beautiful piece of gradation and prints perfectly. Price \$1.25 per dozen. For sale by all dealers. See advertisement.

No. 18. NOW READY. No. 18.

GIHON'S OPAQUE.—As a rule, photographers are familiar with this most convenient article of gallery use, but, doubtless, there are some who still are unacquainted with it. It is just what it claims to be, and so announces on the wrapper of each box: "A dense, non-actinic paint, for stopping out imperfect backgrounds, or defective skies in negatives, for coating the inside of lenses or other brass work, etc." It is an invaluable article, and should have a place in every photographic establishment in the country, whether large or small. A photographer lately remarked to us, "GIHON'S Opaque is worth its weight in gold." This sounds rather exaggerated, as a cake of the compound is quite large, and of some weight; still it is most valuable, and its place can be filled by no other article now in the market.

That Opaque is very generally used, and that its use is daily growing was proved to us on a recent visit to New York. In the store of SCOVILL MANUFACTURING COMPANY, we noticed a large pile of these neat little packages, and on inquiry were assured that the demand was very large, and steadily increasing.

To those who have not tried opaque, we would say, send fifty cents to your stock-dealer and get a cake. You will wonder how you ever got along without it. Sold by all dealers.

I OFFER the following photographic, etc., apparatus for sale at half the market price. One solar camera (on casters); Jamin 4-4 lens, with view tube; one 4-4 New York optical works; one pair of Harrison's globe lenses; one pair of Dallmeyer's stereo. rectilinear ($2\frac{1}{2}$ inch focus); one pair of Dallmeyer's (with Diffusion adjustment) 4 inch focus; a pair of Dallmeyer's view lenses (6 inch focus); view lens (Voigtlander); dark room on wheels; two other kinds; one changing box holding eighteen plates, stereoscopic; Sarony's head rest, and other kinds; one telescope (astronomical and terrestrial); one compound microscope (extra objectives), etc., etc. Apply to

I. TOWLER,

Hobart College, Geneva, N. Y.

WANTED.—Stock-dealers, manufacturers, and others to send their advertisements of latest improvements to

J. T. WILEY,

Photographer,
Christiana, Lancaster Co., Pa.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

In a first-class gallery, by an artist in crayon, pastel, India ink, and water color; a No. 1 negative retoucher; will furnish specimens of work and reference; desires to go east. Wages, \$20 per week. Address Box 756, Altoona, Pa.

WANTED.—By an experienced portrait painter, accustomed to the demands of eastern and western patronage, as artist in a gallery at a mountain or seaside summer resort. Proficient in all branches of photo. retouching in oil, water colors, and Indian ink. Caryon and pastel—correct likenesses and artistic finish. Low terms for summer engagement. Address, for two weeks, Box 563, Chillicothe, Ohio.

An operator, and business manager for over 12 years with two of the leading photographers of the east, desires a position as operator or manager, or both. Or is willing to take an interest in a first-class gallery as a working partner. Only those who desire a faithful and competent man, and are willing to pay a good salary need apply. References exchanged. Address Franklin, care C. H. Codman & Co., Stock Dealers, 34 Bromfield St., Boston, Mass.

SITUATION.—By a first-class retoucher with good references. Address E. Lubbers, care W. W. Washburn, New Orleans, La.

A photograph finisher of seven years' experience, who understands crayon, ink, and water-color work, desires a first-class permanent situation. Does crayon drawings, and works on albumen. Large work preferred. Address C. E. L., 140 William St., New York.

A well-educated man of good address, and having 7 years' experience, is open for a three-months' engagement beginning June 1, 1882. A rare chance for anyone desiring a summer vacation; capable of taking entire charge of a gallery. References given and required; salary moderate. Address "Dry Plate," care B. B. Tiffany, Indiana, Pa.

Artist, oil and crayon, good retoucher; years with Lighton Bros., Norwich, also Broadbent & Phillips, Philadelphia; will engage with first-class photographer. Address Artist, Box 636, Norwich, Conn.

By a first-class retoucher and artist for all branches; 18 years' experience; Ohio preferred. Address Schlickeisen, 64 N. Gay St., Baltimore, Md.

A situation as first-class operator and printer; can also retouch, and good at ferrotypes. Address Photographer, S. W. Cor. Ringold Place and Fort St., Philadelphia.

Wilson's Photographics. Ready.
Price, \$4.00.

J. L. CLARK,

GOLD AND SILVER REFINER,

ASSAYER AND SWEEP-SMELTER,

REMOVED TO

823 Filbert St., Philadelphia, Pa.

RETURNS MADE IN STRICTLY PURE CHEMICALS.

REFERS TO, BY PERMISSION:

JOHN CARBUTT, Dry Plate Manufacturer, Philada.

WM. H. RHOADS, Photographer and Artist, Philada.

GILBERT & BACON, Photographers and Artists, Philada.

WM. H. CLIFFORD, Photographer and Artist, Philada.



The Improved Photograph Cover.

IT SERVES ALL THE PURPOSES OF AN ALBUM.

It is made with expanding back, so that from six to twenty-four pictures may be inserted in one cover. The pictures are mounted in the usual way, and then strips of linen or strong paper, of the proper width, are pasted on one edge, by which the picture is inserted and held in place in the cover by a paper fastener. For binding together views of your town or city, or portraits of celebrities, they are very neat. The following is a list of sizes and prices, without cards:

For Photographs.	Per doz.	Per hundred.	For Photographs.	Per doz.	Per hundred.
Card Size,	\$1.50	\$10.00	Cabinet Size,	\$2.25	\$13.00
EXTRA HEAVY COVERS.					
5-8 Size,	4.50	33.00	4-4 Size,	6.00	40.00
8-10 " " " " " "	8.00	56.50	11-14 " " " " " "	9.00	65.00

Special sizes made to order. Samples mailed at dozen prices. *Send for some.*

EDWARD L. WILSON, Photo. Publisher, 912 & 914 Chestnut St., Philada.

ALBERT MOORE THE SOLAR ENLARGER,
THE LONGEST, LARGEST, AND BEST.
828 Wood Street, Philadelphia.

A NEW CATALOGUE OF
LANTERN SLIDES
AND LANTERNS.

READ IT. FIFTEEN CENTS IN STAMPS.

TELLS OF GASES WITHOUT BAGS, NEW LISTS OF SLIDES,
 THE ELECTRIC LIGHT IN THE LANTERN, NEW LANTERNS.

☞Lantern Lovers should be sure to Examine it.☞

EDWARD L. WILSON, 912 & 914 Chestnut Street, Philadelphia.

THE PHOTOGRAPHER TO HIS PATRONS

Is a neat little leaflet of twelve pages of the size of the four pages below. It tells your patrons what you want them to see on **Photography as an Art; When to Come; How to Come; How to Dress; How to Behave; and about Children, Business, Frames, Copying, Coloring, and Prices.**

"THERE'S MILLIONS IN IT."

PHOTOGRAPHERS OF AMERICA:

In these times of competition we all want something to *stir up business*. It is believed that no means of advertising, half so good, was ever offered to photographers, as that acceptable little leaflet,

"The Photographer to his Patrons."

Its utility and usefulness are proven by the fact that it has been demanded and translated into Spanish and German; that over

1,000,000 copies have been sold,

and that hundreds of photographers have written to the author, testifying to its great value as a positive *business-bringer*.

I take the liberty of sending you a copy, and ask you, *for your own interest*, to read it carefully all through. I have, since its publication, issued two other works of a similar character—*Pretty Faces*, at half the price; and *Something New*, at the same price. But the choice still seems to be for the old favorite, and I am still supplying it continually. The sample herewith is of a lot lately printed; and I desire to call your especial attention to a method which will secure you all the advantages of this work as an

(i)

the expense of hiring a man and team to distribute them in adjoining towns. I shall, undoubtedly, want more when these are gone. I got \$13.50 for the advertisements."

We endeavor to get them up in attractive and elegant style; and in order to protect those who use them in the enjoyment of them, we have *copyrighted* them, and trust no one will attempt their degradation by cheap and badly-made copies of them. We can print them as cheap as any one can for the quality, and have

RECENTLY REDUCED THE PRICES

to the following scale:

500 copies,	\$9 00
1000 "	15 00
3000 "	36 00
5000 "	50 00

Some photographers have had as many as 25,000, using them continually. Please look into the matter, and send on your orders for all seasons.

We supply, free of charge, several beautiful fancy cuts for the covers; but where three of the pages are covered with other matter, the style of the present sample is the neatest. You can have your own choice.

As already said, these leaflets are used all over the country, often by our leading photographers, from some of whom were received the following testimonials.

(iii)

advertisement, and yet cost you little or nothing. *The four pages of the cover are yours, to use for what you please.* You only need the first page for yourself. Get advertisements from your neighbors, at a proportionate figure, for the rest, and your leaflets cost you only the expense of distribution.

Messrs. Albert & Son, Alexandria, La., have seven advertisers, another recently had eight. From six of them he got \$1.75 each, and from two, \$2.25 each; making \$15—the cost of 1000 leaflets. Examine the copy herewith.

Mr. H. C. Norman, Natchez, Miss., who has adopted the same plan, writes, viz.: "As an advertising medium the leaflets have no equal. Two hours secured me seven advertisements, amounting to \$17.50, leaving me \$5.00 balance for express charges; thus securing me 1000 leaflets for nothing. With a little energy any photographer can secure cards enough from his friends to pay for all the leaflets he requires, and he should not be without them. I have not only seen, but felt, the result of using them."

Mr. L. B. Truax, Swanton, Vt., writes, viz.: "The leaflets have been received and prove a decided benefit to me. I consider them the best advertising medium I have yet found. The merchants who advertised on the covers seem to be of the same opinion; one of whom went to

(ii)

KEEP YOUR EYE ON THIS!



TESTIMONIALS:

"Send 5000 in English and 2000 in German."
JNO. A. SCHOLTEN, St. Louis.

"Let me have a lot as soon as printed."—J. F. RYDER, Cleveland, O.

"It works satisfactorily in every way."—A. N. HARDY, Boston. (Mr. Hardy has had 4 or 5 lots.)

"They are the best business-cards a photographer can have."—T. S. ESTABROOKE, N. Y.

EDWARD L. WILSON, *Photo. Publisher,*
912 & 914 Chestnut St., Philada.

(iv)

DEALERS' DIRECTORY.

The following houses are to be recommended as the best for photographers in their localities.

S. T. BLESSING, New Orleans, La.	Douglass, Thompson & Co. "Great Central," Chicago, - - - Ill.	JAMES H. SMITH, Quincy, Ill.
H. A. HYATT, Mound City Photo. Stock House, 411 North Fourth St., St. Louis, Mo.	D. J. RYAN, Savannah, Ga.	J. C. SOMERVILLE, St. Louis, Mo.
SCOVILL MANF'G CO., 419 & 421 Broome St., New York.	D. TUCKER & CO., Buffalo, N. Y.	BLESSING & BRO., Galveston, Texas.
C. H. CODMAN & CO. Boston, Mass.	WILSON, HOOD & CO., 825 Arch Street, Philadelphia, Pa.	B. FRENCH & CO. Boston, Mass.
WM. J. HAZENSTAB, 406 Market St., St. Louis, Mo.	EDWARD L. WILSON, Photo. Publisher, LANTERN SLIDES, 912 & 914 Chestnut St., Philadelphia.	THEO. SCHUMANN, Atlanta, Ga.
OSCAR FOSS, San Francisco, Cal.	G. B O D E, Milwaukee, Wisconsin.	W. D. GATCHEL, Cincinnati, Ohio.

GET THE BEST!

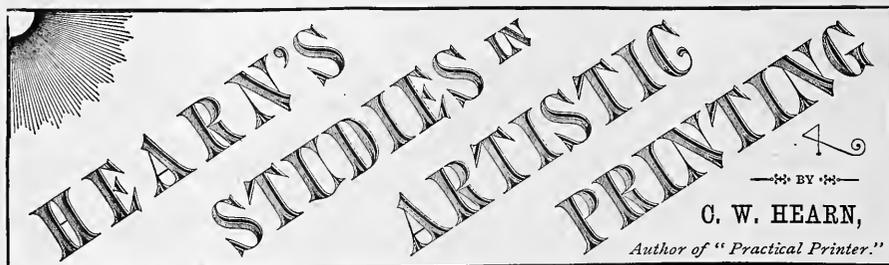
CRAMER & NORDEN'S
ST. LOUIS
EXTRA-RAPID DRY PLATES.

WARRANTED PERFECT,

With Latest Formulas and Complete Directions for Use.

FOR SALE BY

G. GENNERT, 105 William St., New York, Agent for the Eastern States.	MULLETT BROS., Kansas City, Mo.
DOUGLASS, THOMPSON & CO., Chicago.	H. A. HYATT, St. Louis.
N. C. THAYER & CO., Chicago.	WM. J. HAZENSTAB, St. Louis.
HIRAM J. THOMPSON, Chicago.	JAS. C. SOMERVILLE, St. Louis.
C. J. RICE, Chicago.	H. LIEBER & CO., Indianapolis.
W. D. GATCHEL, Cincinnati.	JAS. H. SMITH, Quincy, Ills.
P. SMITH & CO., Cincinnati and Columbus, O. [ville, Ky.	G. MOSES, New Orleans.
W. D. GATCHEL & CO., Louis-	S. T. BLESSING, New Orleans.
J. V. ESCOTT & SONS, Louisville.	ZIMMERMAN BROS., St. Paul.
	GUSTAVUS BODE, Milwaukee.



SIX FINE CABINET AND PROMENADE PORTRAIT STUDIES.

AMONG OTHER THINGS IT CONTAINS.

Suggestions on the Choice of Albumen Paper—All the Best Silvering Baths, and Methods of treating the same—New Views on the Relation of the Silver Bath to the Time of Floating—The Different Effects Caused by the Time of Floating—How to Tell when Paper is Floated too Long or too Short a Time—Table for Time of Floating Paper under all Circumstances—The Importance of Care in Printing in Varied Ways—The Important Relation Printing from the Negative Bears to the Toning Bath—Fast Printing—Dialogue between "Joe" and a Friend—The Way to Success in Toning Lies in Printing—The Different Effects Caused in Printing by the Preparation of the Silver Bath—The Relation of the Silver Bath to the Printing from the Negative, and from this to the Toning Bath—Acetate of Silver—Success or Failure in Toning Caused by the Strength, Purity, and Alkalinity of the Silver Bath—*Harmony*, its Importance in Photography—Why its Neglect Causes such Disastrous Results—The Beautiful in Toning, and How to Obtain it—A Few Hints About Managing Toning Baths—Formulæ for Printing "Our Studies," as Given under Respective Headings—Impurities of Toning Baths—How it Affects the Toning, and How to Remedy such Baths—Fixing and Washing—Brilliance of the Finished Picture Attained by the Final Washing—Various and Valuable Hints about Finishing the Photographs, etc., etc.

Mailed to any address on receipt of price, \$3.50, by any stock-dealer, or by

EDWARD L. WILSON, Photo. Publisher, 912 & 914 Chestnut St., Philada.

SOLD BY ALL DEALERS. ASK TO SEE IT.

SINGHI'S VIGNETTING ATTACHMENT FOR PRINTING FRAMES.

To be used with WAYMOUTH'S VIGNETTE PAPERS.

(Patent Applied for.)

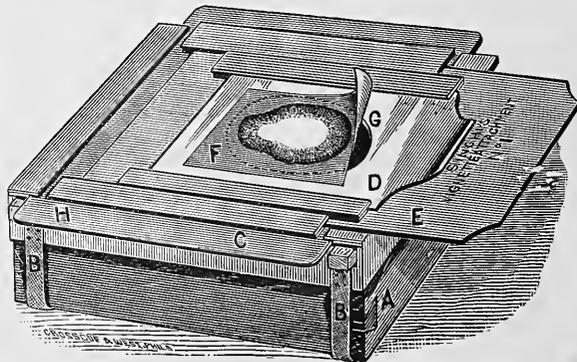
J. F. SINGHI, Inventor.

The best arrangement for adjusting these best of vignetting appliances in the world.

5x8 size now ready.

Price, by mail, \$1.50.

See description in this Magazine, June, 1881, or in *Wilson's Photographics*.



FOR SALE BY ALL DEALERS.

BACKGROUNDS! ACCESSORIES! BACKGROUNDS!

GREAT REDUCTION! SEEING IS BELIEVING!

NOW IF ALL PHOTOGRAPHERS WHO ARE IN WANT OF
BACKGROUNDS AND ACCESSORIES,

Of any kind, will send to us for samples, they will be convinced by seeing that the largest, finest, and cheapest line of BACKGROUNDS and ACCESSORIES in the United States, can be had of the

EXCELSIOR BACKGROUND COMPANY,
 No. 28 Main St., Gouverneur, New York.

We have—The Garden of Ferns, The One Arch Bridge, The Garden, The Sea, The Column, The Wheat Field, The Bower, The Arch, The Landing, The Saw Log, The Stairway, The Abbey, The Castle, The Curtain, The Reception Hall, Italy, Country, Summer, The Oscudo, The Exit, etc., etc., etc.

GROUND MADE TO ORDER from DESIGNS FURNISHED, A SPECIALTY

Take a Photograph of your Home Scenery and send it to us.

PUBLIC ATTENTION is kindly called in regard to Mounting Grounds, our work is adapted for the roller or frame, being painted with a composition of Talc used by no other background painters in the United States, and warranted not to brush off, peel, or crack in the working of them. Our Grounds have the smooth finish that only our Talc composition can produce, with a softness and mellowness of tone unapproached by any other process.

REMEMBER, for the largest and best assortment, send to us.

REMEMBER, for the best designs at the lowest prices, send to us.

REMEMBER, all work made and sold by us will be guaranteed.

REMEMBER, we offer no goods for sale that will not give satisfaction.

REMEMBER, our prices are lower than any other producer in our line.

DON'T FORGET US, WE ARE IN THE MARKET TO STAY.

A. MEYEUR, Manager.
 R. L. COX, Secretary.

Excelsior Background Co., Gouverneur, N. Y.

NEW DRESDEN
 EXTRA  BRILLIANT
 ALBUMEN PAPER
 WHITE, PINK, PENSÉ.

FREE from BLISTERS and IMPERFECTIONS.

TESTIMONIALS.

MILWAUKEE, October 11th, 1881.

G. GENNERT, Esq.,
 New York.

DEAR SIR: The paper works lovely, and is a
 Godsend to the photographers.

Very truly, HARRY SUTTER.

MR. G. GENNERT.

DEAR SIR: One ream Extra Brilliant Eagle
 pink received and tried; my printers say it is the
 best they have had for years; it keeps perfectly
 white, which is one of the greatest features for us
 in St. Louis. It prints and tones fine. I am
 satisfied with the beautiful prints I've received for
 the past week, which is something, you know, I
 am hard to be pleased with. Keep it up, and
 send another ream immediately.

Yours truly, J. A. SCHOLTEN.

MILWAUKEE, October 3d, 1881.

G. GENNERT,
 105 William St., New York.

DEAR SIR: I wish to express my appreciation
 of the Eagle Brand Albumen Paper. I am
 highly pleased with it, it being the best I ever
 used, and for purity of tone and clearness in the
 high-lights and shadows it cannot be excelled.

HARRY SUTTER.

G. GENNERT, Esq.

DEAR SIR: I have received the 10Ko and
 8Ko Eagle light pink albumen paper which you
 sent me a few weeks ago, and now I have care-
 fully tried it, I can but say it is by far the best
 paper we have worked for a long time. Hoping
 the quality will remain the same for all time to
 come, I shall not want to use another brand.

Yours truly, H. ROCHER.

IMPORTED BY

G. GENNERT,
 105 WILLIAM ST., NEW YORK.

FOR SALE BY ALL DEALERS.

1882.

Photographers'
 Booksellers,
 Stationers,
 and
 Newsdealers
 Publishers of
 Hints on Burnishing
 Photographs,
 AND THE
 Photographers' Monthly
 Bureau of Information



1882.

We are
 MERCHANTS
 in
 ALL REQUISITES
 PERTAINING
 to the
 ART-SCIENCE
 of
 PHOTOGRAPHY.

Douglass, Thompson & Co.

Nos. 229 & 231 State Street,

GAYTON A. DOUGLASS.
 HENRY G. THOMPSON.

CHICAGO.

GELATINE BROMIDE DRY PLATE.

Beebe's, Cramer & Norden's, Eastman's, Carbutt's.

Outfits, and everything used in Dry Plate work.



We invite cash trade, believing it for the best interests of all parties to adopt the pay as you go system.

With us, cash with order, or on C. O. D. purchases, insures a discount of **5 PER CENT**, deducted from bill, in addition to the very low prices we offer.

A practical knowledge of the Art-Science of Photography gives us a special advantage in meeting all demands.

Our Warerooms are commodious, located conveniently for business, our stock ample for all usual demands, fresh, carefully selected, and we can sell at prices satisfactory to the consumer. **We deal in nothing but supplies for Photography**, devoting our whole time and energies to the wants of our patrons, thus offering a special advantage to such who appreciate care and attention. We study promptness in meeting all favors entrusted to us, and guarantee exactness.



A NEW TREATMENT

For Consumption, Asthma, Bronchitis, Catarrh, Dyspepsia, Headache, Debility, Neuralgia, Rheumatism, and all Chronic and Nervous Disorders.

ADMINISTERED BY INHALATION.

ACTS DIRECTLY upon the great nervous and organic centres, and *cures by a natural process of revitalization.*

HAS EFFECTED REMARKABLE CURES, which are attracting wide attention.

HAS BEEN USED BY Rt. Rev. John J. Keane, Bishop of Richmond, Va., Hon. Wm. D. Kelley, T. S. Arthur, and others, who have been largely benefited, and to whom we refer *by permission.*

IS STRONGLY ENDORSED: "We have the most unequivocal testimony to its curative power from many persons of high character and intelligence."—*Lutheran Observer.* "The cures which have been obtained by this new treatment seem more like miracles than cases of natural healing."—*Arthur's Home Magazine.* "There is no doubt as to the genuineness and positive results of this treatment."—*Boston Journal of Commerce.*

THE OXYGEN HOME TREATMENT contains two months' supply, with inhaling apparatus and full directions for use.

SENT FREE: a Treatise on Compound Oxygen, giving the history of this new discovery and a large record of most remarkable cures. Write for it. Address

DRS. STARKEY & PALEN, 1109 and 1111 Girard St., Philadelphia, Pa.

DEPOSITORY ON PACIFIC COAST.

WE HAVE ESTABLISHED A DEPOSITORY OF OUR COMPOUND OXYGEN HOME TREATMENT at San Francisco, Cal. This will enable patients on the Pacific Coast to obtain it without the heavy express charges which accrue on packages sent from Eastern States.

All orders directed to H. E. MATHEWS, 606 Montgomery Street, San Francisco, Cal., will be filled on the same terms on which we fill orders sent directly to our office in Philadelphia.

Patients ordering from our depository in San Francisco should, at the same time, write to us, and give a statement of their case, in order that we may send such advice and direction in the use of the Treatment as their special disease may seem to require.

ALSO SENT FREE

"**HEALTH AND LIFE**," a quarterly journal of cases and cures under the Compound Oxygen Treatment. Nos. 1 and 2 now ready. Address

DRS. STARKEY & PALEN,

Nos. 1109 and 1111 Girard Street, Philadelphia, Pa.

FREE LUNCH!

WE WILL SEND YOU A SAMPLE OF OUR

UNION NEGATIVE COTTON,
FREE OF CHARGE,

So that you may try it and be convinced of
ITS SUPERIOR QUALITY.

IF YOU NEVER HAD WASTE REFINED BY US
GIVE US A TRIAL AND COMPARE RESULTS
Circulars How To Save Waste, free on application.

CHAS. COOPER & CO.,
194 Worth St., New York.

PHOTOGRAPHIC COLORISTS' GUIDE THE

\$1.50

AT



By the late JOHN L. GIHON

→ PHOTOGRAPHIC COLORING. ←

The growing demand for a fresh work on *Photographic Coloring*, one that contains full instructions on all the new and improved methods—for like photography itself, photo. coloring has improved and progressed—has led to the publication of the above.

ITS CONTENTS ARE:

PREFACE.

- Chap. I. On India-ink Work.
- II. The Principles to be Considered in the Application of Colors.
- III. The Materials used in Finishing Photographs with Water Colors.
- IV. Water-color Painting as Applied to Photographs.

- Chap. V. Relative to the Use of Paints that are Mixed with Oil.
- VI. Coloring with Pastels.
- VII. The Production of Ivorytypes.
- VIII. The Crystal Ivorytype.
- IX. Crayon Work.
- X. Negative Retouching.
- XI. About Matters so far Forgotten.
- XII. Rudimentary Perspective.

The last chapter is on a subject entirely new and fresh, and is finely illustrated.

Mailed on receipt of price,
\$1.50 per copy.

EDWARD L. WILSON,
PHOTO. PUBLISHER,
912 & 914 Chestnut Street, Philadelphia.

IMPORTANT TO PHOTOGRAPHERS.

ONLY THE BEST GOODS
 ARE
COUNTERFEITED!

IT DON'T PAY TO IMITATE INFERIOR ONES.

Extra Brilliant "S. & M." Paper,
 Extra Brilliant "N. P. A." Paper,
 Extra Brilliant Cross Sword Paper,

Have all been counterfeited, and cheaper goods imposed upon Photographers.

NONE OF THE ABOVE ARE GENUINE

Unless the water-mark is seen, in each case, by looking through the paper:

"S. & M." in the "S. & M." Paper,
 "N. P. A." in the "N. P. A." Paper,
 "Cross Swords" in the Cross Sword Paper.

THE STAMP in the CORNER DON'T PROVE ANYTHING,
 Look THROUGH the paper.

E. & H. T. ANTHONY & CO.,

591 BROADWAY, NEW YORK,

HEADQUARTERS FOR ALL KINDS OF ALBUMENIZED PAPERS.

**A. M. COLLINS,
SON & CO.**

MANUFACTURE ALL KINDS OF

CARDS and CARDBOARDS

FOR

PHOTOGRAPHERS

AND

MATS and MOUNTS

FOR

FERROTYPES.

WAREHOUSE:

**527 ARCH STREET,
522 CHERRY STREET,
PHILADELPHIA.**

PRICE LISTS ON APPLICATION.

JOHN G. HOOD.

ESTABLISHED 1865.

WM. D. H. WILSON.

WILSON, HOOD & CO.

825 Arch Street,
PHILADELPHIA,

SOLE AGENTS IN THE UNITED STATES FOR THE

LONDON, 1851.

LONDON, 1862.

PARIS, 1867.



Centennial, 1876.

Centennial, 1876.

Ross' Portrait and View Lenses.

WE HAVE
NOW
IN STOCK

Portrait Lenses, from 1-4 to 8x10.
Cabinet Lenses, Nos. 2 and 3.
Card Lenses, Nos. 1, 2, and 3.
Triplets, Nos. 1, 2, 3, 4, 5, 6, and 7.
Symmetricals. Rapid Symmetricals.

Instantaneous Doublets, all sizes.
Medium Angle Doublets, all sizes.
Large Angle Doublets, all sizes.
Stereographic Lenses, all sizes.
New Universal Lens.

Numerous testimonials pronounce them to be the *best* as well as the *cheapest* Foreign Lenses ever offered to the American Photographer. We will mail price list on application, and promptly fill all orders.

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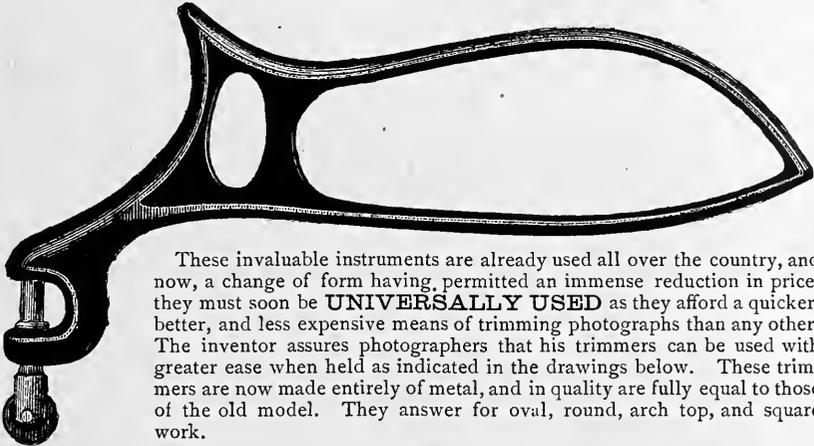
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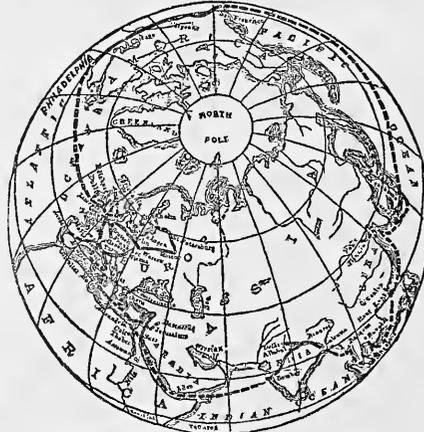
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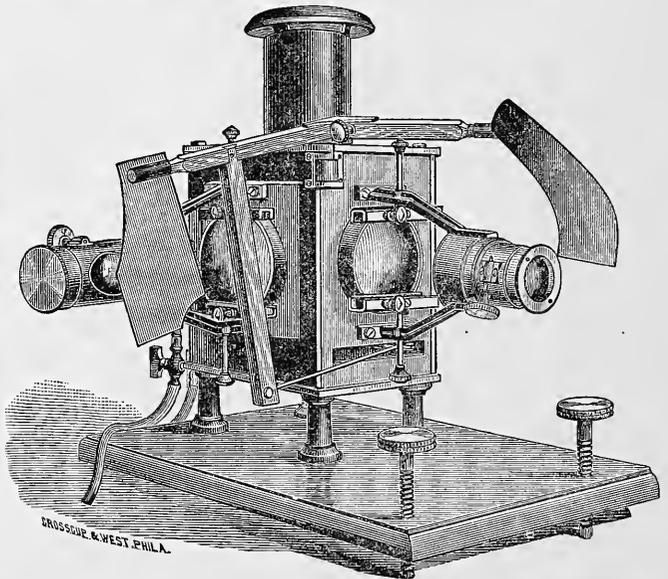
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— 1882. —

The Eighteenth Year of the "Philadelphia Photographer" closes with the December number, and as usual at this season, we come to our readers with thanks for their patronage and hopes for a renewal of their subscriptions.

The advanced position which we have maintained for our magazine in all these years should be an earnest to its patrons of the help it will be to them in the future.

Its circulation is far the largest of any, though other magazines in the same line are offered for two-fifths and three-fifths of its cost.

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Our pictures are partly printed for the new year, and include the work of Gilbert & Bacon (with two of Osborne's foregrounds), Philadelphia; eleven studies (in a "Mosaic" group) by five of the best Paris photographers; life statuary, by John A. Scholten, St. Louis; D. H. Anderson, New York; J. H. Lamson, Portland, Me.; J. E. Beebe, Chicago, Ill.; Henry Rocher, Chicago; a fine Colorado view; some views, etc., from foreign lands—as many as can be crowded in—an elegant album.

Photo-engravings, studies in pose, etc., will be profusely scattered through the volume, and EVERYTHING done to make this Magazine SO GOOD YOU CANNOT AFFORD TO BE WITHOUT IT.

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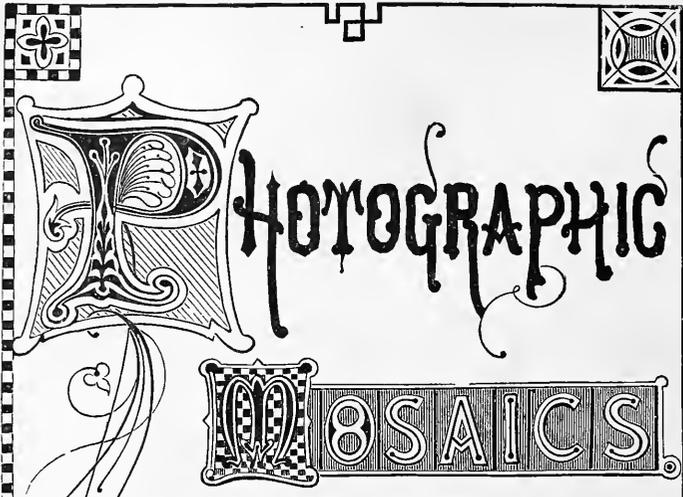
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- How to Make Paper Pliable. J. S. Young.
- A Few Suggestions. J. B. Leisnering.
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- Please Be More Explicit, Etc. Inquirer.
- The Humorous Side. H. S. Keller.
- Lessons of the Convention. M. H. Albee.
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- Profitable Use of Gelatin Plates. Frank Robbins.
- Collodion and Needle-Work. Irving Saunders.
- Tent Photography. H. S. J.
- Scratches from my Scrap-Book. F. C. Phillips.
- Dry-Plate Work. Garvey Donaldson.
- Collodion and How to Mix It. C. S. Roshon.
- Amateurs, or the First Step on the Ladder. J. H. Reuvers.
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- A Few Notes. A. M. De Silva.
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- Why Not? O. Pierre Havens.
- What I Gathered at the Convention. J. Müller.
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SUMMARY OF CONTENTS.

	PAGE		PAGE
Echoes from the Orient. By EDWARD L. WILSON,	161	Spots on Washed Emulsion Plates,	175
Alphonse Poitevin and his Photographic Discoveries,	165	Proceedings of Societies,	176
Pertaining to the P. A. of A.,	169	New Books,	178
Summary of Questions,	170	Photography on Copper,	179
Photographing in the Caverns of Luray,	172	Photographic Experiences in the East. By WILLIAM H. RAU,	181
Gelatino-Chloride of Silver Pictures by Development,	174	French Correspondence. By LEON VIDAL,	186
		German Correspondence. By. H. W. VOGEL,	189
		Editor's Table,	191

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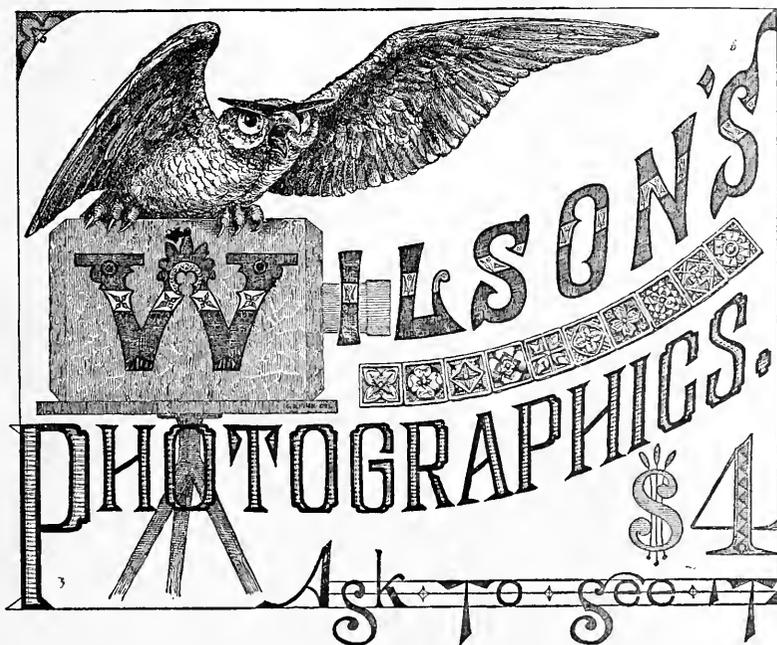


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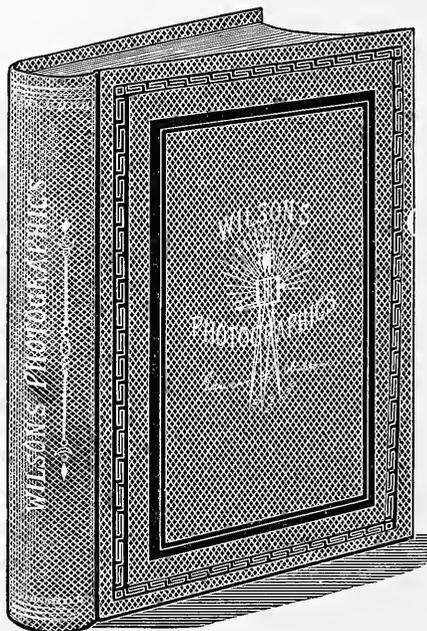
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Accessories and Light.
 Acidifying the Prints.
 Aerial Perspective.
 Albumen for Phototypes, Filtering the.
 Loss of, from the Paper.
 Paper, Defects and Dryness of
 Substratum for Glass.
 Alkaline Sulphides, Test for.
 Alum, Treatment of the Prints with.
 Angle of View possible with a Lens.
 Angular Composition.
 Aniline Blue for Pure Whites in Prints.
 Apparatus, Dry-Plate for Landscapes.
 Arrangement of Drapery, Raphael's.
 Art among Photographers. and Art Rules.
 Principles applied to Photog.
 Artificial Light for Solar Print-
 "Artotypes." [ing.
 Atmospheric Effect.
 Backgrounds.
 Frames for.
 How to Make and Paint.
 Bath, Boiling down the.
 Decolorizing the Printing.
 Fusing the.
 Rectifying the.
 Removing Albumen from the.
 Testing the Strength of the.
 The Fixing.
 The Nitrate.
 Troubles.
 Black and White Negatives.
 Blistering of Prints.
 Blueness of the Film.
 Bold Prints from Flat Negatives.
 Breadth of Effect.
 Brilliancy in a Photograph.
 Bromo-Gelatin Emulsion Work.
 Alkaline Developer for.
 Calculations, Table for.
 Carbutt's Cruet for.
 Chemicals for.
 Development of.
 Drying the Plates.
 Exposure of.
 Fogging of.
 Fringing of.
 Intensifying.
 Printing.
 Rapidity of.
 Reducing.
 Retouching and Varnishing.
 Spreading the Gelatin.
 Strengthening.
 Washing.
 Burnishing the Prints.
 Camera, Care of the.
 How to tell a good.



Card-Board, Cockling of the.
 Cheapness.
 Chemicals and Solutions, The.
 Chemistry of Out-Door Formulæ.
 Chiaro-Oscuro, or Light and Shade.
 Chloride of Gold, Saving.
 of Silver, into a Metallic State.
 Clouds and Sky, The.
 in Out-Door Views.
 Printing in.
 Collodion Bromized.
 Changes.
 Double Iodized.
 for Hot Weather.
 for Interiors.
 Intense.
 Out-Door, Water In.
 Troubles.
 Collodion Transfers.
 Coloring.
 Gelatin Paper for.
 Iodizers for.
 Printing.
 Collodionizing the Plate.
 Color, Good, Printing for Negatives.
 Composition, Angular.
 Circular.
 Pyramidal.
 Concluding Confab.
 Contraction and Expansion of
 Paper.

Contrasts, Violent.
 Correctness and Comparison.
 Curtains for the Studio.
 Dark-Room, The.
 Dark-Tent, The.
 Defective Toning of Prints.
 Defects and Dryness of Albumen Paper.
 Dense Negatives, Printing.
 Developer, The Iron.
 The Iron and Ammonia.
 Development, The.
 Best Rule for the.
 Diaphragm.
 Use of the. [Printing.
 "Doctoring" Negatives for
 Drapery, Raphael's arrange-
 ment of.
 Drying-Box for Phototype
 Plates.
 Cupboard for Emulsion
 Plates. [Plates.
 Cupboard for Phototype
 Oven for Phototype Plates.
 Room, The.
 the Paper.
 the Prints.
 Vogel's Collodion Emulsion.
 Education of Photographers.
 Effect, Breadth of.
 Effects, Brilliant.
 of Light.
 Encaustic Paste for Prints.
 Enlargements and Lantern Slides.
 Enlarging Carte-de-Visite Nega-
 tives.
 Exposure for Phototype Plates.
 for Platinotypes.
 of Bromo-Gelatin Plates.
 Shortening.
 Time of.
 Eye, Education of the.
 of the Sitter.
 Faces, The Study of.
 Fading of Prints.
 Ferrous-Oxalate Developer, The.
 Field Work.
 Figures in.
 Foreground Study in.
 Film, Blueness of the.
 Weakness of the.
 Filtering Albumen for Phototypes.
 Gelatin for Phototypes.
 Finishing and Mounting.
 Fixing.
 Flat Negatives, Printing.
 Flatness and Want of Contrast.
 Fogging.
 Formation of Network on the Film.
 Fumes, Poisonous.
 Fuming the Paper.
 Fusing the Bath.
 Glace Prints.
 Glass, Preparation of the.
 Studio, The.

Gold Toning-Bath, Treatment of the.
Gun-Cotton, The.
Hands, The.
Stains on the.
Harmony.
Horizontal Lines.
Husnik's Process for Phototypes.
Intensifier, The.
Ammonia and Mercury.
Bichloride of Mercury.
Ferrid Cyanide.
Iron and Acid.
Perchloride of Iron.
Permanganate of Potash.
Pyrogallic Acid.
Schlippe's Salts.
Silver and Acid.
Interior Work.
Kaolin, Rectifying Printing-Bath with.
Landscape Apparatus.
Photography.
Views, Formula for.
Lantern Slides and Enlargements.
Leaking of the Glass Studio.
Lens or Objective, The.
Lenses, Angle of View Possible with.
Choice of.
Forms of.
Light and Accessories.
and Shade, or Chiaro-Oscuro.
Reflected.
Lighting, Rembrandt's Style of.
"Lightning" Processes.
Linen, Printing on.
Lubricating the Prints.
Managing the Model.
Manipulations, The.
Manipulatory Miseries.
Marbled Appearance of the Paper.
Red Lines on Prints.
Mealiness in Prints.
Measles or Mottles on Prints.
Measuring Metrical.
Medallion Printing.
"Megatypes."
Metallic Spots in Prints.
Model, Study the.
Mounting and Finishing.
Paste.
without Cockling.
Nature, Study.
Negative, A Generally Wretched.
Negatives, Black and White.
Defects in.
"Doctoring" for Printing.
for Solar Printing.
Preserving of.
Printing Dense.
Printing Weak.
Removing Stains from.
Network, Formation on the Film of.
Objective or Lens, The.
Objects, Distances of.
Only Lines in Negatives.
Opaque for Negatives, Gihon's.
Outside Photography.
Chemistry of.
Work, Art Principles in.
Work, Clouds in.
Work, Exposure.
Work, Keeping Plates for.
Work, Tent for.
Over-Exposure of Bromo-Gelatin Plates.
Paper, Cockling of the.
Drying the.
Expansion and Contraction of.

Fuming the.
Keeping White the.
Marbled Appearance of the.
Sensitizing the.
Woolliness of the.
Paste for Mounting.
Patches and Stains on Prints, Yellow.
Perplexities, Printing.
Perspective.
Photography, Landscape.
Phototypes, Basis for.
Exposure of the Negatives for.
Husnik's Substratum for the Plates for.
Inking the Films for Printing.
Pinholes.
Plain Paper, Printing on.
Platinotypes, Sensitizing the Paper for.
Cleaning and Washing.
Development of.
Exposure of the Paper.
Poisons.
Porcelain, Printing on.
Posing, Suggestions about.
Preserving Negatives.
Printing, Art in.
by the Solar Camera.
Dense Negatives.
Development Process of.
Flat Negatives.
Medallions.
on Albumen Paper.
on Various Surfaces.
Stereoscopic Views.
Temperature in.
Vignettes.
Weak Negatives.
Printing-Bath, The.
Decolorizing the.
Strengthening the.
Printing-Room, The.
Prints, Acidifying the.
Blistering of the.
Burnishing the.
Defectively Toned.
Drying the.
Encaustic Paste for.
Fading of the.
Fixing.
Glaze.
Imperfect Washing of the.
Lubricating.
Measled or Mottled.
Metallic Spots in.
Refuse to Tone.
"Spotting" the.
Touching Out.
Treatment with Alum of the.
Trimming.
Warm-Water Washing of.
Washing in "Lead Water."
Washing the.
With Red Marbled Lines.
Yellowness of the.
Productions of Photography, The.
Public, Relation of the Photographer to the.
Pure Whites in Prints.
Quick-Acting Processes.
Red Patches on Prints.
Reducing Process for Solar Negatives.
Reinforcing the Negatives.
Rembrandt's Style of Lighting.
Removing Stains from Negatives.
Retouching Bromo-Gelatin Plates.
Process, Solar Negative.
the Negatives.

Reversing the Negative, Apparatus.
Robinson's Print Trimmer. [for Screens and Curtains.
Sensitizing Paper for Platinotypes. the Paper.
the Plate.
Shortening the Exposure.
Silver Iodide, to make.
Saving, Method of.
Solutions, Volumetric Test of.
Sky and Clouds, The.
Softness in Lighting.
Solar Camera Printing.
By Artificial Light.
Camera Printing Negatives, retouching.
Negative Reducing Process.
Retouching Process.
Stains from Negatives, Removing. on the Hands.
Stereoscopic Views, Printing.
Negatives Preparing.
"Stop," Use of the.
Streaks and Stains in Negatives.
Strengthening Gelatin Emulsion Plates.
the Printing-Bath.
Studio, the Glass.
Construction of the.
Curtains.
How to Build a.
Leaking of the Glass. with Curved Light.
Working Plans for Construction.
Subject, Choice of.
Treatment of.
Table for Converting Centigrade into Fahrenheit.
for Converting Cubic Centimetres into Ounces, etc.
for Converting Metrical to Troy Millimetres into Inches, etc.
Temperature in Printing.
Tent, The Dark.
Testing of Silver Solutions.
Toning the Prints.
Bath, Treatment of the Gold.
Defective.
Solutions.
Touching out Prints.
Transfers, Collodion, Iodizers for.
Coloring.
Developer for.
Fixing.
Gelatin Paper for.
Printing.
Transparencies, Bromo-Gelatin. for the Magic Lantern, To make.
Treatment of the Subject.
Use of the Diaphragm.
Varnishes and Varnishing.
Ventilation of the Dark-Room.
Views of Interiors.
Collodion for.
Exposure for.
Figures in.
Light for.
Selection of.
Vignette Printing.
Paper, Waymouth's.
Printing Attachment, Singhi's.
Vogel's Collodion Emulsion.
Warm Water for Washing Prints.
Wash-Room for the Prints.
Wastes and their Worth.
Waymouth's Vignette Papers, Use of.
Weakness of the Film.
Woolliness of the Paper Surface.
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(OVER.)

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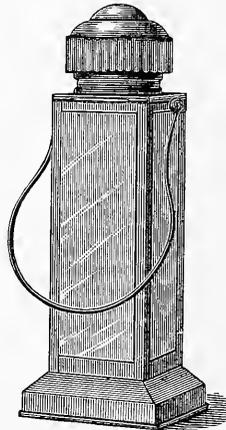
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[See next page.]

THE SCOVILL DRY-PLATE LANTERN

PRICE, \$1.50 EACH.

Designed especially for use by the photographer or amateur in the dark-room, when developing plates and putting them in the plate holders. Guaranteed, when lighted and closed up, to throw out nothing but ruby rays. It has sixty-three square inches of glass, through which enough light shines to enable the occupant of the dark-room to watch the development of the largest size dry-plates made, and at the same time to see the chemicals and everything used in manipulation. The illustration here presented conveys a good idea of the lantern when closed.



In height the Scovill Lantern is a trifle over twelve inches, and is four and a half inches square. Each corner is protected by a strip of metal, which acts as a double safeguard. It not only prevents white light from the inside stealing out there, but it also keeps the four panes of ruby glass from any ordinary risk of breakage. For the latter reason the Scovill Dry-Plate Lantern is a great improvement over lamps with ruby chimneys, which, being unguarded, are so easily cracked or broken, and such a trouble to replace. In point of safety this lantern is infinitely to be preferred to a lamp of any style. By patented devices the top vent and the lower draft holes are so constructed that no white rays can escape through them, and thus the lantern is perfected for use in the dark-room.

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It requires only to be kept in oil.
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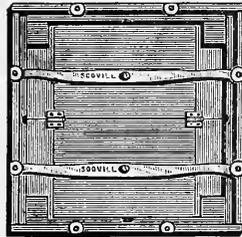
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Suppose the negative of a standing figure to have been placed in the Atwood Frame and the back put in with the springs parallel to the length of the subject. Either half of the backboard can be opened and thrown over on the other, in this manner allowing such an examination of the print as to show a view from the head to the foot.

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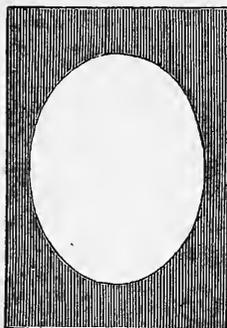
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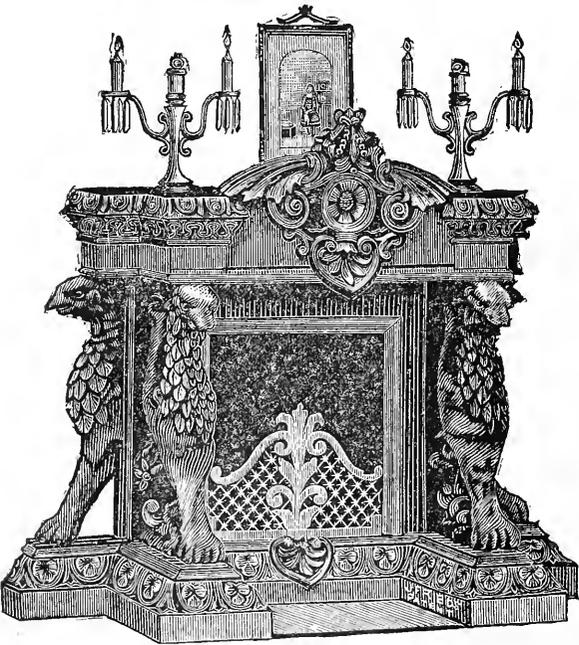
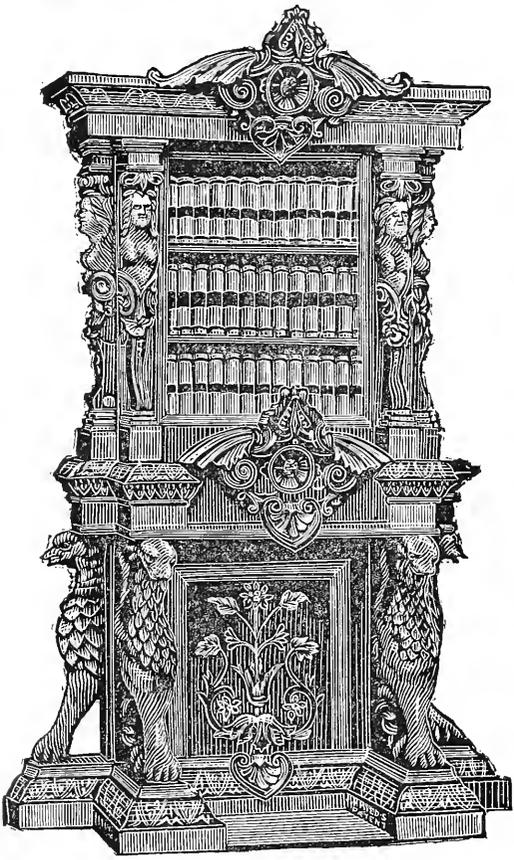
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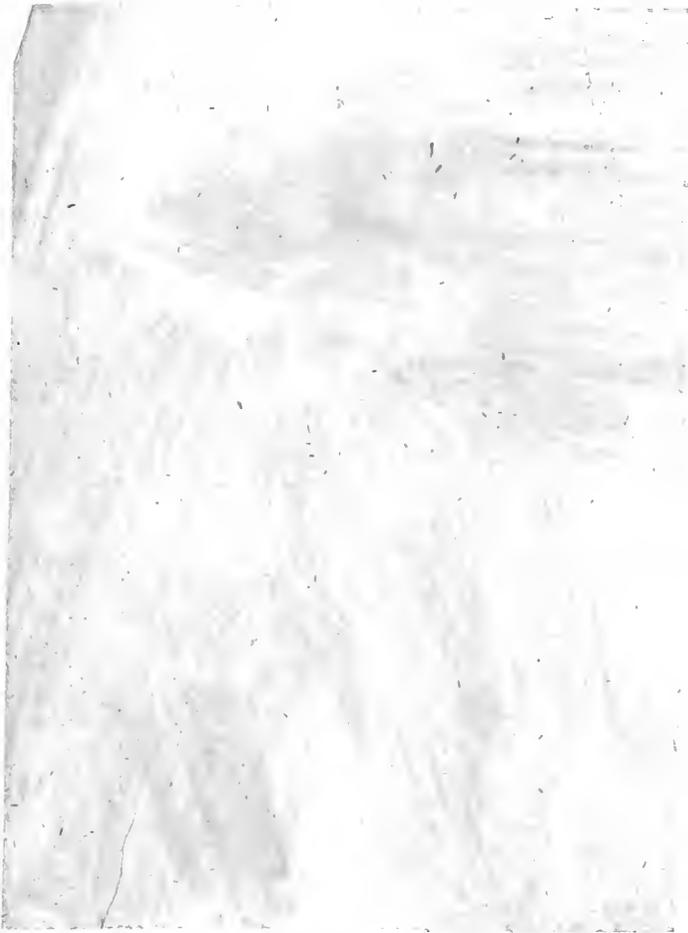
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Philadelphia Photographer.

EDITED BY EDWARD L. WILSON.

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ECHOES FROM THE ORIENT.

THE visitor to Egypt, in order to obtain a proper sense of the true inwardness of the country, must make the journey of the Nile as far at least as to the first cataract—better to the second. The dahabeeah is a slow means—by steamer is best. The service is fair, and I have had to eat worse provender on the Juniata Canal.

We left the *Kasr-en-Nil* one morning at ten o'clock, and soon Cairo was behind us, far and forgotten, and the pyramids of Sakkarah were commanding our attention. Presently we halted near them, took to the donkeys, and rode over a pretty bit of country to see them. On the way we halted at the site of ancient Memphis. Saw Sesostris lying, face down, in a puddle of holy Nile water, and meditated upon the "Museum," whose walls are corn-stalks and whose "collection" has been depleted by those who have looked upon this country heretofore as a good place to steal from. Then Sakkarah's "step"-pyramid, with its neighbors, those of Daslloor and the tombs of Thi, came in for a share of admiration, after which we scampered back to our steamer and proceeded with our journey, amid the shouts of the Arabs on shore.

Denderah's Temple was the first one we saw, and a noble one it is, too. It cost a goodly donkey ride, too, and it was a pretty sight, early the second morning, to see our fellow-tourists and their attendants coming over

the fields, as I saw them from the temple walls. I had gone on an hour earlier, in order to give the camera the advantage of the early sun upon certain details of the temple. I shall never forget Denderah, because it was the first of the temples to give me an idea of those wondrous structures of the past. It is in better condition, too, than most of them, and from the propylon to the inner sanctuary gives one a satisfactory idea of the construction of the Egyptian temple of old, which is everywhere, in general plan, much the same. First comes the propylon which you enter, almost fearing that it may tumble down upon your head; then you stand amid the great halls of columns which more than cause you to tremble at their stately dignity and beauty; then the inner temples follow with their numerous ante-chambers and the sanctuary, and from them spring the long, high, winding stairways which lead you up and down, to and from that most holy of all places, where the king was wont to meet the gods in closest secrecy. No light enters but from diminutive apertures in the roof and the small loop-holes in the walls, for Denderah has a roof, too, of closely-fitted stone, and upon that roof the remains of an ancient village still stand, giving a grand contrast which would not otherwise be enjoyed. The débris of other towns still bring Denderah half its height, but the interior has all been cleaned out, and a

wicker-gate, with its Arab keeper, shut away the *backsheesh* beggars, and permitted one to enjoy its grandeur in quiet.

And now we go on and on, stopping at each antique attraction on the way, until the wondrous rock-tombs of Beni-Hassan, with their pictured walls; the curious bazars and the camel market at Assiout; and the temples at Luxor-Karnak, the Theban collection, Esuch, Edfu Assouan, and Philae are all taken in turn and successfully and satisfactorily studied. Each one of the temples has its special attractions, because they are all in ruins and no two consequently are alike, as they would be to a great degree were they in their original condition. The Edfu temple is a very satisfactory one, indeed, inasmuch as it has been preserved almost intact by being covered in by the ruins of old Roman and Arab towns which have been built around and within it, one over the other, until it was completely buried. Fortunate for us that such was the case, and more fortunate that M. Mariette has had it excavated and the débris removed to a distance sufficient to enable the visitor to walk all around the outside and to see all of the internal arrangements as well. The outer wall which surrounded all these temples is likewise preserved in excellent condition, and one may walk over its entire circuit without a break. Moreover, Edfu has but little roof, and, standing upon the top of the propylon, one may have a perfect temple-plan before him, which shows the interior construction of a temple more satisfactorily than it can be seen at any other place.

We made fast to the Nile shore at a little after sunset. The moon had reached the glory of its second quarter, and Edfu was only twenty minutes' donkey-ride away. Why not see it by moonlight? And, praised be Osiris, we did. It was a glorious sight. Its great propylon was in full view, and reflecting the moonbeams back towards us seemed to intensify the light until we looked upon its vast shadows on the left, as we neared it. Mounted upon its top, soon after, the Arabs all shut out by the official at the gate, the whole construction was outspread at our feet. That glorious area, lined with massive columns, among which

the moonbeams flirted and cast the shadow of one bold capital in fantastic profiles upon its neighbor; the temple proper, with its rich variety of monstrous towers, whose lotus-flowered capitals opened toward their only roof, the sky; the sanctuary and the cells, and the stairways and the perfect inner and outer walls, with their rich stores of pictures; the solemn stairways intruded upon by the stray beams which were driven by the moon through the ventilating channels; the bits of rich color caught in the light here and there, thousands of years old, and yet as rich and brilliant as new, all made up a rare picture which nothing but Edfu and the Egyptian moon can produce.

And yet how unhappy some of us were made by some wretched fellow-passengers, who had evidently "been here *befawah*," and who had "travelled," and who had "studied art," and whose criticisms were given for our benefit, and too readily taken up by the Edfu echoes and scattered throughout its tremendous recesses. *She* was comparatively decent in her expressions, but *he*—oh! Isis and Hathar and Ra, what a donkey he was! For example, there was a column whose great girth and wondrous height and florid capital were *perfect*, and next it a dozen others, each one different from the first. *Then he to her* :

"It seems to me, Maria, that for beauty of conception, depth of genius, originality of focus, and concatenation of event, that this lotus column is far inferior to those of papyrus we saw at Denderah."

She : "Oh, no, Robert, dear; it is the moonlight.

He : No! no! look at the broadness of detail and the conglomeration of lines here, to say nothing of the intense variety of shadow display. How immensely beastly that is."

She : "Yes, love, but certainly you must admit that without the *moonbeams* there would be no intensity of shadow or breadth of light."

He : "Yes, you are right; and yet for purity of feeling and loftiness of determination and facility of invention, to speak nothing of the very elevated ideality of the

whole, why, you know, I would much prefer the architectural conglomerations of an earlier dynasty."

And so this fool's tongue ran on faster than we could get away from him. Soon, however, by superior donkeymanship, we dusted him as we scampered ahead through the rice fields and lentil patches to the steamer again. Half the village had turned out to attend upon us, and to see that our donkey boys did us justice. Two noble sheiks with flowing robes and palmwood batons voluntarily marched in front, and every hundred yards was added another man, or boy, or girl, per yard to our cortege. Whence they all came, no one could see or tell. As we rolled on they gave roundness to our train, as, when in boyhood, rolling down a snow-bank you increased the corpulency of your person. They appeared like locusts from the land, like ants from a hill—fly up before you like reed-birds from a marsh. And each one as he comes, brings, instead of a twitter or a chirp, or a cheerful song, only a cloud of dirt and a cry for *backsheesh*.

The next day we did the thing over by sunlight, and went into the details fully. Edfu lost none of its charms by a more intimate acquaintance. As some men and some books grow upon you and excite your admiration more and more as you study them, and cause you to think more of them and value them more exceedingly, so does Edfu, the grand, the glorious, the most satisfactory and perfect of its family. It is 450 feet long, and at the propylon 250 feet wide and 115 feet high. I cherish the memory of the Ptolemy Philometer who gave it to us. As I went up the winding stairways of the propylon and the long reaches of the temple, I could follow him in my mind as he was wont to go alone through the whole routine, performing his rites and mysteries, on his way to the sanctuary to meet the gods alone, there to make known his wants, and there to hear the answers to his prayers, for his petitions were never refused. And standing upon the propylon, looking down upon the village whose walls are quarried from the Nile mud, whose cornices are but twigs sticking out for the guano pigeons to roost upon, and whose

inhabitants have all the spirit and dignity and cleanliness crushed out of them, I could not help but contrast it all with the day when the proud and polite Ptolemy was crowned. He was but twenty-three, then, and all that was costly and dazzling and curious, all that wealth and gratitude and patriotism could devise—so these pictured walls tell us—was brought to give *éclat* to the grand occasion. The Osiris ritual provided the programme, and the austere Sileni in purple and scarlet robes, pushed aside the crowd. Then followed satyrs with torches, victories with wings of gold and golden staffs twined about with ivy; then the altar was brought along attended by a hundred and twenty boys gorgeously clothed, each one swinging a bowl of incense, costly and rare. Then forty dancing naked satyrs, with bodies painted after the colored robes of the Sileni who followed, attended by a train of beautiful women, and poets, and philosophers, and priests, with all the servants of the god; then the prizes to be given in the wrestling matches, and a four-wheeled chariot bearing the statue of Osiris, who poured out wine for the consolation of the lookers-on, who filled their drinking cups, unless they preferred to accept the gift of Isis, who followed with a cask of wine whose color was as rich as her scarlet robe. Now sixteen hundred dancing boys with golden crowns; chariots of the gods drawn by elephants; goats and gazelles, and ostriches and stags; men of Ethiopia; troupes of dogs; flocks of pigeons tied to trees; parrots and other beautiful birds; sheep, bulls, bears, leopards, panthers, a camelopard, and a rhinoceros. Now Bacchus rides along in a chariot, running away from Juno, and flying to the altar of Rhea; then we see the statues of Alexander and of Ptolemy Soter, father of the young king, and by their side statues of Virtue, of the god Chem, and of the city of Corinth, and of the conquered cities of Iona, Greece, Asia Minor and Persia. Then came crowds of singers and cymbal players, and two thousand bulls with gilt horns, crowns, and breast-plates. Anum Ra and other gods led the next section, and wagons of gold and silver, and vessels of Eastern scents were protected by fifty-seven

thousand foot soldiers and twenty-three thousand cavalry. The procession began moving by torchlight before the break of day, and it had not all passed a given point even when the after-glow of sunset had faded away. Come read the stone-story for yourself, pictured deep upon the temple walls. Since visiting Edfu I find myself using it to supply what lies in ruins at other temples. They are all beautiful, and their architects knew what they were about. The want of wood caused them to make good use of their quarries, and they borrowed their thoughts from no one. In grandeur their productions excelled anything that had been seen previously. They were men whose calling it was to do honor to the gods, and to raise heavenward the thoughts of their fellowmen, and they undoubtedly appreciated the dignity of their calling. Their works still stand as the world's models for solemn grandeur in architecture, and the architect who tries to "improve" upon them usually misses it, as some of the attempts familiar to us all prove.

I may not take your time to tell of *all* of the glories of architecture I have seen here, or of how the great quarries were worked; what engineering skill was displayed in lifting the huge blocks into place, or of the men who worked so hard for their religion and their own honor. History details it all, and you have not the space for even a tithe. These old structures all show how they have been used as temples, forts and monasteries, and their sculptured walls and columns tell even more than a life could read.

At Karnak the ruins are far more extensive and the variety perhaps the richest in Egypt, for there is the unrivalled hall of columns; the oldest and largest obelisk in the world, the smaller obelisk; the hall of Osiride columns; the avenues of sphinxes; the picturesque "bits;" a first, second, third, and fourth propylon; several halls and temples, in one of which the cornices and capitals are reversed, and, as a whole, the most extensive group of ruins in the land, which can be seen each afternoon *doubled* in the walled lake of ablutions near by.

The old temple of Luxor is so imbedded by adobe buildings, and built in by a gaudy

mosque, that one can hardly see it. Messrs. Maspero and Brugsch are now busied there buying up these houses, with the intention of clearing them out of the way and setting the ruins free. The obelisk of Luxor, though one-fifth in the ground, is the most beautiful of all.

Two of the most enjoyable days I have had were at Thebes. How a part of one of these was employed with Colonel Brugsch, I mentioned in a former letter. The tombs of the kings and queens were visited in number, wondered at, and made, by magnesium light, to give up to photography of the rich treasures of their walls. They are under a most picturesque chain of mountains, the Bab-el-Molook, so bare, rugged, desolate, and dismal, and full of dead men's bones. No greater contrast could be imagined than this vast, naked necropolis, compared with our own lovely Laurel Hill, so beautified with trees and plants and flowers and monuments and love-tokens. I soon grew tired of them, and devoted myself more particularly to the temples, after partaking of lunch at the entrance of one of the tombs with a party of "Cook's" tourists.

The temples of Koorneh, Amunoph III., Medeenet-Haboo, and the Memnonium or Ramesium were all conscientiously attended to, and much enjoyment and information gathered from them, the latter being the most interesting and extensive. During all our journeyings here, each day a group of bright-eyed, pretty-toothed little girls would meet us on the boat (which ferried us over and brought our donkeys from Luxor) with water-bottles on their heads. They greeted us with "Good-morning, jaintelman—good girl—good jaintelman!" "Fatimah" captured me by her amiable manners, and was my constant and devoted attendant every day. She was necessary, too, for no water is to be had in these barren deserts nearer than the Nile. And so, wherever my donkey took me to, Fatimah was sure to go. I frequently offered her a ride, but her cheerful answer always was, "No, jaintelman; me *not* tired; *good* jaintelman." I believe that neither this bright, pretty, dirty, sociable little Arabess ever owned a pair of shoes or slippers; nor did her ancestors for several generations back. The

universal foot here is proof against damage by the broken flint and fragmentary limestone which covers the trails, and is born with a *sole* which resembles a crocodile's back. I have a sharp photograph of two or three pairs of these fire- and water-proof feet, and hope to realize on them when I return home by disposing of copies of them to our best wall paper and carpet manufacturers for eccentric patterns for their productions for the coming season. They are a little irregular for plaids, but would do for crests, trademarks, and cartouches, I am confident.

It is very funny to see the Arab-guides load and unload their donkeys. From Luxor to Thebes we have to cross two islands or wide sand-bars. The donkeys are needed on the other side, and, as the boats cannot quite reach the shore, the little intelligent fellows are obliged to jump out from, and jump into, the boats. Some tremble at the hazardous work, and others dive right in. Their motions are very funny, especially if they happen to strike their heels on the edge of the boat and pitch head first into the mud and have to be pried out. The human beings are carried on Arab-back, dry shod.

Each night as we returned from Thebes to Luxor we passed the two colossal statues of Amunoph III., and just as the departing rays of the sun caused them to blush at their imprisonment—their inability to move as the sun and even the dusky Arabs who swarm the neighborhood. There they sit, side by side in the plain, meek, motionless, speechless, in solemn, quiet grandeur, as though all things were passing away but them. Sixty feet up in the air they reach; and while an Arab *backsheesh* beggar climbs up into the lap of the one called the "Vocal Memnon," and plays the old trick of the "antique" priests over again by making the statue "sweetly sing," by pounding on the resonant sand-stone, one's mind goes back to the day when no such indignity would be allowed. What stories these white Theban hills could tell! How lovely is the sky! How rich the rice-fields! How dreamy everything is! What lovely monochromes break up the horizon! How pale the moon is! How chilled everything has become since the sun shied behind the

tombs! How the wheels of the Sakiyehs squeak! how the sheep bleat and the camels growl! There is a bit of sunlight yet on the tip of the great obelisk at Luxor—the prettiest of its family—and we must scamper, for "the night air is not goot for de jaintelman," says Fatimah. Booh! how cold it is. "Good night, good little Gairl. Come to-morrow."

EDWARD L. WILSON.

ALPHONSE POITEVIN AND HIS PHOTOGRAPHIC DISCOVERIES.*

THIS dissertation is not what might be generally called a biographical notice. It is not our intention, at least for the present, to pass in review the divers phases of the life of Alphonse Poitevin; it is his photographic work which more especially will occupy our attention. It is in this branch of applied science that he made himself known by discoveries of the very greatest importance, discoveries of the most pregnant character, since they have formed the starting-point of the most important applications of photography to industrial prints, and at the same time to the production of permanent photographic images.

From the start, Poitevin had especially in view to do away with, by new processes, those prints of more or less durability which formed the ordinary photographic work. At that time, as is frequently the case at present, photographers made their positive prints by successive exposures on paper made sensitive by chloride of silver.

The image formed by reduced silver, notwithstanding a coating of gold which certainly adds to the solidity, is, as unfortunately we have too often occasion to know, liable to undergo, sooner or later (especially if exposed directly to the action of air and dampness), a gradual deterioration until it becomes entirely destroyed. The idea of Poitevin was to seek a remedy against these disastrous results. He was convinced, and thus in accord with all the friends of photography, that this art would never

* A lecture delivered before the Paris Syndical Chamber of Photography by M. Léon Vidal.

become truly important, truly useful and worthy of being placed in the first rank of the graphic arts until it was capable of producing works as durable as those made by the engraver.

One substance alone, carbon, presented the necessary qualities of permanency; it is the one which serves as a basis in the making of engravings and typographic prints. The object to be attained was to find a process for printing photographs by the aid of carbon, and this, after persevering investigations, Poitevin succeeded in doing, not only by his two *carbon* processes, but by several other ones still more practical, since they do away with any further action of the light after a single exposure.

The work of Poitevin comprises, then, two distinct and important results:

1. Permanence of photographic prints.
2. Mechanical impression of these prints.

As to the processes themselves, the number of those that he foresaw was very great, and the door still remains open, thanks to his discoveries, for a number of new and interesting investigations. We will confine ourselves, at first, to the mention of his principal processes which are now in use, and the practical working of which is daily becoming more common in the photographic world. These are:

1. The carbon processes.
2. Helioplasty.
3. Impressions with fatty ink.
4. Impressions with iron salts.

We intentionally omit, because these processes are not in actual use, those that he discovered and published for photochemical engraving; for the transformation of daguerrotypes into negative clichés, and their multiplication on paper prepared with chloride and nitrate of silver; for the use of gelatine in photography on glass; for a direct process by continuation on collodion for obtaining immediately in the camera positive prints intended to be used as transparencies; for the use of a nitrate collodion process, namely, a collodion emulsion process; and finally for an enlarging process.

We may mention as an example taken from the great number of his methodical investigations, his splendid work relating to the action of light upon a number of

chemical compounds, his interesting investigations on the action of iodide of potassium which, under the influence of light, destroys the effect produced by the first exposure of the sensitized collodion films. In this connection, he has shown, and pardon us this succinct nomenclature, that:

Cyanide of potassium is very active; iodide of potassium is rather less so; bromide of potassium acts but very slightly; chloride of sodium is without action; cyanide, saturated with iodide of silver, acts very well; iodide and bromide of potassium, saturated with iodide of silver, act very slightly; neutral chromate of potash is without action; bichromate of potash has a decided action; the same, acidulated with sulphuric acid, acts very promptly; sulphuric acid, diluted with water, is without action; hydrochloric acid, diluted with water, has a very decided effect; iodide of potassium, with excess of iodide, acts under the influence of light; the vapor of iodine completely destroys the effect of the first exposure.

As he says in his treatise relating to these different experiments, a vast field is opened by these simple observations to the investigations of experimenters, as these investigations can lead to the discovery of a vast number of reactions that are yet unknown.

When we peruse attentively the different chapters of his *treatise* on impressions without silver salts, and especially the second edition of this work, now in press at the publisher's, Gauthier-Villars, we are struck with the numerous ideas which filled the brain of the eminent scientist.

This book, which is but a too short compendium of all his investigations, cannot be too much read and too much commented on; at each page we find a new inspiration, which, converted into an applied process, might serve as a basis for a practical method of great usefulness in the art of graphic impressions.

Poitevin foresaw the possible applications of this or that reagent; he even pointed it out with great sincerity, leaving to others the advantage to be derived therefrom.

There is, therefore, much to learn in a work which, although small in volume, is, nevertheless, large in facts and fertile ideas.

The future will prove the truth of what we now affirm.

The first experiments made by Poitevin, the making of positive prints on paper by means of inert colors mixed with a substance first soluble in water, and which loses this property under the simultaneous influence of an oxydizing body and of light, date from the first months of 1855; and his patent, which relates to the applications resulting from this discovery, was taken August 27th of the same year.

It was only in the following year, in 1856, that the prize of two thousand francs was offered by the Duke of Luynes to the inventor of a photographic process leading to the obtaining of permanent prints.

"Carbon," said the programme of this competition, "is, of all known substances in chemistry, the most permanent and unchangeable. It is, therefore, evident that if it were possible to produce the blacks of a photographic print by carbon, we would have, for the preservation of prints, the same guarantee that we have for our printed books, and this is the greatest that could be hoped for and desired."

The Committee of the French Photographic Society, appointed to select the candidates for the prize of the Duke de Luynes, was composed of Count Aguado, and Messrs. Bayard, Ed. Becquerel, L. Foucault, Paul Perrier. The following are the names of the competitors: Messrs. Testud de Beauregard, Garnier, Salmon, and Pouncy.

It is interesting, in order to form an exact idea of the superior claims of Poitevin, to resume in a few words the terms of the report (1857) of the committee concerning each of these competitors, among whom we do not find Poitevin.

Mr. Testud de Beauregard offered a paper sensitized by bichromate of potash; after a long exposure to light the paper was to be washed in ordinary water, exposed under a cliché, and then placed in a solution of protosulphate of iron, then washed again, and plunged into a bath of gallic acid and water. This was a kind of impression with gallate of iron, and the results obtained were far from being satisfactory.

Messrs. Garnier and Salmon offered the well-known powder process, in which the

action of light is directed upon a film formed by a solution of sugar in water with the addition of bichromate of ammonia. The albumen was then added to this mixture, which, spread very equally on the paper, was rapidly dried, and again exposed to the light under a positive cliché. After a suitable exposure, the coating was dusted with ivory black in an impalpable powder. This powder attached itself to the non-exposed portions, abandoning the others. This being done, the sheet was plunged into water, the image on top, in order to free it from the bichromate which had remained soluble. The definite result was an image, which, although yet imperfect, offered the remarkable feature of complete stability. Here we have a carbon process worthy of all our interest.

In regard to the process of Mr. Pouncy, it was very similar to that of Messrs. Garnier and Salmon, with this difference, however, that he used a negative as the reproducing medium. This was still another process leading to the obtaining of durable photographic prints.

After having made a separate examination of each of the above-mentioned processes, the sub-committee made the following report:

"The examination and comparison of the divers systems under consideration have united all the members of the jury in a spontaneous impression, extending our deliberations beyond the narrow limits of our mandate. The first and common source, the unique germ of all the processes among which we have designated those which appear worthy of reward, that is to say of all the *carbon* processes, is incontestably that of M. Poitevin, and, in consequence, the father of all these inventors is M. Poitevin.

"A few words will suffice to convince you of this: As early as August, 1855, M. Poitevin deposited with the *Préfecture de la Seine* the description of a photographic printing process. On the 15th of February, 1856, he brought it to you after having made some changes. What was, as far as the paper is concerned, this method when reduced to its simplest form?

"In August, 1855, application to paper of a mixture of bichromate of potash, an

organic substance, and a coloring matter, the whole at one time before exposure.

"In February, 1856, application of the same substances, but in two operations, namely: the bichromate and the organic body before, and the coloring matter and carbon after exposure. In both cases washing in pure water to finish and fix the print."

In the first case, it was the question of producing a print with carbon or with any other inert color mixed before, and held afterwards by the organic matter which had become insoluble; whilst in the second case, there was the question of fixing the carbon in the state of the fatty ink of the printer. The report continues:

"If we now follow the chronological order of the presentations, what do we see?"

"In December, 1855, Mr. Testud de Beauregard makes known to you a process which may be briefly described as follows: Use of bichromate of potash, of an organic body, and carbon. Previous immersion of the paper in the mixture of the bichromate and the organic body, drying, then spreading on of the carbon. After exposure, washing in ordinary water. The manipulation alone varies; the principle is identical.

"In January, 1858, Mr. Sutton, in the *Photographic Notes*, gives a process for obtaining durable positives; this again, and doubtless without his knowledge, is precisely the process of Poitevin: Application to the paper of a mixture of bichromate of potash, organic bodies, and pulverized charcoal, drying, exposing, and washing. Mr. Sutton, for his part, adds an alkaline solution to clear the image if necessary.

"The patent obtained by Mr. Pouncy, April 10, 1858, may be summed up as follows: Application to the paper of a mixture of bichromate of potash, gum arabic, and vegetable charcoal; then afterwards washing in pure water.

"Finally, June 30, 1858, Messrs. Garnier and Salmon deposited a sealed envelope describing a process in which the use of the alkaline bichromate of an organic body and of carbon, reproduces with more or less important variations, a series of causes and effects, which preserve their invariable character in the work of M. Poitevin.

"So that it may be truthfully said, that if M. Poitevin had not existed, that each one of these gentlemen would have invented it.

"Is it possible, we ask, in presence of this severe but impartial analysis, to ignore that these processes, coming from different sources, all bear, so to speak, a common mark? And if some of them have been sealed with the stamp of honor, and so gone forth into the photographic world, certainly we ought to mention the name of the *initiator*, and that too in the very front rank.

"This is really the end that we had in view, feeling that our conscience would trouble us if, in the distribution of rewards, M. Poitevin were forgotten, Poitevin who sowed whilst others would gather the crop.

"It is true that M. Poitevin was not a competitor, and that he doubtless held in reserve all the weight of his merit, to throw it into the scale that we shall have to hold next year.

"In short the report concluded by awarding a gold medal, valued at six hundred francs, to M. Poitevin; the silver medal, of value of four hundred francs, to Messrs. Garnier and Salmon, and a similar reward to M. Pouncy."

We have given the greater part of this interesting report in order to fully establish from the beginning of our address, the incontestable right of Poitevin to priority in the use of bichromatized and colored gelatine for making permanent photographic prints.

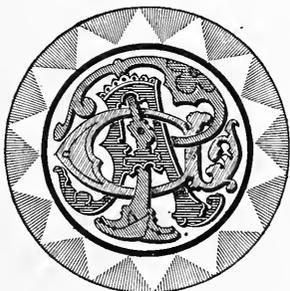
This was the starting-point of the *carbon* process, properly so called. This process has since been modified by some experimentalists, who have rendered its application more easy and practicable; but these improvements in the details detract in no manner from the merit of the one whom M. Paul Perrier so justly calls the *initiator*.

Further on we shall have to speak of the second carbon process discovered by Poitevin. But let us come to the mother invention, to the truly fertile application of carbon prints—photo-lithography.

(To be continued.)

WANT of space compels us to lay over a valuable article by Mr. Beebe on the use of hyposulphite of soda in the oxalate developer.

PERTAINING TO THE



An adjourned meeting of the Indianapolis photographers was held on Saturday evening, April 22d, at the photographic ware-rooms of Messrs. H. Lieber & Co.

The President being absent, the meeting was called to order by the local secretary.

On motion of Mr. F. M. Lacy, Mr. J. Cadwallader was elected to the chair *pro tem*.

The President on taking the chair announced the meeting ready for business.

By consent, reading the minutes of last meeting was dispensed with.

Mr. W. H. Potter arose and said that he desired to make a personal explanation. A remark which he had made at the previous meeting, "that the photographers of this city owe a duty to the Photographers' Association of America, as well as to themselves, and should not allow any one to stand between them," was not intended to reflect on the Secretary of the Photographers' Association of America, and hoped he was not so understood.

The Secretary, Mr. J. Cadwallader, said he did not so understand it.

After some discussion as to the committee that should be appointed, and the various duties to be assigned to each, Mr. F. M. Lacy moved that we appoint to-night a committee of five, to be known as a reception committee, with power to add to its numbers, and that the selection of this committee be made by the chairman of this meeting. Motion adopted.

The President named the following gentlemen as a committee on reception: Mr. W. H. Potter, Mr. L. D. Judkins, Mr. W. B. Potts, Mr. F. M. Lacy, and Mr. G. Koehler.

This committee was instructed to act with the Secretary of the Photographers' Association of America, and with discretionary powers to assume such duties as may properly belong to it.

On motion, adjourned to meet on the call of the local secretary.

HENDERSON GEORGE,
Secretary.

In a private letter recently received from Mr. Joshua Smith, he says: "I am glad you treated the article in your last in the manner you did, and hope you will continue to keep the Association before your many readers. The officers are all practical photographers, and are all hard at work for the interest of the coming convention. We are at present engaged in getting reduced rates from the railroad. We have secured special rates from Chicago to Indianapolis and return; price, \$6.00. We shall have a special train from here, and desire that those coming from the west and northwest should concentrate at Chicago and join us. We expect to leave here on Sunday, the sixth of August. It is hoped that Philadelphia, Boston, New York, Cincinnati, Louisville, and St. Louis will work on the same plan; it would make it more pleasant for all.

"Will you kindly draw attention to this matter, calling upon the fraternity at large to unite."

WE publish the following, and need scarcely say that we wish all success to the movement:

CHICAGO, April 25, 1882.

In response to my circular dated 10th instant, inviting your co-operation in forming a *Dealers' Association*, I have received replies from those whose names are affixed, all joining the proposed movement in the most hearty manner. Several have urged an early meeting, feeling that the organization of such an Association should have more careful deliberation than is possible during the excitement of the Photographers' Convention, in August, and that any benefit accruing from the proposed Association and its deliberations should be immediate, allowing for such features to take shape in the

fall catalogues of the members. I have, therefore, issued this Circular, asking, if it is your pleasure, that the meeting be called for June 8th, and if so, your preference as to place of meeting—Saratoga, Niagara Falls, or Chicago? all these points being easily reached, and low rates at hotels can be secured at that time. Please send a prompt reply, that proper arrangements can be made.

Respectfully and Fraternally,
GAYTON A. DOUGLASS.

List of names approving the call for a meeting to organize a Dealers' Association:

Scovill Manufacturing Co.; Wilson, Hood & Co.; T. H. McCollin; W. F. Ashe; John Carbutt; G. Gennert; J. C. Somerville; H. A. Hyatt; H. J. Thompson; Peck Bros.; Jordan & Sheen; Elmer & Tenney; Bachrach Bros.; Blessing Bros.; A. M. Harris; J. E. Beebe; J. H. Smith; Cramer & Norden; Zimmerman Bros.; Benj. French & Co.; A. M. Collins, Son & Co.; L. W. Seavey; Wolf & Cheney; Francis Hendricks; D. Tucker & Co.; Mullett Bros.; W. J. Hazenstab; Allen Bros.; H. Leiber & Co.; A. C. Black & Co.; Sargent, Bowker & Co.; S. T. Blessing; G. W. Sittler; Crystal Dry Plate Co.; F. F. Indermill; D. J. Ryan; W. F. Ashe; Douglass, Thompson & Co.

SUMMARY OF QUESTIONS.

In closing the series of articles which has appeared for the last five months under the heading of "Answers to Questions to the Craft," we believe that it will be both useful and interesting to analyze and compare the opinions which have reached us in answer to our circular letter.

We have succeeded in doing just what we wished to do in this matter, or rather, let us say, that our expectations have been exceeded in the kind promptitude with which our subscribers have responded to the questions asked, and that they have in most cases dealt with the practical bearings of the subject, which is precisely what we desired.

When we stop to consider the comparatively short time that the gelatine negative process can even be said to have claimed an existence, to say nothing of the still shorter

acquaintance of most dark-room operators with it, we might have expected a wide diversity of opinion to have been manifested in the various answers given on the subject of a photographic process so recently introduced. But this has not been the case; in fact, the similarity of the answers to each other has been often surprising; in many cases the same idea expressed in other words. That this would not have been so some years ago in the early days of the wet collodion process, had a similar series of questions been addressed to the readers of a photographic journal, is very certain. And why? Because in those times most operators themselves prepared every solution used in the dark-room, thus finding themselves compelled to be more or less familiar with the various chemicals used, at least as regarded their sensible properties, mutual reactions and tests, and in some cases their manufacture. In fact, a knowledge of photographic chemistry was then, and has by no means ceased to be at the present day, money in the pocket of the photographer, greater or less in amount according to his knowledge. Naturally then, when operators had to handle at least half a dozen chemicals where now they do one, many failures were made, and many curious things experienced by those following the thorny paths of self-instruction, as many were perforce necessitated to do. Opinions were widely different as to the virtues of even the standard preparations used in the art. The most wonderful properties were ascribed to certain mixtures, and countless numbers of worthless processes hawked about everywhere, the sharpeners of that time, just like those of to-day, knowing that their best harvests were to be reaped from those who preferred remaining in ignorance, rather than make any effort in the up-hill work of chemical study, which requires the closest attention to details, and extreme nicety. But how widely different is the condition of things at the present time! In spite of the fact that earnest and conscientious operators and scientific photographers recognize just the same obligations of study and investigation that they did in the days just referred to, we can not but express our surprise—nay, amazement—that there are probably thous-

ands now in the first flush of pleasurable excitement over the success of their *debut* in the photographic art, who knew little and cared less for the camera or anything concerning it a few months or even a few weeks ago. It is beyond question that we owe the great increase in the number of photographers, both professional and amateur, directly to the gelatino-bromide process. For the very fact of the plates being troublesome and difficult to prepare to those who have not specially prepared themselves for it, both by study and by the outlay of a considerable sum for the necessary apparatus, has driven the manufacture of the plates just where it ought to be, viz., into the hands of specialists who can afford to give their undivided attention to the matter, and who have succeeded in putting into our hands plates that, for uniformity and clean-working, to say the least, are unsurpassed in the world. While we are well aware that some have not hesitated to regularly prepare and use their own plates, still they are in the minority compared to the ones who use a commercial plate.

This, then, will largely account for our answers being less at variance with each other than we might have expected.

Out of the seventeen answers published, we remark but two which could be called inimical to the gelatine plate, and these indeed but partially so. All concur in the superior rapidity of the plates, and nearly all upon the great advantages offered by them when dealing with any subject where the exposure is necessarily curtailed or the light deficient in actinic power. A large majority also do not stop here, but make liberal use of expressions of satisfaction and delight at the ease with which the work is now accomplished, and freely say that the failures met with have been owing principally to their own limited knowledge of the process and the conditions under which it must be worked, if success is to be hoped for. The failures usually mentioned are fogging, spots, thinness and flatness after fixing, and (in a few cases) uneven coating. The fog arising from presence of actinic light either in the camera or dark room needs mention only, we believe, to be gotten rid of at once and forever. That termed yellow or green fog

is probably an overdose of ammonia in the pyro developer, or, in the case of ferrous oxalate, either a development too much pushed, or an emulsion wrong in the first place. The fog appearing after intensification can be almost invariably traced to the imperfect removal of hyposulphite of soda from the film, the same pernicious influence being manifested by the fixing agent, both upon mercury and silver intensifying.

Thinness and flatness after fixing is in most cases owing to over-exposure and under development; but to those who are straining after the maximum of rapidity, we also suggest that there is a possibility of the emulsion itself being to blame here. A gentleman of much experience recently quoted a case to us where a sample of emulsion was tested by being used wet, and was found perfectly satisfactory; the same emulsion when dry plates were prepared from it gave hopeless fog. We have had plates which, while not actually fogging under development, remained thin in spite of all treatment, and this coupled with their ultra sensitiveness was proof of an over-cooked emulsion, or, at all events, one in which the reactions had passed the proper point.

We are much gratified to note that frilling of the film, which threatened to be such a serious drawback to the gelatine process on its first introduction, seems to have been virtually overcome by the manufacturers. It is only mentioned once in the whole series of our answers, and, even there, is not specially enlarged upon as having caused much trouble.

The failures caused by uneven coating of the plates have only been alluded to in two instances, but nothing is more annoying to a neat operator than to find his plate faultless in so far as his own manipulation is concerned, but lacking in the very desirable quality of even density throughout. The practice adopted by many manufacturers of coating large glasses and then cutting them down to the required size has much to do with this, for, of course, it is not so easy to get large pieces perfectly flat as small ones. Much however, will depend upon the skillful flowing of the emulsion, and the maintaining of an absolute level until setting has taken place. If the high price of plate-

glass did not preclude its general employment we could see our way out of the trouble very easily, but as this would give those already complaining of the figures on the price lists still more ground for dissatisfaction, we must content ourselves with asking the special attention of manufacturers to this important matter.

Mr. Joshua Smith, of Chicago, the President of the Photographer's Association of America, answers the question on the discarding of collodion and the bath very pertinently by saying that he uses both the emulsion and the bath for the respective work which they are capable of performing. And this is undoubtedly the true answer. Wet collodion is and will remain useful for much of the ordinary work done by photographers, and is certainly not open to the objection of the great cost of plates bought ready prepared. Half of the total number of answers speak either of having discarded the bath or feeling confident of the ability to do so; some do not commit themselves upon this point, having probably chosen the safer method just alluded to; and one denies the possibility of doing so, from the inferior quality of the finished negatives.

The fourth question, whether more artistic work is made by the use of the gelatine plate, has just the same number as the previous question on the affirmative side (eight out of seventeen), but three on the negative, who stoutly deny the advantages of gelatine. This seems singular, for as expressions of face and certain positions of body are transitory, that plate which will catch them most rapidly will beyond question be the superior one, besides its capability of awaiting the favorable moment without the least risk of spoiling, as a wet collodion one would.

Opinions are tolerably unanimous as to the fifth and sixth questions; the sitter naturally being pleased with a short exposure, but not caring about any particular process in preference to another; but in every case we have felt encouraged to see the testimony borne to the increased appreciation of painstaking effort on the part of the photographer; and in concluding this article, which has drawn us past the limits we had intended, we feel that this increase

of the appreciative and critical quality in the patrons of the photographic art is a matter upon which every earnest worker is to be congratulated, even if it be carried past proper bounds in a few rare cases; for as long as there is this spirit in the public mind, the members of the photographic brotherhood will labor to satisfy it; and such a labor can not fail to carry great improvement with it. That this will undoubtedly follow is evident if we look at the flattering answers received to the seventh question upon the general business prospects for the year 1882.

PHOTOGRAPHING IN THE CAVERNS OF LURAY.

ONE of the most interesting and entirely successful series of photographs which we have seen for a long time has been made by our townsman, Mr. C. H. James, in the interior of the caverns of Luray, near the town of the same name in Virginia.

The pictures will undoubtedly do much towards creating a widespread interest in this wonderful natural curiosity, which is just beginning to be known, but which offers, according to the unanimous opinion of those who have visited it, a richness and variety of the stalactite and stalagmite formation unsurpassed in this country, besides other features peculiar to itself alone.

In the course of a long and interesting conversation with Mr. James, we expressed the desire of sharing what we heard with our readers; to which he very readily and kindly assented.

The outfit was of a solid and practical character, though not a very extensive one, and comprised a 7 x 9 box with an 8-inch Ross portable symmetrical lens, and a 5 x 8 stereo box with two sets of lenses, the most useful being a pair of Dallmeyer's quick-acting 4½-inch single view lenses; the shorter focus doublets being found to give rather too much angle, and to work too slowly. A notable point here is the fact that almost all the exposures were made with the smallest stops of both the lenses; this was necessary from the long reaches comprising both near and distant objects, both of which had to be in sharp focus, and were undoubtedly

more trying to the lenses than an ordinary open view or architectural subject.

Focussing was no easy matter, and was accomplished by means of a lighted candle set upon some spot carefully chosen; the focus being drawn upon the flame itself.

The illumination under which the exposures were made was furnished by the powerful Thomson-Houston electric lights with which all the more frequented parts of the cave are supplied, and which are accompanied by a telephone wire communicating with the engineer in his room at the distance of nearly a mile from the cave's mouth. The power of each light was estimated at three thousand candles, and in all cases where the character of the subject required more than one of the lamps, the greatest care was taken in the management of the secondary illumination; the principal or strongest light being supplied with a screen or partial reflector of white paper immediately behind it, so that the light was somewhat broken up and modified in character and devoid of the extreme harshness so often seen. Mr. James attributes much of his success, particularly the delicate half tone in which his negatives abound, to this simple plan. The secondary lamps, after being brought to bear upon very dark spots, were allowed their full power, so as to give all the detail possible. Mr. James spoke of the deceptive appearance of the electric light, and he estimates its actinic power to be fully three times the visual, for in many cases where little or nothing could be seen on the ground glass when focussing, a comparatively short exposure gave negatives full of softness and gradation, even in spots where the prevailing colors were yellowish-brown and red.

The damp atmosphere of the cave proved rather trying to the woodwork of the cameras, and at first the lenses showed a tendency to sweat; but this was gotten rid of by wrapping them up in a thick cloth while above ground, and after descending letting them rest for fully half an hour before undoing the parcel.

It is hardly necessary to say that gelatine dry plates were used exclusively. Two well-known makes were taken, and a pyrogallic acid development was depended upon

throughout to the exclusion of ferrous oxalate. The sensitiveness was estimated from six to ten times wet collodion, and owing to the feeble light, after-intensification was resorted to in nearly all cases.

Mr. James spoke in high terms of Mr. Carbutt's formula for developer here given :

No. 1.
 Pyrogallic Acid, . . . 1 ounce.
 Bromide of Ammonium, . . . 1 ounce.
 Citric Acid, . . . 60 grains.
 Dissolved in 10 ounces of water.

No. 2.
 Aqua Ammonia, . . . $\frac{1}{2}$ ounce.
 Water, . . . 2 ounces.

These are stock solutions.

To develop, take six ounces of water, and add half a fluid drachm of each of the above stock solutions, and if more density is required add from four to five grains additional dry pyro. The citric acid is of great value in any stock solution of pyro in preserving it clear and free from discoloration. The plates were strengthened by the ordinary formula of bichloride of mercury followed by ammonia, but Mr. James insists upon the necessity of laying the plates in an alum and citric acid bath before applying the mercury, otherwise stains and unevenness are sure to arise. This is conclusive proof of the value of alum as a hypo-eliminator.

The choice of subject and arrangement of light were of course the main difficulties to be surmounted, the chemical operations offering nothing remarkable. And that they have been most successfully overcome, all will agree who have the opportunity of looking over this beautiful collection of nearly forty stereos and thirty 7x9 views which were brought home by Mr. James as the fruits of two months' labor in the bowels of the earth.

"I have taken the *Philadelphia Photographer*, *Mosaics*, etc., for the last five years; also allow me to thank you, Mr. Wilson, for *Photographics*; it was one of my wedding presents when I was married, and I would not take \$100 for it if I could not buy another.

"Yours, H. McNEILL.
 "Fredonia, N. Y."

GELATINO-CHLORIDE OF SILVER PICTURES BY DEVELOPMENT.*

FROM the earliest days of photography, chloride of silver has been most largely used in the production of photographs; but hitherto very little has been done in developing the latent image formed by the action of light on chloride of silver films. The idea is not, however, a new one. I have brought for your inspection some fine transparencies developed on collodio-chloride by Mr. H. J. NEWTON, President of the Photographic Section of the American Institute, New York. These beautiful pictures were presented to me in America in the year 1872—just ten years ago. Since that time others have experimented in the same direction. Mr. Herbert B. Berkeley has from time to time published the result of his researches; and more recently Dr. Eder and Captain Pizzighelli have given details of their method of producing diapositives on emulsion plates containing chloride of silver in combination with gelatine. The same gentlemen have also shown at Vienna, and at the recent technical exhibition in this building, a series of beautiful transparencies which were universally admired. As these pictures seem to have awakened considerable interest in the process by which they were produced, I propose this evening to demonstrate the method of producing transparencies on gelatino-chloride plates, and to describe certain modifications in the development which I have found to give the best results.

For the preparation of the emulsion the following simple formula is all that is required:

Gelatine,	300 grains.
Cold water,	4 ounces.
Nitrate of Silver,	240 grains.
Distilled Water,	2 ounces.
Chloride of Ammonium,	100 grains.
Water,	4 ounces.

Mix the above in three separate vessels, allow the gelatine to soak for ten minutes, and warm all the solutions to about 120° F.

* A communication to the South London Photographic Society.

Now add the silver to the gelatine, and immediately afterwards add the chloride. Emulsify at the same temperature for about an hour; then allow the emulsion to set. Pass through canvas, and wash in running water for some hours in the usual way. When washed and dissolved by gentle heat the emulsion will be ready for coating the plates. The glass chosen should be as thin and flat as possible, to ensure contact in printing from the negative. The dried film should appear pure white by reflected light, and of an orange tint by transmitted light. The latter color is owing to the chloride of silver being held in an extremely fine state of division.

With regard to the sensitiveness of these plates, I have found them at least a hundred times less sensitive than ordinary gelatino-bromide plates. The time of exposure will depend, to a great extent, upon the color desired in the transparency and the strength of the developer. With a moderately strong developer an exposure of two or three seconds to diffused light under an ordinary negative will give all the detail.

The developer I use is a modification of Dr. Eder's formula and that of Captain Abney. A stock solution is made as follows:

Citric Acid,	5 ounces.
Distilled Water,	20 "
Strong Ammonia,	2 "

The heat produced by the addition of the ammonia will cause the crystals of citric acid rapidly to dissolve. As soon as the mixture is sufficiently cooled the solution is ready, and will keep a long time. When required for use, mix three parts of the above solution with one part of the ordinary ferrous-oxalate developer freshly made, by adding one part of a saturated solution of sulphate of iron to three parts of a saturated solution of neutral oxalate of potash. Now add to each ounce of the mixture two to three drops of a twenty-grain solution of bromide of potassium.

This will form a very powerful developer for the gelatino-chloride plates, and with a moderately short exposure will give a rich purple tone to the transparency. For a pure black tone expose less time and use equal parts of the ferrous oxalate and citrate of

ammonia solutions, with an extra drop or two of restrainer, if required. If much warmer tones are desired, six or eight parts of the citrate solution should be used to one part of the ferrous oxalate. Any shade of color may be obtained, from jet black to bright ruby red; but with the weaker developer it will be necessary to increase the exposure considerably. For instance; to obtain the ruby color, two or three times the exposure will be required than for the black tones with the stronger developer. In this way a great variety of beautiful tones may be produced at will; but the great advantage of this method of development consists in the very great latitude allowed in the exposure. When working by daylight and with negatives of different degrees of density it is practically impossible to be sure of getting the correct exposure except by repeated trials, unless the developer can be regulated to suit the exposure given. By my method this is easily done. I make three or more portions of developer of different degrees of energy; that is, containing a greater or less proportion of the ferrous oxalate. Should the transparency appear under-exposed the developer is at once poured off and the development completed and all the details brought out with a more energetic solution. In the case of over-exposure the operations are reversed. This power of correcting under- or over-exposure in the development of pictures on chloride of silver has not hitherto been obtained by any known method; and I think I may venture to assert that, without the power of compensating for errors in exposure, the process of printing by development on chloride of silver, however beautiful in some of its results, would be practically useless. With regard to the keeping qualities of the developer, I find that after being mixed it gradually but slowly loses its energy, otherwise keeping in perfect condition for several weeks. It can, however, at any time be restored to any desired strength by adding the proper proportion of freshly made ferrous-oxalate developer, as in the first instance.

With regard to the utility of this really beautiful process, I think few will question its superiority for the production of the most exquisite transparencies for lantern

slides or for making enlarged negatives. There is, however, another application of the process which may eventually prove of far greater importance: I allude to the rapid production of silver prints on paper by development, instead of the present slow process of printing out under the negative. I have already made a few experiments in this direction, and from the results I have already obtained I should judge that it is not improbable that the process I have described to you to-night will prove in time the quick printing process of the future.—MR. B. J. EDWARDS, in *The British Journal of Photography*.

SPOTS ON WASHED EMULSION PLATES.

CAPTAIN ABNEY in his new work on emulsions (noticed on page 178), states that he believes the cause of transparent spots in the washed collodion emulsion film to be owing simply to the absence of a preservative, and, further, that plates exposed within three or four days after preparation will be free from them, even if no preservative be used. It is undoubtedly true that an unwashed emulsion film, or bath plate, with a preservative, rarely or never shows the peculiar round hole with a central nucleus so well known to all who have worked washed emulsion. But we can not in any wise agree with Captain Abney, as to the application of a preservative being a certain cure for the trouble. On repeated occasions we have dipped the plate after coating with a washed emulsion into a dish of preservative, without more time elapsing than was necessary for the proper setting of the film, and after drying exposed it side by side with those simply dried off in the usual manner with no difference as to the spots. We have never been able to detect the slightest protective influence from the presence of the preservative when applied to a washed emulsion, so that we were driven to the conclusion that whatever formed the spots was either floating free in the emulsion at the time of coating in a form that resisted the most careful filtration, or that it was deposited on the plate in the in-

terval between coating and drying, or lastly that it was some foreign matter on the surface of the glass that had remained in spite of the cleaning. After an extended experience in the preparation of washed collodion emulsion plates, both in well-appointed dark-rooms, and in other localities just the opposite, where dust in all its varieties and forms poured itself upon ourselves and our plates, we believe, that while there is no radical cure for this pest and bane of the travelling photographer, that still a careful attention to the condition of the surface of the glass will do much to help matters and sometimes remove the trouble entirely. A good piece of plate glass cleaned in weak nitric acid, and polished off with French chalk, will often show no spots, while a commoner kind merely cleaned with tripoli and alcohol, and polished with paper or a chamois skin, will be almost sure to, even in spite of the most careful brushing off with the camel's-hair brush. An instructive experiment, showing what a fine surface is produced by the use of the French chalk as compared to any other, may be made by holding a plate so cleaned at an acute angle in the full light of the sun near a window; the motes and specks of dust will be seen to fall on the surface of the glass and bounce along until they finally fall off, proving that the surface of the glass is so smooth and polished that they will not adhere as they do to an ordinary surface. A rather rapid drying of the film will also be found to be of great benefit. In our own practice, we always use, when away from home, a flat sheet of copper of convenient size, mounted on three folding legs at the proper height above a powerful spirit-lamp. As soon as the plates are coated, and well set, they are held within a few inches of this hot copper and carefully moved about so as to expose all parts of the film equally to the heat, and prevent drying marks, the plates being turned film side down. Plates so prepared do not show spots nor insensitive patches, particularly if they are laid down on the hot copper for a few seconds after being dried, and thoroughly heated through so as to ensure absolute desiccation. We are firmly of the opinion that the preservative has nothing to do with the transparent

spots in question, and the time elapsing between preparation and exposure also little or nothing, for every emulsion worker can quote many instances where spots have appeared on plates coated within the hour.

PROCEEDINGS OF SOCIETIES.

PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.—Minutes of the regular meeting held Wednesday evening, May 3, 1882. The President, Mr. Joseph W. Bates, in the chair.

The minutes of last meeting were read and approved.

Mr. Barrington, of the Excursion Committee, reported that they offered the choice of two routes. One on the Chesapeake and Ohio Canal, from Georgetown to Cumberland, a distance of about 200 miles. The other on the Susquehanna and Tide-Water Canal, from Columbia to Havre de Grace, a distance of 45 miles, making McCall's Ferry a headquarters. The time to be occupied in either case to be one week.

After some discussion, it was decided to adopt the Chesapeake and Ohio route, and to start on, or about, May 22d. Upon calling the roll, eleven members signified their intention of participating.

Messrs. John G. Bullock, Chas. H. Mann, and Robert S. Redfield, were elected members of the Society.

Mr. Wood read an interesting and humorous paper on the camera and its peculiarities.

Mr. Partridge exhibited a number of 7x9 pictures, of various views in the caverns of Luray, Va., made by Mr. C. H. James. These pictures were all made on gelatine plates by means of the electric light, and with exposures varying from one to four hours. The great amount of detail, especially in the shadows, and the faithful rendering of the great beauties of this wonderful freak of Nature, made these photographs especially interesting.

Mr. Browne exhibited a novel form of spirit-level, adapted to photographic use, the glass containing the liquid being enclosed in a circular brass case one inch in diameter. Also a small camera and lens for plates 2 inches by 2½ inches, together

with negatives made with it and 11x14 enlargements from them.

On motion, adjourned.

C. R. PANCOAST,
Secretary.

BOSTON SOCIETY OF AMATEUR PHOTOGRAPHERS.—A regular meeting of the Society was held at the Institute of Technology, on April 25th, President, W. T. Brigham, in the chair. The records of the last meeting read and approved.

Messrs. J. P. Whiting, H. M. Pope, E. Milliken, and R. N. Cutler, were elected to membership.

The President then introduced Mr. Ernest Edwards, of the Heliotype Company, who communicated the results of some recent experiments of his own in the preparation of gelatine emulsion dry-plates, which excited much interest. Mr. Edwards said that it had long seemed to him that the ordinary process of producing dry-plates was open to many objections, and that it was so complex that there was always great uncertainty as to the result. He exhibited three plates. The first of these was coated with a yellowish film, which was insensitive to light, but which could be made sensitive by soaking in cold water. The second was a plate that had been made sensitive in this way, and the third was a plate which, having been thus made sensitive, had been exposed under a negative to the action of gaslight for three seconds, and then developed with oxalate, producing an excellent transparent positive. The points gained by this process were that the emulsion was made and the plates coated wholly by daylight, and that the ordinary and tedious process of washing to get rid of the free nitrate of silver, the nitrate of potash and other objectionable elements, was dispensed with. Mr. Edwards described the process in detail as follows:

"I dissolve twenty-four grains of bromide of potassium and thirty grains of gelatine in one-half ounce of water, raised to and maintained at a temperature of 100° Fahr. Next I dissolve thirty grains of nitrate of silver in two drachms of water, adding liquor ammonia until the black precipitate formed is re-dissolved, the amount of liquor ammonia added being thirty-five drops.

This ammonio-nitrate solution is then added to the bromized gelatine solution first named, and the two thoroughly mixed by agitation. To this is added a solution of twenty grains of bichromate of potash in one-half ounce of water, and finally, two drachms of alcohol, raised to a temperature of 100° Fahr., are added to the mixture. *All these operations are conducted by daylight.* Next, still working by daylight, the plates are coated by pouring, and laid aside to set and dry. When dry, one of them is taken into a dark closet, soaked in cold water, face downward, for about an hour, the water being changed several times, and then removed from the water and dried in the dark. It is then exposed under the negative and developed, with the result above given. The action of the bichromate is to render the bromide of silver insensitive while it is present. The washing removes not only this bichromate, but also takes out the free nitrate and the nitrate of potash, the thin film being the best possible form in which the gelatine can be presented for washing. All necessity for 'cooking' the gelatine is done away with by the use of the ammonia nitrate.

"I recommend that in making plates by this process they be washed as soon as they are 'set,' without allowing them to dry, as in this way any effect that the light might have on the bichromated gelatine is avoided."

The importance of this new departure in the method of preparing dry-plates can only be appreciated by those who have made them by the old method, which requires all the operations of mixing, "cooking," washing, coating, and drying to be carried on in a room so dark that it is impossible for the operator to clearly see what he is doing. With properly constructed washing and drying boxes plates may, by Mr. Edwards' method, be made in large quantities much more rapidly and at much less cost than by the method now in vogue. It is hoped that others will experiment upon it, and make public the results of their investigations.

After those present had examined the plates shown by Mr. Edwards, Mr. Marshall, a well-known professional who uses only dry-plates in his studio, developed a few plates that had been brought in by members, using the oxalate developer. As most

of these plates had been over-timed Mr. Marshall demonstrated that over- as well as under-exposed plates can be treated successfully with the oxalate as well as the pyro developer, by increasing the iron or adding bromide.

The meeting, which was one of the most interesting which the Society ever held, then adjourned.

JOHN H. THURSTON,
Secretary.

THE MICROSCOPICAL SOCIETY. — Last evening there was quite a good attendance at the hall of the Microscopical Society to listen to the address of MR. JOHN CARBUTT, of Philadelphia, upon the subject of Photomicrography. A number of scientific gentlemen from Philadelphia were present. Mr. Carbutt was one of the original members of the Illinois State Microscopical Society, and, besides his interest in microscopy, he is also well known throughout the country as a skilful photographer, and one who has done so much toward the popularizing of the dry-plate process. In his lecture of last evening he spoke of the peculiar adaptability of the dry plates to the wants of the microscopist, on account of their extreme sensitiveness, and the fact that they can be so easily manipulated even by those without previous experience. The arrangement used for photographing was remarkable for its simplicity and inexpensive character. It consisted of a board about four feet long, with a ledge around it in which was fitted a sliding block to which the camera was attached, another for the microscope, and one for the lantern, all adjusted to a proper height. The microscope was attached to the camera by means of a rubber sleeve connecting with a conical tube about fourteen inches long. The lantern used was invented by the lecturer, and is really a *multum in parvo*, for, while it gives an unusually brilliant light for photo-micrographic purposes, it at the same time furnishes a perfectly safe light to develop plates by.

With a two-inch Bausch & Lomb objective, and an exposure of two minutes, a negative was taken from a spider's foot. With the same objective, and an exposure of one minute and a quarter, one was also

taken from a sheep tick, "B" plates being used in both instances. The shorter exposure in the latter case was in consequence of the object being much less dense and yellow. Upon being developed, both plates showed that the exposure had been correct, every detail being fully brought out. Removing the microscope, the process of making positives for the magic lantern was then shown, and attracted all by its simplicity. A negative being placed in the printing-frame, the lantern was closed so as to emit only red light.

An "A" plate was then laid upon the negative and the frame closed. A door of the lantern was then opened so as to emit the full light of the flame, and the plate exposed twelve seconds. The door being closed, and the room again illuminated only by red light, the positive was then developed and afterwards shown upon the screen by means of a sciopticon.

At the conclusion, a vote of thanks was given to Mr. Carbutt for his very interesting and instructive address.

By request, Dr. Robinson will address the Society on Thursday evening, June 1, upon the subject of the "Microscope in Medicine."

On the evening of May 25th, the Third Annual Soiree of the Society will be held at Morgan's Hall, when it is expected that the societies of West Chester and Lancaster will be present, also the Biological Section of the Academy of Natural Sciences of Philadelphia. — *Camden (N. J.) Post*, of May 5th.

NEW BOOKS.

PHOTOGRAPHY WITH EMULSIONS. A treatise on the Theory and Practical Working of Gelatine and Collodion Emulsion Processes. By CAPTAIN W. DE W. ABNEY, R. E., F. R. S. New York, Scovill Manufacturing Co., 1882.

It is again our pleasurable duty to call the attention of our readers to a text-book quite exhaustive in its special department. Any one who has watched the wonderful growth and development of the emulsion process will understand that a work bearing the above title must stand far before the

average, if it even touches upon the principal matters connected with such a subject as emulsion photography; but when a book of the modest proportions and comprehensive title of the one now before us really proves on perusal to be as exhaustive and able as this one, we feel that it is a work unique of its kind.

The first dozen pages are occupied with general and theoretical considerations which will probably interest the experimental chemist, or man of science, rather than the working photographer or even the professional plate-maker, unless he be more than usually fond of abstruse chemical problems. After a short chapter on the theory of the alkaline and ferrous-oxalate developers, practical matters are immediately entered upon, full directions being given for the convenient fitting up of the dark room, its illumination, the drying-box, etc.

A detailed account of collodion emulsion then follows, every separate stage of the process being carefully treated, and interesting matters now and then alluded to which have already passed into the history of the collodion emulsion process. Collodio-chloride and moist emulsions are not forgotten, and a chapter on failures and defects brings us to the introductory remarks on gelatine emulsions. The remainder of the book is given up to the consideration of the gelatine negative process in the fullest manner; many different formulæ from the best authorities being given, compared, analyzed and criticised, and a special chapter devoted to the failures peculiar to the gelatine film. The appendix contains remarks on distillation, lists for the traveller, etc.

The following soundly sensible remarks, which we commend to the especial attention of our readers, are quoted from the chapter introductory to gelatine emulsions: "The only fair way of settling the value of a process is for the individual to try the experiments himself, and form his own judgment; but if the reader has a process with which he is thoroughly satisfied, we advise him to keep to it, and not waste his time or energy in following out more elaborate, but perhaps less successful, processes."

"A pertinent question for every one to ask himself is, as to whether a very rapid

process is always a *desideratum*. For our own part, we unhesitatingly say it is not. For transient effects in a landscape, for instantaneous views, or for portraiture in dull weather, rapid plates are useful adjuncts, but nothing more. We believe that finer pictures, more mellow and truthful, are usually produced by the slower plates, be they collodion or gelatine."

DIE BROMSILBER-GELATINE, von Dr. Paul E. Liesegang. Düsseldorf, 1882.

THIS practical and handy little *brochure* will doubtless meet with much favor among those conversant with the German language. Not aiming to be the exhaustive work noticed above, it still gives most useful information upon all points connected with the manufacture of the emulsion and plates, and an elaborate chapter on failures. The first few pages, among other matters of historical interest, contain an account of how Mr. Kennett, of England, had well-nigh abandoned the hope of making a gelatine negative free from fog. He was advised by his son to prepare and develop a plate in absolute darkness, and doing so succeeded for the first time. By carefully admitting orange-yellow light to the dark-room, he finally succeeded to his satisfaction.

PHOTOGRAPHY ON COPPER.

OUR learned co-worker, Major Waterhouse, sends us from Calcutta the following brief description of a new process of photography on copper, to be used by engravers.

A polished copper-plate is silvered in the usual way with a solution of cyanide of silver. It is then sensitized in a bath of bromide of copper at five per cent., dried and exposed for one or two seconds under a negative or positive, as the case may be. It is then developed with oxalate of iron or pyrogallic acid, exactly as is done with dry gelatine plates. If the exposure has been sufficient an image of great vigor is obtained; it is useless to fix it, but the image becomes more clear and brilliant if it is treated with a weak solution of cyanide of potassium. If it is fixed in an old bath of hyposulphite of soda containing silver, an image is obtained very similar to a daguerrotype. It

is also possible to obtain impressions in the camera with an exposure three or four times longer than if collodion plates were used.

Major Waterhouse adds to this interesting communication that he has not yet had time to thoroughly experiment with this process. But already, such as he gives it, it is well calculated to prove very useful to engravers.—*Paris Moniteur de la Photographie*.

A PARAGRAPH on page 188 calls attention to the efforts being made by a French Photographic Society to obtain two important modifications of the existing laws of the land for the benefit of the photographic brotherhood. The latest number of the *Moniteur de la Photographie*, a well-established journal of which our friend M. Léon Vidal is the director, surprises us with the announcement that already one of these projects has been carried out, and that now any one desiring to take any package whose contents are of a character to which daylight is destructive or hurtful, through the custom house, may demand that the examination be conducted in a dark room with suitable light. The *Moniteur* briefly adds, "we owe this step in advance to the efforts of the *Chambre Syndicale*, and to the conciliatory and just spirit of our Chief Director of the Custom House."

Those who pass their lives working in one place can scarcely appreciate the satisfaction with which this new regulation will be hailed by the army of travelling photographers with which Europe is always filled. Nor would the full value of it have been felt to the same degree in the days when the travelling outfit consisted of articles which would bear examination by daylight, as it is now, when probably a majority of those travelling with the camera have with them a larger or smaller stock of prepared plates to which daylight would be fatal, and any examination at the hands of the custom house authorities, roughly conducted, subject them to much loss and perhaps nullify the object of the trip.

To what then has such a marked advance in the photographic world been owing? And what gave it the first impetus and kept it moving until a successful result was at-

tained? And we answer *the resolute and concerted action of a body of men working for the common good of the calling.*

BUT this is only one of a number of signs of unusual activity among the photographic societies this year. One of our German exchanges contains the notice of the eleventh out-door meeting of the German Photographic Union, to be held at the town of Eisenach, in Thuringia, on the 22d, 23d, and 24th of August next. Certainly no better place could have been chosen for the purpose named. In a comparatively central part of the country, easily accessible by rail, with plenty of hotel accommodations and conveyances; at the foot of the mountain on which stands the famous castle of the Wartburg where Luther translated the Bible, and whose history reaches back to the semi-fabulous times of Saint Elizabeth of Hungary, and the minnesingers—in such a position, and with such surroundings, it cannot fail to attract a full attendance of the members of the Union, if only for the pleasure of the trip; but that there is no lack of the very best material here for out-door photography we ourselves could testify, having spent delightful days in wandering about those historic spots with our camera, and securing photographic mementos of places familiar to us by name for years, and which we had travelled far to see.

AND we remark with pleasure, that the Photographic Society of Philadelphia holds one of its out-door meetings, or rather excursions, this year. The route chosen is a most attractive one, and takes the members first to Washington, and then by canal to Cumberland, Maryland, a distance of more than two hundred miles, past Harper's Ferry and other spots made famous during the rebellion. The ground passed over is quite new, and affords fine opportunities for photographing. The time occupied by the trip will be about a week, and a comfortable steam yacht containing ample cabin accommodation in case of storm, and complete requisites for cooking, etc., etc., has been placed at the Society's disposal for the trip. At the time of our writing, every one of the members whose engagements permit him to join in the trip, which bids fair to be

the most successful and pleasant one ever taken by the Society, is busily engaged with his cameras and tripods, and either buying or making the plates he expects to use.

LAST, but not least, is the stir and bustle of the preparations for the meeting of the Photographer's Association of America, at Indianapolis. We notice that Mr. Dumble's circular to the foreign photographic societies asking for co-operation with the exhibition of pictures, has been favorably reported upon by several of these bodies, particularly the Berlin Union for the Advancement of Photography, which is holding itself in readiness to ship any exhibits to Indianapolis that may be sent in by the members.

WE reprint the following data concerning the great lens for the Lick Observatory from the *British Journal* of April 28.

"When a lens of extreme dimensions is required, the value of the glass alone is enormous. Thus, there was lately sent to the polishers a slab of glass made in Paris for the great telescope for the Lick Observatory in California, the cost of the slab being two thousand pounds. Its weight is between three and four hundred-weight, or, to speak exactly, one hundred and seventy kilogrammes. It is over a yard in width and half a yard in thickness. It took four days to cast, consuming eight tons of coal in the operation, and a whole month was required for the gradual cooling deemed necessary.

"We have more than once heard complaints from photographers of the high price of the best lenses, the cost of cheap foreign ones being instanced as an example of what might be done. Apart from the piracy of other men's brains involved in the production of these cheap imitations, it may be observed that when the highest class of instruments are required, the actual raw material—the glass itself—is an item of cost of considerable importance; and, like some precious stones, as the weight increases the value multiplies to a far greater extent.

"Referring to this lens having been made in Paris, we may say that all optical glass is not cast there. A very large proportion

of such instruments as opera glasses, etc., sold by the English makers really come from France; but the French in the first instance have to come to this country to buy the raw material—the flint glass."

PHOTOGRAPHIC EXPERIENCES IN THE EAST.

BY WILLIAM H. RAU.

(Continued from page 151.)

IN selecting tripods, I took only those that had the lower ends short enough to double up with the head or top on, as they could be folded without unshipping every time. Also chose those that had the grain running straight, as a short grain will break very easily. Extra tops for each were taken, and had I had the time, should have taken the screws out and riveted the irons on the tripod tops that hold the legs—this should always be done, when possible. Of lenses we have the following: a No. 2 Euryscope, for quick pictures, groups, etc.; a Hermagis, 10-inch, for general views, architecture, etc.; a Morrison 8-inch lens and a Ross 5-inch symmetrical for very close quarters; all the above for 8 x 10 size. For stereoscopic, 1 pair Ross instantaneous carte-de-visite lenses, one pair Morrison 5½-inch, 1 pair Darlot single view about 7-inch focus, 1 pair 3-inch Ross symmetrical. For the Morrison and Ross stereo lenses we have exposing flaps or boxes, which are not only convenient, but protect the lenses from dust, etc. For the Darlot and carte lenses, we have flaps made that slip on over the front brass mounting, and have a thumb-screw on the right hand side for turning up the flap. Finally, an instantaneous drop for the Ross half-size lenses. After examining a number of instantaneous shutters, the old drop seemed the simplest and best, so we have such with us. I had the loose stops riveted together for safety and convenience, and carry all the lenses in a light wooden box with ordinary lid. They are fitted in with padding, so that they will not jam, scratch, nor break, and strap the lid down, the strap making a convenient handle for carriage. For headcloth the black waterproof cloth (not rubber) is the best. I have tapes about 18 inches long sewed on the

two corners, so that in windy weather it will not be blown away, and in carrying short or even long distances the cloth can be so tied around the camera, that no dust, dirt, nor rain will damage them. This little trick is one of the best I have ever met with, very simple and quick. For the 8 x 10 lenses, where they varied very much in size, we have a flange made within a flange, so that small lenses could be screwed in a brass flange, which in turn fitted in the flange of the larger lenses; this saves carrying extra fronts, which at times do not pack very well. Another very important item for our journey was a dark tent, in which to change the plates in and out of the plateholders, and perhaps for general use on the desert. It must necessarily be compact, strong, and not easily broken, and large enough to work in comfortably. After long deliberation and study I adopted the one I will now describe. A three-sided tent was made to fit inside or under the legs of our 8 x 10 tripod; the legs were spread about $4\frac{1}{2}$ feet apart at the bottom, in order to give plenty of floor space. The tent was made of rubber cloth (not gossamer) of the widest to be obtained; each side was a single piece. The inside was lined with a double thickness of Turkey red silesia; the bottom was enclosed same as the sides. One side was made rather full and had an opening about 12 inches from the bottom large enough to admit the upper half of the body. Around this opening, which lapped over the body when the operator was inside, was a strong draw-cord, which could be drawn firm and taut and exclude all the light. On the left side, opposite the entrance, is a ruby silk window, about 9 x 10 inches; outside of this is a curtain to regulate the quantity of light; outside on the bottom, at each of the three corners, are three iron rings, in which the three points of the tripod legs fit; half way up, or where the tripod leg is riveted, are three wooden buckles fastened to the tent with strong tapes, one on each of the three sides; these buckles keep the tent from hanging down, as they fit in between the two top pieces of the tripod leg. Inside on top, or just in the point, is a triangular block about four inches each side, the cloth is drawn well over this and fastened with

double-pointed tacks; on this board is screwed a brass nut by which the tent hangs fastened to the ordinary camera screw put down from the tripod top. This completes the tent. It is very strong, roomy, and can be packed almost anywhere, as it takes any shape. I found great difficulty in obtaining the proper color and quality of silk for the window. Finally, I saw some very close-grained heavy white silk, which I had Mr. Carbutt stain the proper color. His preparation also filled up all the pores, so that the most sensitive plate is safe under this light. In order to operate in this tent it is, of course, necessary to kneel down and enter only the upper part of the body. Some may object to this and say it is tiresome. True, it would be, if one is kept *very* long in this position, but I have found I could do all my shifting and changing without tiring. We have a number of pieces of rubber cloth and some rubber cement, in case a tear is made in the outside; also an extra piece of ruby silk for the window. As we wished to develop occasionally and see if everything was working well, a supply of chemicals sufficient was packed to take with us. Oxalate of potash in half-pound bottles; iron was powdered very fine and dried, also in half-pound bottles; a bottle of powdered alum; a four-ounce bottle of oxalic acid, saturated solution; in fact, I nearly filled the bottle with oxalic acid and added water to fill up to the neck, and corked well. A four-ounce bottle of bromide of potassium solution, half a pound of the dry salt, and hypo in half-pound bottles. Litmus paper was folded in tin-foil and carried in a box. All the bottles were well corked and a piece of pure rubber cloth tied over the corks, making them airtight. Also about three extra six- and eight-ounce empty bottles and corks, one eight-ounce wide-mouthed bottle I marked on the outside for measuring, taking the place of a graduate. I found the lid of a wooden pill box at one of our druggists held just one ounce of dry oxalate, and the lid of a smaller one held one hundred and twenty grains of dry powdered iron, these I marked for use. Four rubber 8 x 10 developing dishes, a sponge, towel, and a folding negative rack completed the outfit for development. The following list of articles and necessities come

next in order: lump of beeswax, a cake of Gihon's *Opaque*, small brush for same, two bottles of "Stratena," a bottle of rubber cement, two broad camels'-hair dusters, (from which cut off the long handles), one good soft chamois skin, a good diamond, two balls of thin, strong twine, one pneumatic holder (Bierstadt's), one box rubber bands, a large number of Scovill's record books, small bottle of parlor paste with brush, one dark lantern (ruby bull's eye), one box candles for same, three boxes safety matches, twelve sheets needle paper, six heavy treasury blotters, a yard of canton flannel (brown), extra rubber cloth strips enough, cut ready for sealing, tin boxes for return voyage, several straps, and two shawl straps (very strong and long), one bottle of Pond's extract for wounds, two mouth-drinking filters for the desert, one 33-foot tape measure, a mariner's compass, a magnifying glass, a box of tools, which contained all of those most necessary to have in time of need, viz., hammer, plane, screw-driver, gimlet, file, pincers, scissors, metal shears, whetstone, saw, copper wire for repairs, one pill box of small French nails, two boxes of brass screws, a paper of pins, box of assorted screw eyes and screw hooks, one paper double-pointed tacks, one Aiken's tool handle, several strips of sheet brass, and a paper of fine tacks. All the tools were small and took up very little space. We also took six sheets of Carbutt's ruby paper, rolled on a round stick. A few small tags for marking we found quite handy. And since we might wish to photograph inside the pyramids and in some of the tombs, for underground work we took with us one pound of magnesium wire, made into small torches by twisting in some iron wire, this was hermetically sealed for the voyage. A stylographic pen for making the records in the books is a very good thing, as the mark is in ink and will not rub like pencil. Last, but not least, we each have a silk American flag, which we wave on all particular occasions. Everything was packed in leather cases, each case numbered, and an inventory taken of every case with its contents, so as to be able at any time to get any article that was wanted. Joseph paper was packed wherever anything soft and yielding was required, as it

could be used in many ways afterwards. Each case had a printed label pasted in a prominent place, with name and destination, and cautionary words as to handling. As to personal luggage, a small valise each served us for all we needed.

Everything being ready, the lenses were taken aboard the steamship "Illinois," safely stowed in a vacant room, so that no shifting would take place, and we sailed for Egypt. During the voyage to Liverpool, we made a few instantaneous exposures on deck, and while doing so the crew were drilling in the life-boat service, so that we made several negatives of this very interesting scene. The waves were so very beautiful over the stern of the ship, covered as they were with foam, that we made several exposures in that direction, and just as I was about to release the drop, a flock of sea-gulls came before the camera, one of them turning his body full, when I made the exposure. In due course of time we left Brindisi on the "Bangalore" for Alexandria. The cooks on board were lascars, many of the crew were from Goar, in India, some were Turks, some Egyptians, in fact, a more motley crew could scarcely be imagined. The captain requested a picture of them, so we mustered them all on deck on the top-gallant fore-castle, and with the ship for a background, a number of exposures were made. A few were instantaneous, several had two and three seconds' exposure. We passed several of the Ionian islands on the coast of Greece, on one of which is Mount Saint Elias, which had its peak capped with snow. Of this we made a few exposures, and finally on the passengers of the vessel. Among them were two English amateur photographers, who were armed with an outfit of gelatine plates, of small size, to be used in India and Australia. Arriving in Alexandria on January 4th, we were surprised to find a gentleman who assisted very much in the custom-house, a Mr. Fervest, an Englishman, who was chief inspector, and who, fortunately, is also an amateur photographer. He understood our bulk of luggage and passed it through at once. We arrived early in the morning at the hotel, about 9.30, and were out ready to work at 10 o'clock. We had with us a dragoman to

show us the points of interest and act as interpreter. He was a fine old man, with full white beard, and, of course, wore his picturesque native costume. Our first point was the harbor, and by climbing a stairway leading on top of a house, we obtained a grand view looking out seaward, and showing the lighthouse and the Khedive's palace. As there was a great deal of motion of vessels and figures in the foreground it was necessary to make instantaneous exposures. Thence we drove around the bay as far as the arsenal, and from there obtained a fine view of the city, showing some shipping in front. A number of prisoners chained together in couplets were leaning aimlessly around the arsenal grounds; so, to make a picturesque foreground, we placed several in our picture, and afterwards while Mr. Wilson was getting out money to pay *backsheesh*, they made a tumultuous rush towards me, tangling me up in their chains and trampling and kicking the lens box and some plate-holders in a most alarming manner. Our dragoman's stick being brought to bear well on them they were soon driven away; I found that no damage had been done to any of our plate-holders or lenses, still it taught us a lesson in taking care not to distribute the *backsheesh* until everything of ours was secure. Our next point was Pompey's Pillar, or the column of Diocletian. On our way there our springs in the carriage gave out, and we were obliged to spend some time in a Moslem cemetery, where we secured some beautiful pictures, a high bluff surmounted with bright Oriental buildings forming a fine background. We were strictly cautioned not to step on any of the graves or tombs, and were refused permission to mount a tomb in order to get a better view. Men are always here on guard, whole families were encamped in the cemetery, moaning and crying. Another carriage arriving by this time, we soon arrived at Pompey's pillar, which does not offer much of beauty for the camera, but its history is interesting. It stands entirely alone, nothing, not a palm close by to break the sky or fill in the sides. Arabs are here innumerable; one wonders where they come from, so suddenly do they surround you. They are a

very good-natured set, but extremely inquisitive, crowding close around you. In making the exposures it was necessary, in order to keep the place clear around the base of the column, to employ several policemen and our dragoman, after which they one and all demanded *backsheesh*, so that we soon found that the very least service had to be paid for with *backsheesh*. Just as we were leaving we saw a very picturesque old woman, suckling a babe, carrying it astride her hips. After much coaxing and promise of *backsheesh* we made several exposures on her, with an Oriental doorway as a background.

Of mosques there are few fine ones, the better ones standing in the suburbs; they are odd-looking and are surrounded generally with palm trees which frame them into beautiful pictures. We secured a very characteristic picture of a village of mud-houses (very much like our Pueblo Indian houses), the walls of which were covered with the droppings of cows and camels. This is their fuel, as wood is scarce in Egypt. A very beautiful part of Alexandria is the street in which the consuls live; fine large Oriental palaces line it for several blocks. The buildings are bright and nicely decorated, so that one is tempted to stop before each one with the camera. In the centre of the city is an open square, called the Place Mahomet Ali; in the centre is a large bronze equestrian statue of Mahomet Ali, the great general, great grandfather of the present Khedive. In making negatives of this statue, we had no sooner planted the camera than we were surrounded with hundreds of curious Arabs,—in fact the crowd was so dense that police officers were required to clear the street. Having done Alexandria, we took the train for Cairo, which we reached after six hours' ride. Our first day's mark we spent in the famous Boolak Museum, the most complete and largest collection of Egyptian antiquities in the world. Mr. Brugsch Bey, who was in charge of the museum, gave us much valuable assistance. He stood up and arranged several mummies of the old Egyptian Pharaohs so that we were enabled to make large portrait heads of them. The camera certainly had some rich food spread before it.

Here is a black basaltic statue of Cephum, the founder of one of the great pyramids; it is a difficult subject on account of its color, but was in quite a good light. Again we have two mummy cases, ten feet high, made by wrapping one layer of linen over another, and fastening with pitch, until the thickness of several inches was reached. Another mummy case has the entire face covered with burnished gold, and the case as brilliantly colored as when it was first applied. Several very perfect sphinxes of syenite granite adorn the grand vestibule, also a dark-green statue of Rameses II., the great Sesostris. Although the exhibits are crowded for want of space, yet they are well arranged and make good pictures. My experience gained during the Centennial Exhibition in photographing exhibits was very valuable here, where cases, statues, etc., were arranged very much the same and crowded into very close quarters. Many cases of nicely arranged bronze, terra cotta, and stone images of Egyptian gods and goddesses, of royal jewelry and gold work, of fruit, vegetables, furniture, etc., of hundreds of "Scarabees" stood crowded close together. Still, by using good judgment and skillful handling, we secured the most important objects. An especially interesting collection is gathered in the room, dating back to the ancient empire, six thousand years ago. In this room is a wooden statue of a man standing, which undoubtedly is the oldest piece of sculpture in the world, it dates before the great pyramids; also a painting in brilliant colors, one foot wide by six long, which is six thousand years old, and many other statues and stone sarcophagi used for holding the mummy cases. Mr. Brugsch, who is an amateur photographer, wished a few negatives for his own use, of several very dark statues which he was unable to get, on account of their very black color and the poor light on them. So we exposed with a Euryscope, smallest stop, twenty-five minutes, for 8 x 10 and with Morrison 5½ in full opening, twenty minutes for stereos. These negatives, on development, came up beautifully, and gave Mr. Brugsch intense pleasure. They were made on the brand A plates. Mr. Brugsch furnished us with a vacant room in an out-

house attached to his residence, in which were tap and water sink for developing plates. I was very anxious to see how the plates would come up, as they looked well and free from spots before development. My method of proceeding was as follows: I took with me the necessary chemicals, bottles and dishes, first measured out fifteen ounces of water, then three ounces of oxalate, added to the water (cold) and shook until dissolved, it did not take more than a few minutes; in one dish I mixed some hypo-solution, and in a bottle a little saturated alumsolution; to the oxalate solution I added a few drops of oxalic acid, tested with litmus paper for acidity, found it acid; now for development: I poured five ounces of oxalate into the wide-mouthed bottle, measured out one hundred and twenty grains of powdered iron, added this dry to the oxalate, which took it up quite readily, shook a minute, then added ten drops of a sixty-grain solution bromide of potassium; finally added water to make up to eight ounces, for the A plates, while, had they been B plates, should have used it without adding any more water. The first plate developed was an 8 x 10 of a double statue of very dark color, almost black; in a half minute it began to come, and developed up slowly and full of detail, showing the cut in hieroglyphics in the deepest shadows, the half-tones were soft, and the shadows clean—in fact it was a perfect negative. The intensity was just right; I washed well under running water, and put it into the hypo-solution. Next I developed an 8 x 10 of a black sphinx which was equally difficult, but, like the first, equally successful. After developing a few more with like result, I went back to those that were fixed and washed well and flowed from the bottle a minute or more with alum solution, washed and stood on rack. Mr. Brugsch expressed great surprise and extreme pleasure at the simplicity and beauty of working gelatine, and although he had almost decided to abandon photography on account of the bother it gave by the wet method to the amateur, he will now take fresh hold with gelatine plates. He requested to have some of the same make as ours to be sent him from America.

(To be continued.)

FRENCH CORRESPONDENCE.

Process for Transforming Positive Images on Gelatino-bromide into Gelatino-chloride—Images capable of being Toned with Gold—Process of Captain Biny for Transforming a Negative into a Positive on Bitumen of Judea with Half-tones—Application of this method to the Woodburytype and Phototype—Atmography of Mr. Garnier—Subscriptions for a Commemorative Monument to A. Poitevin—Lectures upon the Work of Poitevin—Photographic Revolver of Mr. Marey—Sensitized Plates having Continuous Motion, by Mr. Janssen—Scientific Application of Photography—Transit of Venus.

MUCH has been said in regard to the advantage to be obtained in preparing mixture papers with gelatino-chloride for making positive prints capable of being toned with gold. The tone given by gelatino-bromide being of a cold-black and not agreeable to the eye, it would be preferable to be able to substitute the warmer tone of prints toned with gold. Unfortunately the question of gelatino-chloride of silver remains still in a theoretical state, and until we can act upon direct gelatino-chloride preparations, we point out an indirect method for arriving at the same result. Morgan paper being used, for example, to print positives by contact, operate as usual by terminating the image developed with oxalate of iron, fixing it with hyposulphite and washing it well. This being done it is immersed in a rather concentrated solution of bi-chloride of copper and allowed to remain until it whitens. It is then washed in several waters and dried in a dark place. It is then exposed to direct or diffused light behind the very clean glass of a pressure frame. The reduced silver, which formed the image, having been transformed by the chloride of copper into chloride of silver, this last in its turn is reduced by the exposure to light. When the action of reduction is judged to be sufficient, tone with gold and wash in several waters without resorting to a final fixing, since all that is white in the paper has been freed from the salts of silver soluble in hyposulphite of soda. On the whole, this operation of trans-

formation is not very complicated. It can be done, when desirable, without its being necessary to continue the work from beginning to end. The ordinary positives printed on gelatino-bromide, when once made, are put to one side and their transformation taken up at will. This idea occurred to us whilst working on with a process of Captain Biny, about which we will now enter into some details.

Captain Biny, continuing his interesting experiments on the use of bitumen of Judea in photography, has conceived a process giving bitumen positives with half-tones.

For this purpose he makes use of a negative, which is lost, since it is changed into a positive. This is his mode of operating. He covers with a varnish of bitumen of Judea (twenty parts of bitumen of one hundred parts of benzine) a gelatino-bromized negative unvarnished and very dry. When he has obtained, by means of heat, the complete desiccation of the bitumen he exposes his negative, the glass-side uppermost, in a pressure frame, either in the sun or in diffused light, and he uses the ordinary methods to make sure that the action of the light has been sufficient. He then immerses the plate in a dish filled with essence of turpentine, which dissolves all the bitumen not acted upon by the light. When he judges the development sufficient, he washes in several waters, and even in acidulated water, to thoroughly clean the surface of the image, and he immerses the plate in a bath of bichloride of copper at about the saturation point. The portions of the negative not covered with bitumen, or but slightly so, are penetrated by this re-agent, which turns into chloride of silver all the reduced silver of the negative. He now washes and treats with hyposulphite of soda, which dissolves the chloride of silver and thus obtains a positive image entirely formed by the bitumen and presenting by transparency the most beautiful half-tones. It has always been said that bitumen of Judea was not susceptible of giving half-tones. This arises in general from the light being admitted from above. But if on the contrary the luminous rays are made to act from below, that is to say from the close contact of a print, either negative or posi-

tive, it is possible to obtain images with half-tones in the same manner as Captain Biny. The result is the same if the positive or negative be covered with a coat of bichromatized gelatine, or of albumen and bichromatized gum.

This process of obtaining reliefs gave us the idea of perfecting, as will be shown, the method published by our learned colleague, Woodbury, for easily making the reliefs necessary in producing the moulds. Instead of using a paper covered with a thick mixture, which is difficult to dry without injury, we prefer to print upon a gelatino-bromized plate a good positive, which we finish as if it were to be used in this state, but without gumming or varnishing its surface, upon which we put a rather thick coating of gelatine dissolved in water.

Gelatine,	. 15 grammes (4 drms.)
Water,	. 100 " (43½ ")
Sugar,	. 2 " (31 grns.)
Glycerine,	. 4 c. c. (1 fldrm.)
A little India Ink.	

The plate being placed horizontally on a support furnished with adjusting screws, it is easy by pouring the liquid on the centre to spread it evenly over the whole extent of the plate, which should be previously warmed if the temperature of the air is a little low. When the gelatine is set, immerse the plate, the gelatine uppermost, in a saturated solution of bichromate of potash. Now rapidly wash in water and dry over a dish filled with sulphuric acid, or chloride of calcium. Now expose to light by the glass-side, the gelatine-side resting in the interior of the frame upon a black ground. After sufficient exposure, develop in warm water, and we have a negative in relief adhering to the plate, and on which it is only necessary to make the adherence of a sheet of foil to obtain a mould giving Woodburytype images. In this way it is possible to avoid rather delicate manipulations, which do not always succeed. It is possible to dispense with the coloring matter in the mixtures, but with more or less of it we obtain reliefs more or less fine.

For making phototype clichés this process of printing through an image already impressed on a glass-plate, proves itself

highly useful, especially in making line prints in the style of typography, a negative giving on gelatine a positive with lines slightly in relief, and very fine, especially if a thin coating of bichromatized gelatine has been used. It would be possible to print directly a large number of prints from this plate, and all the better, because it is not necessary to wet. It is the portions in relief, which, well tanned by the action of the bichromate of potash in the presence of the light, receive and give off the printing ink. It is possible by this means to make typographic clichés of extreme fineness, and much superior to anything that could be made on metal with the aid of chemical photo-engraving. It is so easy by using gelatino-bromide preparations to make negatives or positives on glass, that one should not hesitate in many cases to have recourse to this process of printing by direct contact. In order to make reliefs and sunken lines, to make counter-moulds to be used afterwards in applications to galvanoplasty, it is possible to attain results much superior to any other analogous ones.

Mr. Garnier made known at the last meeting of the French Photographic Society, a new process which he calls *Atmography*, which means impressions by vapors. This process is very curious. We do not know if it already gives all that it is able to do, or if it is susceptible of new improvements; we hope so, however. At any rate the present results are already surprising. The principle of this mode of printing is as follows: Vapors capable of penetrating a chemical substance do not diffuse themselves when they possess the property of forming a combination with this substance. Vapor of water penetrates gelatine and diffuses itself, because it does not combine with it. An alcoholic solution of perchloride of iron combining with gelatine will not be diffused, but will form a sharp line. Mr. Garnier prepares a copper-plate, which he coats with a sweet liquid sensitized with bichromate of ammonia. This plate is exposed under a positive, then dusted over with dry albumen reduced to an impalpable powder. To see the development of the image, mix a little plumbago with the albumen. This plate is exposed for a few

moments to the fumes of hydrofluoric acid, then rapidly placed in contact with a plate covered with a saccharine solution containing borate of soda. This simple contact is sufficient to enable the hydrofluoric vapors, set free by each line and by each point of the albumen image, to produce their effect on the borated film. It is an effect of deliquescence, as may be proved by passing over the plate a brush dipped into a powdered coloring substance. We thus develop an image absolutely in the same manner as by all the other so-called powder printing processes. In the space of a few moments it is possible to obtain in this manner a very great number of vitrifiable prints, if the powder employed is a metallic oxide mixed with the flux. It is possible to conceive by this rapid sketch the importance of such a process, especially in its application to the decoration of porcelain, glass, and enamel.

This new dusting process does great honor to Mr. Garnier, who, as is known, has a specialty of this mode of printing. His process of helio-engraving practised on a large scale by Mr. Dujardin, rests entirely upon the mode of printing with powders.

A joint committee has just been formed by the French Photographic Society and by the Syndical Chamber of Photography for the purpose of raising a subscription for a monument to be erected to Poitevin. Now that efforts are being made to honor the memory of Nicéphore Niépce and of Daguerre, it is but right to do the same in memory of Poitevin, who has rendered such great services to industrial photography.

We learn with much satisfaction that active steps are being taken to aid the family of Poitevin, at the Academy of Sciences and among several societies friendly to scientists.

Mr. Davanne has just delivered for this object, before the Society of the Friends of Science, presided over by Mr. T. B. Dumas, a lecture with experiments and lantern projections. For our part we have delivered a similar lecture before the Syndical Chamber of Photography, the text of which we send to the Editor of the *Philadelphia Photographer* (published on page 165).

In finishing this letter we recall the very interesting experiments just made by Mr. Marey, of the Academy of Sciences, to study the law of the motion of flying birds by means of instantaneous photographic prints. Thanks to this means Mr. Marey, following in this the example set by Mr. Muybridge, has succeeded in obtaining a series of successive prints in a photographic revolver, which permits of the reconstruction of the flight of a bird, if the series is looked at in a phenakistoscope.

Mr. Janssen, on the other hand, has shown that the interrupted movements are unnecessary. He thinks that it is possible to reproduce beings in motion by means of sensitized plates having a continuous movement.

As is seen, photographic art is attaining in scientific studies a more and more elevated position, a new proof of which will be furnished at the time of the transit of Venus over the sun, since all the scientific expeditions entrusted with the study of the transit are now investigating the best photographic processes to reproduce in the most exact manner the phases of the transit. For this purpose it will be necessary to make from one hundred and fifty to two hundred successive prints in the five hours that the phenomenon lasts. In spite of routine which advises the use of daguerrotype plates, we recommend gelatino-bromide plates having a very thin film upon a very solid substratum.

LÉON VIDAL.

PARIS, May 1, 1882.

EFFORTS are being made by the *Chambre Syndicale de la Photographie* of Paris, towards the addition of a special room in the custom-house, where any article marked as sensitive to light can be properly examined by the officials without injury. While it can scarcely be expected to further the importation of prepared plates in quantity, it will certainly prove itself valuable to the travelling photographer. The same active Society is endeavoring to obtain certain modifications of the very strict regulations now in force relative to photographing in the streets of the capital.

GERMAN CORRESPONDENCE.

Doubtful Keeping Qualities of Gelatine-plates—Wight's Intensifier for Gelatine-plates—Sulphate of Sodium in Dry-plate Developers—Dextrine in Gelatine-plates—Keeping Qualities of the Invisible Image in Gelatine-plates—Photography on Copper—Electro-Photographic Gallery in Vienna.

WILL gelatine-plates keep, is a question which is generally answered in the affirmative. It is an established fact that gelatine-plates, which have travelled all around the world, remain as fit for use as they were in the beginning. I myself fully believed till now in the keeping qualities of the gelatine-plates, but recently I observed in some cases that a very rapid decomposition in them took place. I got a number of dry-plates from a first-class manufacturer and found the fresh ones quite excellent indeed. After the lapse of three months, however, I noticed in developing a dark margin around the edges, which softened towards the centre of the plate, and in six months afterwards this occurrence was much more marked yet. Plates obtained from another manufacturer had remained quite unchanged in the meantime. A clever amateur, Mr. Wight, here, avers that the reason of the decomposition is to be looked for in the manner of packing—in the above instance—between layers of paper. He believes that the injurious influence of the packing might be almost entirely obviated by taking care before packing that the plates are not only nominally, but actually dry, as far as the hygroscopic properties of the gelatine will allow. He always keeps his plates for a couple of days in a special dry-room over chloride of calcium, after they are apparently quite dry. I have bought a lot of different plates of different makes, in order to test their durability, and will report on them in a year from now. For the portrait photographer, who rapidly uses up his stock of plates, the keeping qualities of the plate are of secondary importance, but for landscaping it is of paramount interest.

The intensifying of the gelatine-plate offers some difficulties, as is well known.

The other day, the above-mentioned Mr. Wight showed some gelatine-plates intensified with silver, which were so dense that they appeared quite opaque. He uses the following formula for intensifying:

I. *Iron Intensifier*.—The following stock solution, which keeps very well, is prepared:

G	{	5 parts of good, white Gelatine dissolved in
		50 " Glacial Acetic Acid, diluted with
		100 " Water, and filtered.

For use, dissolve—

E	{	4 parts of Sulphate of Iron in
		120 " Water; filter and add
		10 " Solution G.

(This solution keeps for some time.)

S	{	3 parts of Nitrate of Silver in
		100 " Water, to which is added
		4 " Glacial Acetic Acid.

(Also keeps well.)

After the plate has been washed thoroughly, it is placed for some minutes in a saturated solution of alum; in order to prevent the risk of frilling the film, in the following acid bath: After the alum, the plate is rinsed, and placed for about five minutes in a three per cent. glacial acetic acid bath. In the meantime, pour (for a 5 x 8 plate) about 5 c.c.m. of silver solution (S) into a glass, and place that and the bottle with the solution E within easy reach. The plate is then removed from the acid bath, rinsed, and the solution E at once poured over it, taking care that the plate is well covered; if necessary aid with the finger. Care must be taken to have an abundance of solution on the plate. The solution is now poured off the plate into the glass containing the solution S, and then at once pour back again over the plate. The intensification goes on evenly. If red patches form, it becomes necessary to rinse forthwith, and then to pour on a two per cent. solution of cyanide of potassium. But if care is taken, nothing of the sort will appear.

II. *Sublimate Intensifier*.—This intensifier, Mr. Wight uses only in case of need and for certain purposes. He strengthens first somewhat with the iron-silver intensi-

fier, although he can use it also without the latter. Here is the formula :

4 per cent. solution of Sublimate and a
2 " " Cyanide of Potassium.
(Both keep a good while.)

The manipulation is quite simple—after the sublimate has acted thoroughly, and the plate has been rinsed well, the cyanide solution is poured over it. A warm, brown tone appears at once, and the shades remain quite clear; when ammonia is used this is seldom the case. Also, no danger of turning yellow is to be feared. Of course, thorough washing is strictly necessary.

As the gelatine-plate is our topic just now, I will remark yet that the addition of sulphite of sodium (Na_2SO_3) to the pyro-developer, first proposed by Berkeley, is also good in the oxalate of iron developer. Fresh developer of that kind treated with 15 drops of saturated solution of sulphite of sodium to 30 c.c.m., gives a clearer picture, less subject to veil than a developer without this addition. The addition showed itself to be yet more effective for restoring old oxalate of iron developers. A developer six months old of that kind treated with the above-mentioned quantity of sulphite of sodium, developed as well as a fresh one.

Another important addition, which can be made to the gelatine emulsion as well as to the developer, is dextrine. To make the gelatine film more easily penetrable for the developer and fixing solution, certain additions, like glycerine, have been repeatedly recommended. Henderson and Szekely recommend dextrine, that is to say, $\frac{1}{2}$ to 1 per cent. Dextrine is said to keep the shades clear, that is to say, to prevent the formation of veil, and for this reason Szekely recommends to add the same to the developer at the rate of 2 cub. c. dextrine solution, 1:100 to 100 c.c. developer.

The question: "How long can gelatine-plates retain the impression made by light?" is an interesting one. According to older observations, the latter vanishes entirely in about six months, but Mr. Wight asserts that the plates retain it much longer. A plate, prepared with Monckhóvén's gelatine emulsion, was exposed in April, 1879, and developed in April, 1882

—fully three years afterwards. The plate showed some signs of decomposition, but yet made a picture. Better still was a Wight's plate, which was developed two and a half years after exposure, and only showed some white spots. The margins of the plate had become partly black, which, according to Mr. Trumm, appears to be owing to the manner of packing.

The photographic literature of the day brings a wonderful amount of new and interesting observations, and one of the most striking is, no doubt, Major Waterhouse's observations on photography on copper.* Waterhouse prepared bromized copper plates by immersion in bromide of copper (CuBr_2) and exposed them. The image is at first invisible, but is easily developed with the alkaline developer (pyro and ammonia or oxalate of iron). Pyro makes a black, iron a more red, picture. The picture is fixed with a weak solution of cyanide of potassium, which makes the yellow ground brighter. Fixing soda fixes also, but the picture breaks up under its influence. The finished pictures are not dissimilar to daguerrotypes, and are just as easily injured as they are. So far, however, the interesting process is as yet somewhat unreliable in practice.

The electric light continually finds more favor here in photographic circles. In February, Messrs. Stagel & Eckel opened an electro-photographic studio *a la* Liébert, in Vienna. The gas-engine which drives the Siemen's light machine has a strength of eight horse-power, the light from 4,000 to 5,000 candles. (With eight horse-power, more might be expected.) The regulation is done by hand. For photographing, wet-plates are used. Time of exposure: 5 to 6 seconds.

Very truly, yours,

DR. H. W. VOGEL.

BERLIN, April 30, 1882.

MR. ACKLAND, of London, has made some successful experiments with an infusion of quince seeds used instead of gelatine for emulsions.

* See page 179.

Editor's Table.

PICTURES RECEIVED.—Mr. M. H. ALBEE, of Marlboro, Mass., sends us a number of cabinets and cartes. He speaks as follows of the illustrations in the April number: "I think Mr. Robinson is an artist in the full sense of the word, and no photographer can fail to be benefited by reading anything from his gifted pen." Mr. ALBEE also says: "The piece on prices, by Mr. R. E. WOOD, is excellent—more just like it will do all good. I send you herewith a few samples of my work. Being all alone, I do everything, from the painting of the background to the finishing of the picture. I have worked under some disadvantage in painting my backgrounds, not having had any instruction in drawing or painting but what I received some fifteen years ago, when I was fresco painting for a short time, and what I have gleaned from books, until very lately. Mr. FRANK BROWN, a scene painter of well-known ability in the West, gave me the desired information which other background painters refused to give me, and for which I am very grateful. If there were more FRANK BROWNS in the world there would be less of eating one another up than there is now, and more could follow out their inclinations. Live and let live has not been fully learned by most men." One of the cabinets is from the background mentioned above. We congratulate Mr. ALBEE on his success in this direction. The background represents a forest scene, and has been composed and executed with marked ability. From Mr. H. McNEILL, Fredonia, N. Y., a charming cabinet portrait of a boy, made on an Eastman plate with three seconds' exposure. From Messrs. FRIEND & SMITH, 244 Woodward Avenue, Detroit, a number of very superior cabinets. The posing and lighting are faultless, and of the manipulation we have only to say, that a slightly lengthened exposure on the *dark subjects* will make it the same. From Mr. COOK ELY, Oshkosh, Wis., well-posed cabinets, the two of a lady in white with marine background being particularly good.

THE Cleveland *Leader* of May 15th contains a lengthy correspondence from eminent engineers and scientific men, on the subject of the proposed adoption of the metric system of weights and measures. Whatever may be the advantages of a new system that is to be, metric, decimal, French, or what not, it is very certain that

the confusion caused by its sudden introduction would give rise to many blunders, and cause great trouble. The advocates of the metric or decimal system do not seem to consider, nor to make sufficient allowance for the fact that, easy as it might be to furnish us with rules and sticks graduated off in metres and their parts, and with measuring glasses and weights accurately made, that it would be by no means so easy to furnish us with the mental standards of reference which our English feet, inches, and yards have become, after years of intimate knowledge of them.

WE regret to announce the death of our friend and subscriber, Mr. George Alfred Stacey, of Lockport, New York. The following obituary appeared in the Lockport *Daily Journal* of April 29th:

"At the residence of his father (John Stacey), No. 250 Locust street, George Alfred Stacey, a young man having many sincere friends, fell a victim this morning to that scourge, consumption, after a rather brief illness. He was in the 24th year of his age; had always been a resident of Lockport, and an exemplary young man. He was a member of Council, No. 307, of the Royal Arcanum, of this city. The loss by death of any friends, even when gathered as ripe grain to the harvests, is extremely sad to us, but the taking away of a young man, cut down on the threshold of life's journey and with an honorable and hopeful career before him, seems to carry with it an inexpressible feeling of bitterness at what seems so hard and incomprehensible. The bereaved family have the sincere sympathy of all in the sorrow."

No one who has not had a large experience in out-door photography would be likely to compile a list of requisites containing everything that is useful and nothing that is not, like the one given by Mr. Rau, on page 183. While it is hardly probable that *all* of the articles, such as the various tools, would be required, still, by taking such things, all ordinary contingencies are provided for, and the photographer's peace of mind ensured. And this latter is not the least of the qualities desirable in one who goes far from his home to work with the camera and chemicals.

SOAP BUBBLES.—Our cover-cut this month is one more example of the capabilities of the Ives' process. The subject is copied from a photograph by Mr. O. Pierre Havens, of Savannah, Ga. The picture makes a very good study, and tests the new process in another direction—the possibility of producing a black background by this mode of photo-engraving.

WE find the following in the *Seranton, Pa., Republican* of May 3:

“It is a pleasure for us to notice every evidence of improvement in our growing city. One of the latest is the charming photographic and art gallery of our townsman, Mr. L. R. EVANS. It is certainly a credit to the taste of the projector of the enterprise, and is well worthy of praise; everything seems to bespeak the highest state of art culture in this department. The large reception-room is fitted with a Gothic design in its carpeting, upon which stand ebony and gilt furniture upholstered with dark Pompeian red plush. The walls are tinted a light

brown with maroon and gilt border most beautifully adapted to the display of art work. The double easel show-case is an ingenious and convenient contrivance for the inspection of work and is a wonder in itself. A relic of the old Revolutionary times, an old style walnut sofa, with sweeping curves and brass-head nails, is an attraction and a curiosity which adds not a little to the truly tasteful magnificence of the parlors. Water-color miniatures and oil portraits combine with these appropriate fittings to give assurance that Mr. Evans has entered with a determination that his work shall be the best possible to produce.”

WE also observe a most flattering notice of some portraits of the seniors at Cornell University, Ithaca, N. Y., by Mr. E. D. EVANS, of that city.

THE April number of the *Boletín Fotografico* is embellished with a handsome cabinet portrait of a lady by the artotype process.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.



The new designs continue to increase:

No. 469. "On the Beach" is a refreshing, breezy, realistic picture. Per foot, 30 cents.

No. 470. "Under the Trees" indicates the motion of gently swaying branches. Is, in treatment, a true background. Per foot, 30 cents.

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No. 441. Garden Wall, column separable, \$20.

No. 447. Garden Seat, three changes. Lately improved. Can be used with No. 441 Wall, or any landscape, garden, or seashore background, \$14.50.

No. 433. The Head Rest Plants, an ingenious device for masking the base and standard, \$1.50 each.

No. 474. L. F. S. Lake is a quiet lake, with mirror-like reflections; suitable for general work, 30 cents per square foot; and the Profile Boat, with or without deck, \$10 and \$12.

And lastly, the *Reversible End Floor Cloth*, Beach and Landscape; clean, quickly handled, and durable, \$12. This is an entirely new departure in photographic backgrounds.

I would call the attention of my patrons to the following already tested and approved articles:

The Profile Rocks, \$8.

No. 414. Eastlake Cottage, three changes, \$30.

Goods intended for Convention photographs should be ordered now.

More new things next month.

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Size.	Unmounted.	Mounted.
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20 x 24.....	2 00.....	2 50
22 x 27 }	2 50.....	3 00
25 x 30 }	2 50.....	3 00
26 x 32.....	3 00.....	3 75
29 x 36.....	4 00.....	5 00
30 x 40.....	5 00.....	6 00
35 x 45.....	6 00.....	7 50
40 x 50.....	8 00.....	10 00

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All orders must be accompanied by the cash. Make all P. O. orders payable to
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THE NEW GELATINE BROMIDE PAPER, first introduced by us, for instantaneous printing, enables us to send enlargements for tracings by return mail.

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THE NEW
EURYSCOPE.

Try this new lens, and you will never buy any large portrait lenses. Voigtlander & Son's No. 7, and the smaller sizes, are very quick-acting, but as regards large-sized plates, the Euryscopes are far superior for groups, panel pictures, and large heads.



WILSON'S PHOTOGRAPHICS

Is the most complete, thorough, photo-instruction book ever published. Second thousand in store. See advertisements. \$4.

NOTICE OF REMOVAL.—Mrs. Clarke, Artist, late of 561 Druid Hill Avenue, Baltimore, begs to inform her friends and the photographic profession that she has removed to 2104 North 20th St., Philadelphia, Pa., where she will be happy to receive any commission for water-color painting. Terms, etc., on application to Mrs. Clarke, or to the office of the *Philadelphia Photographer*.

S. G. NIXON, Portrait Artist, 813 Arch Street, Philadelphia, Pa. Solar enlargements finished in crayon, water color, and Indian-ink in true artistic style, and the likeness and expression faithfully preserved. Also small colored and Indian-ink work, etc. Terms moderate.

WANTED.—A good operator to take views at shore. One used to both wet and dry plates preferred. Apply to

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THE WONDERFUL EURYSCOPES and NEW PORTRAIT LENSES.

Just received, a large invoice of the above Lenses. Those who have not succeeded in getting them, will do well to send in their orders at once.

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Shows you how to group and pose children naturally and gives fine examples of work. Read the partial index herein. \$4.

FOR SALE.—A good gallery, with or without instruments for taking pictures of all sizes, from gems (16 on $\frac{1}{4}$ size plate) to life-size. Artotype license and outfit; Megatype outfit and permit; Printing Press and 32 fonts of type. The reception-room is 17 x 18 feet; operating-room, 12 $\frac{1}{2}$ x 46 feet; large north, side, and skylights; double dark-room; frame and store-room; two closets; coal-room, etc. There are living rooms attached that could be rented to other parties or for other purposes. Running water and gas. Private entrance from the main street. A jewelry store, a book and music store, and a furniture store occupy the first floor; no rum or tobacco sold in the building. This gallery is located in Flemington, which is the county seat of Hunterdon County, N. J., 50 miles from Philadelphia, and 52 miles from New York. No competition nearer than 12 miles. Population, 4000. Good back-country trade. *Always* pay in advance; no proof showing. Work mostly cartes, cabinets, and panels; prices, \$3, \$6, and \$8 per dozen. If you wish to make a change, come and see it.

G. B. SPENCER.

FOR SALE.—A well situated gallery in New York city. Address

GEORGE MURPHY,
Photo. Stock Dealer, 250 Mercer St., N. Y.

MAKE YOUR OWN ENLARGEMENTS.—The Patent Gem Solar Camera will print the finest enlargements on albumen, platinum, or plain paper. Only \$60. Send for reduced price-lists of larger instruments. D. A. WOODWARD, Baltimore, Md.

FOR SALE.—
 One 6 A Dallmeyer Lens, \$540 00
 One 18 x 22 Scovill D. L. Box, 108 00
 Stand, 18 00
 Bath-tub, 18 x 22, 25 00
 \$691 00

I will sell altogether for \$400 on the spot. The lens is a magnificent one, and the box and stand are Scovill's finest, and are the same as new. Shield and holder, etc., in perfect order.

A. E. DUMBLE,
 44 State St., Rochester, N. Y.

A RARE CHANCE.—Large business interests in the West requiring my attention, I desire to dispose of my photographic establishment, 44 State Street, Rochester, New York.

The population is about 100,000. The city is considered one of the handsomest on the continent. It has always been a famous photographic centre on account of the excellence of its artists. My rooms are in the very heart of the city; all on one floor. Skylight, north, and one of the finest and largest in the state. Reception-room is spacious and handsomely arranged. There is every convenience that the most fastidious photographer could wish for. Rent moderate, and skilled employés in each department, so that one entirely unacquainted with the business will find no difficulty in continuing it. Our work has always been A1. The seven years' negatives return us the interest on \$4000 or \$5000 yearly. I have no desire to peddle my rooms and will accept the first man at the merely nominal sum asked.

The following gentlemen have kindly allowed me to use their names as references: J. F. Ryder, Cleveland, O.; E. L. Brand, Chicago, Ill.; N. Curtis, Syracuse, N. Y. Enclose stamp, and address

A. E. DUMBLE,
 44 & 46 State St.,
 Rochester, N. Y.

FOR SALE.—On account of poor health (consumption), I offer my photographic rooms for sale. For particulars, address

CHARLES A. STACEY,
 Lockport, N. Y.

FOR SALE AT A BARGAIN.—Photographic room in the healthiest and wealthiest place of its size in Pennsylvania. Good business; can be enlarged. Holly system water and gas. Population 8000. The prospects for Titusville were never better than now, as the best strike in oil, 646 in Warren County, opens up the largest territory for years. Being nearest, it must give Titusville a boom. Railroad will be built at once. J. C. GOETCHIUS, Titusville, Pa.

BARGAINS.—One No. 3 A Voigtlander portrait lens, for 8 x 10 plates; first-class instrument, \$40. One wide-angle Morrison hemispherical view lens, for 11 x 14 views, \$25. One 1/2 Darlot portrait, central stops, \$7. One 1/2-size quick worker portrait, plain, \$10. One A. O. Co. cone bellows, 8 x 10 view box, best quality, used for only 6 plates, new (cost \$40), \$28. All goods warranted as represented. Will be sent C. O. D. Lenses subject to four days' trial; money retained by express agent, and returned if not satisfactory.

BACHRACH & BRO.,
 S. E. cor. Lexington and Eutaw Sts.,
 Baltimore, Md.

WANTED.—A first-class negative retoucher. One equally good in crayon and water color work wanted by July 1st at the latest.

LOQUIST BROS.,
 Peoria, Ill.

G. B. W. L. J. S. x

A RARE CHANCE TO LEARN SHORT-HAND.—Rowell & Hickey, the publishers of the *American Short-hand Writer*, have opened the most complete school of short-hand in the United States at Boston, Mass.

For \$1.50 they will send this year's volume of their magazine, containing a full course in phonography, and correct the lesson exercises of all subscribers by mail, free. This offer holds good until January 1st, when the price of subscription is to be advanced to \$2.50. When the fact is known that a full course of instruction taken at their school in Boston costs \$75, the rare chance afforded by this extraordinary offer may be realized. Short-hand clerks, not expert, command a salary of \$75 a month upwards, while the standard prices paid for law reporting is \$10 a day. Why not get up a class in phonography here to learn through this medium? We will head the list ourselves, and receive and forward subscriptions for the *Short-hand Writer*.

DECEMBER 1st, 1881.

No. 18. VIGNETTE PAPERS, WAYMOUTH'S. No. 18.

The old form of No. 18, Waymouth's Vignette Papers, oval, has been discarded, and a *new pear-shaped* style is now ready in its place. It is a beautiful piece of gradation and prints perfectly. Price \$1.25 per dozen. For sale by all dealers. See advertisement.

No. 18. NOW READY. No. 18.



WILSON'S PHOTOGRAPHICS

DEVOTES 58 pages to instructions in posing and lighting the figure. See advertisements. \$4.

GIHON'S OPAQUE.—As a rule, photographers are familiar with this most convenient article of gallery use, but, doubtless, there are some who still are unacquainted with it. It is just what it claims to be, and so announces on the wrapper of each box: "A dense, non-actinic paint, for stopping out imperfect backgrounds, or defective skies in negatives, for coating the inside of lenses or other brass work, etc." It is an invaluable article, and should have a place in every photographic establishment in the country, whether large or small. A photographer lately remarked to us, "GIHON'S Opaque is worth its weight in gold." This sounds rather exaggerated, as a cake of the compound is quite large, and of some weight; still it is most valuable, and its place can be filled by no other article now in the market.

That Opaque is very generally used, and that its use is daily growing was proved to us on a recent visit to New York. In the store of SCOVILL MANUFACTURING COMPANY, we noticed a large pile of these neat little packages, and on inquiry were assured that the demand was very large, and steadily increasing.

To those who have not tried opaque, we would say, send fifty cents to your stock-dealer and get a cake. You will wonder how you ever got along without it. Sold by all dealers.

EXCHANGE COLUMN.

To accommodate those who have old apparatus, etc., to EXCHANGE (not sell), we offer to insert advertisements in this column at the low rate of 15 cents per line (of seven words), or fraction of a line. It will be found a cheap and helpful way of "unloading" useless articles about your studio for better ones. Cash to accompany all advertisements.

BALUSTRADE and combination ground for interior or exterior ground. Also photographic literature to exchange.

W. C. STINE,
Sycamore, Ill.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

A young lady wishes a situation as a retoucher. Address C. H. P., 3947 Vanilla St., Phila.

By a portrait and landscape operator. Wages, \$20 per week. F. R. Parsons, 2902 Washington Avenue, St. Louis, Mo.

Permanent situation as operator and general workman, or would rent a gallery. Can furnish outfit, also reliable references. Address Photographer, Post Box 304, Hartford, Conn.

By a young man as retoucher or printer in a first-class gallery. References exchanged. Eastern States preferred. Address Theo. Heinig, Dayton, O. Care J. M. Appleton, Dayton View.

A photographer of 12 years' experience wishes to secure a position in the stock business. Would go on the road; first year very low. Address Lock Box 23, Edinburg, Ind.

By a No. 1 temperate and reliable man and wife, competent to take charge of the photograph business, and not afraid to work. Address Photographer and Retoucher, Box 448, Shelby, O.

By a young man of sober and steady habits, a situation as general assistant in a photograph gallery; can print aud tone. In or out of the city; out west or down south preferred. Address Charles Mayer, 211 E. 105th St., New York.

As operator or dark-room man. Formerly with Wells & Co., P. C. Duchochois, and A. Bogardus, of New York. Have no objection to leaving the city for a permanent position. Fred. Hillman, 190 Eighth Ave., New York City.

As operator exclusively, can give fine negatives every day; good in posing and lighting, and especially good with children. None but good galleries need to write, as I want a No. 1 place. Address Photographer, Box 385, Lima, O.

An operator in one of the leading galleries in Chicago will give his time against capital to start a gallery in any lively city, or in a business already established, where fine work will be appreciated. Address 86 Centre Ave., Chicago. Care of Chas. Callin.

As printer and toner; can do or assist in operating, also do fair retouching. Will do general work in a gallery. Any one wishing my services will please state what wages will be paid. Direct me at cor. 25th St. and 1st Ave., South Minneapolis, Minn. Chas. V. R. Clark.

An operator of experience desires engagement at summer resort; rapid workman. Portrait or view, wet or dry process. Address Mr. Viewist, 905 Pennsylvania Ave., Washington, D. C.

By a first-class artist and retoucher, for ink, water, crayon, etc. Address Schlickeisen, 64 N. Gay St., Baltimore, Md.

By a reliable and trusty workman, to operate, print, retouch, color, etc. In the business fifteen years. A permanent situation wanted. Address M., care of Edward L. Wilson, 914 Chestnut St., Philadelphia, Pa.

ALBERT MOORE ^{THE} SOLAR ENLARGER, THE LONGEST, LARGEST, AND BEST. 828 Wood Street, Philadelphia.

A NEW CATALOGUE OF LANTERN SLIDES AND LANTERNS

READ IT. FIFTEEN CENTS IN STAMPS.

TELLS OF GASES WITHOUT BAGS, NEW LISTS OF SLIDES,
THE ELECTRIC LIGHT IN THE LANTERN, NEW LANTERNS.

Lantern Lovers should be sure to Examine it.

EDWARD L. WILSON, 912 & 914 Chestnut Street, Philadelphia.

J. L. CLARK,
GOLD AND SILVER REFINER,
ASSAYER AND SWEEP-SMELTER,
REMOVED TO
823 Filbert St., Philadelphia, Pa.

RETURNS MADE IN STRICTLY PURE CHEMICALS.

REFERS TO, BY PERMISSION:

JOHN CARBUTT, Dry Plate Manufacturer, Philada.

WM. H. RHOADS, Photographer and Artist, Philada.

GILBERT & BACON, Photographers and Artists, Philada.

WM. H. CLIFFORD, Photographer and Artist, Philada.



ROBINSON'S PICTORIAL EFFECT IN PHOTOGRAPHY.

SHOULD BE READ by EVERY NEGATIVE MAKER PRACTISING IN and OUT of DOORS.

CONTENTS.

CHAP.

- I. Introductory.
- II. The Faculty of Artistic Sight.
- III. Balance of Lines and Contrast.
- IV. Balance—Example.
- V. Balance—Examples—(*continued*).
- VI. Unity.
- VII. Examples—Expression.
- VIII. Practice—The Choice of a Subject.
- IX. Simple Rules.
- X. Figures in Landscape—Truth.
- XI. The Sky.
- XII. The Legitimacy of Skies in Photographs.
- XIII. The Composition of the Figure.
- XIV. Pyramidal Forms.
- XV. Variety and Repetition.
- XVI. Variety and Repetition (*continued*)—Repose—Fitness.

CHAP.

- XVII. Portraiture.
- XVIII. Portraiture—The Management of the Sitter.
- XIX. Portraiture—The Pose.
- XX. Portraiture—Groups—Proportion.
- XXI. Backgrounds.
- XXII. Accessories.
- XXIII. Some Old Notions Touching Portraiture.
- XXIV. Chiaro-oscuro.
- XXV. Chiaro-oscuro—Detail or Definition.
- XXVI. Chiaro-oscuro—Various Arrangements of Light and Shade.
- XXVII. Chiaro-oscuro—Various Arrangements of Light and Shade (*continued*).
- XXVIII. Chiaro-oscuro—Breadth.
- XXIX. Chiaro-oscuro—Portraiture—The Studio.
- XXX. Chiaro-oscuro—General Considerations.
- XXXI. Conclusion.

No one can study this excellent work without being better able to pose and compose his subjects, and to light them more artistically. Those who are unskilled comparatively, hardly realize how much there is to learn that is of value to them. This book will open their eyes and enlighten them, if they can but see when their eyes are open.

**IT IS THE MOST POPULAR PHOTO. WORK EVER PUBLISHED IN EUROPE.
IT IS THE BOOK WANTED NOW BY THE AMERICAN PHOTOGRAPHER, TO POST
HIM ON THE ART OF PHOTOGRAPHY.**

Cloth, \$1.50; Paper, \$1.00. Illustrated.

WHAT ITS READERS SAY:

"Mr. H. P. Robinson's *Pictorial Effect in Photography* is a gem, the par excellence of all photographic books. Its pages are full to a letter of choice and valuable instruction. If there is one who has not read it I would advise him to do so at once."
—G. F. E. PEARSALL, *Brooklyn, N. Y.*

"*Pictorial Effect* is a success."
—M. H. ALBEE,
Marlboro, Mass.

"I would advise all photographic art students to obtain a copy of Mr. H. P. Robinson's *Pictorial Effect in Photography*, one of the best and most complete works ever published on the subject for the benefit of photographers. Read it over and over. Every page teaches a grand lesson."
—JAMES MULLEN, *Lexington, Kentucky.*

EDWARD L. WILSON, Publisher, 912 & 914 Chestnut St., Philada.

THE PHOTOGRAPHER TO HIS PATRONS

Is a neat little leaflet of twelve pages of the size of the four pages below. It tells your patrons what you want them to see on **Photography as an Art; When to Come; How to Come; How to Dress; How to Behave; and about Children, Business, Frames, Copying, Coloring, and Prices.**

"THERE'S MILLIONS IN IT."

PHOTOGRAPHERS OF AMERICA:

In these times of competition we all want something to *stir up business*. It is believed that no means of advertising, half so good, was ever offered to photographers, as that acceptable little leaflet,

"The Photographer to his Patrons."

Its utility and usefulness are proven by the fact that it has been demanded and translated into Spanish and German; that over

1,000,000 copies have been sold,

and that hundreds of photographers have written to the author, testifying to its great value as a positive *business-bringer*.

I take the liberty of sending you a copy, and ask you, *for your own interest*, to read it carefully all through. I have, since its publication, issued two other works of a similar character—*Pretty Faces*, at half the price; and *Something New*, at the same price. But the choice still seems to be for the old favorite, and I am still supplying it continually. The sample herewith is of a lot lately printed; and I desire to call your especial attention to a method which will secure you all the advantages of this work as an

(i)

the expense of hiring a man and team to distribute them in adjoining towns. I shall, undoubtedly, want more when these are gone. I got \$13.50 for the advertisements."

We endeavor to get them up in attractive and elegant style; and in order to protect those who use them in the enjoyment of them, we have *copyrighted* them, and trust no one will attempt their degradation by cheap and badly-made copies of them. We can print them as cheap as any one can for the quality, and have

RECENTLY REDUCED THE PRICES

to the following scale:

500 copies,	\$9 00
1000 "	15 00
3000 "	36 00
5000 "	50 00

Some photographers have had as many as 25,000, using them continually. Please look into the matter, and send on your orders for all seasons.

We supply, free of charge, several beautiful fancy cuts for the covers; but where three of the pages are covered with other matter, the style of the present sample is the neatest. You can have your own choice.

As already said, these leaflets are used all over the country, often by our leading photographers, from some of whom were received the following testimonials.

(iii)

advertisement, and yet cost you little or nothing. *The four pages of the cover are yours, to use for what you please.* You only need the first page for yourself. Get advertisements from your neighbors, at a proportionate figure, for the rest, and your leaflets cost you only the expense of distribution.

Messrs. Albert & Son, Alexandria, La., have seven advertisers, another recently had eight. From six of them he got \$1.75 each, and from two, \$2.25 each; making \$15—the cost of 1000 leaflets. Examine the copy herewith.

Mr. H. C. Norman, Natchez, Miss., who has adopted the same plan, writes, viz.: "As an advertising medium the leaflets have no equal. Two hours secured me seven advertisements, amounting to \$17.50, leaving me \$5.00 balance for express charges; thus securing me 1000 leaflets for nothing. With a little energy any photographer can secure cards enough from his friends to pay for all the leaflets he requires, and he should not be without them. I have not only seen, but felt, the result of using them."

Mr. L. B. Truax, Swanton, Vt., writes, viz.: "The leaflets have been received and prove a decided benefit to me. I consider them the best advertising medium I have yet found. The merchants who advertised on the covers seem to be of the same opinion; one of whom went to

(ii)

KEEP YOUR EYE ON THIS!



TESTIMONIALS:

"Send 5000 in English and 2000 in German." JNO. A. SCHOLTEN, St. Louis.

"Let me have a lot as soon as printed."—J. F. RYDER, Cleveland, O.

"It works satisfactorily in every way."—A. N. HARDY, Boston. (Mr. Hardy has had 4 or 5 lots.)

"They are the best business-cards a photographer can have."—T. S. ESTABROOKE, N. Y.

EDWARD L. WILSON, *Photo. Publisher,*
912 & 914 Chestnut St., Philada.

(iv)

DEALERS' DIRECTORY.

The following houses are to be recommended as the best for photographers in their localities.

S. T. BLESSING, New Orleans, La.	Douglass, Thompson & Co. "Great Central," Chicago, - - - - Ill.	JAMES H. SMITH, Quincy, Ill.
H. A. HYATT, Mound City Photo. Stock House, 411 North Fourth St., St. Louis, Mo.	D. J. RYAN, Savannah, Ga.	J. C. SOMERVILLE, St. Louis, Mo.
SCOVILL MANF'G CO., 419 & 421 Broome St., New York.	D. TUCKER & CO., Buffalo, N. Y.	BLESSING & BRO., Galveston, Texas.
C. H. CODMAN & CO. Boston, Mass.	WILSON, HOOD & CO., 825 Arch Street, Philadelphia, Pa.	B. FRENCH & CO. Boston, Mass.
WM. J. HAZENSTAB, 406 Market St., St. Louis, Mo.	EDWARD L. WILSON, Photo. Publisher, LANTERN SLIDES, 912 & 914 Chestnut St., Philadelphia.	THEO. SCHUMANN, Atlanta, Ga.
OSCAR FOSS, San Francisco, Cal.	G. B O D E, Milwaukee, Wisconsin.	W. D. GATCHEL, Cincinnati, Ohio.

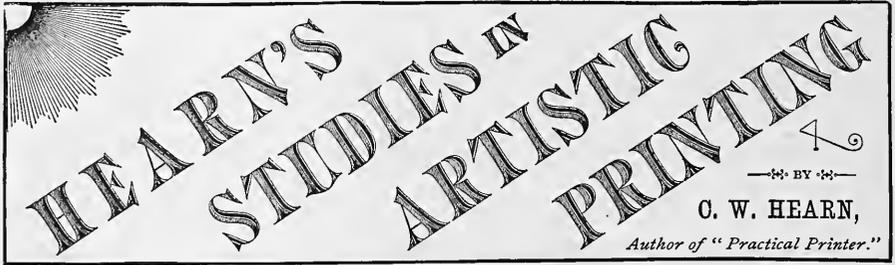
GET THE BEST!

CRAMER & NORDEN'S
ST. LOUIS
EXTRA-RAPID DRY PLATES.

WARRANTED PERFECT,
 With Latest Formulas and Complete Directions for Use.

FOR SALE BY

G. GENNERT, 105 William St., New York, Agent for the Eastern States.	MULLETT BROS., Kansas City, Mo.
DOUGLASS, THOMPSON & CO., Chicago.	H. A. HYATT, St. Louis.
N. C. THAYER & CO., Chicago.	WM. J. HAZENSTAB, St. Louis.
HIRAM J. THOMPSON, Chicago.	JAS. C. SOMERVILLE, St. Louis.
C. J. RICE, Chicago.	H. LIEBER & CO., Indianapolis.
W. D. GATCHEL, Cincinnati.	JAS. H. SMITH, Quincy, Ills.
P. SMITH & CO., Cincinnati and Columbus, O. [ville, Ky.	G. MOSES, New Orleans.
W. D. GATCHEL & CO., Louis-	S. T. BLESSING, New Orleans.
J. V. ESCOTT & SONS, Louisville.	ZIMMERMAN BROS., St. Paul.
	GUSTAVUS BODE, Milwaukee.



SIX FINE CABINET AND PROMENADE PORTRAIT STUDIES.

AMONG OTHER THINGS IT CONTAINS.

Suggestions on the Choice of Albumen Paper—All the Best Silvering Baths, and Methods of treating the same—New Views on the Relation of the Silver Bath to the Time of Floating—The Different Effects Caused by the Time of Floating—How to Tell when Paper is Floated too Long or too Short a Time—Table for Time of Floating Paper under all Circumstances—The Importance of Care in Printing in Varied Ways—The Important Relation Printing from the Negative Bears to the Toning Bath—Fast Printing—Dialogue between "Joe" and a Friend—The Way to Success in Toning Lies in Printing—The Different Effects Caused in Printing by the Preparation of the Silver Bath—The Relation of the Silver Bath to the Printing from the Negative, and from this to the Toning Bath—Acetate of Silver—Success or Failure in Toning Caused by the Strength, Purity, and Alkalinity of the Silver Bath—*Harmony*, its Importance in Photography—Why its Neglect Causes such Disastrous Results—The Beautiful in Toning, and How to Obtain it—A Few Hints About Managing Toning Baths—Formule for Printing "Our Studies," as Given under Respective Headings—Impurities of Toning Baths—How it Affects the Toning, and How to Remedy such Baths—Fixing and Washing—Brilliance of the Finished Picture Attained by the Final Washing—Various and Valuable Hints about Finishing the Photographs, etc., etc.

Mailed to any address on receipt of price, \$3.50, by any stock-dealer, or by

EDWARD L. WILSON, Photo. Publisher, 912 & 914 Chestnut St., Philada.

SOLD BY ALL DEALERS. ASK TO SEE IT.

SINGHI'S VIGNETTING ATTACHMENT FOR PRINTING FRAMES.

To be used with WAYMOUTH'S VIGNETTE PAPERS.

(Patent Applied for.)

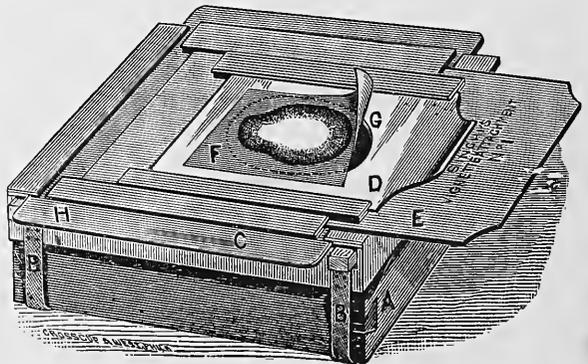
J. F. SINGHI, Inventor.

The best arrangement for adjusting these best of vignetting appliances in the world.

5x8 size now ready.

Price, by mail, \$1.50.

See description in this Magazine, June, 1881, or in *Wilson's Photographics*.



FOR SALE BY ALL DEALERS.

BACKGROUNDS! ACCESSORIES! BACKGROUNDS!

GREAT REDUCTION! SEEING IS BELIEVING!

NOW IF ALL PHOTOGRAPHERS WHO ARE IN WANT OF

BACKGROUNDS AND ACCESSORIES,

Of any kind, will send to us for samples, they will be convinced by seeing that the largest, finest, and cheapest line of **BACKGROUNDS** and **ACCESSORIES** in the United States, can be had of the

EXCELSIOR BACKGROUND COMPANY,
No. 28 Main St., Gouverneur, New York.

We have—The Garden of Ferns, The One Arch Bridge, The Garden, The Sea, The Column, The Wheat Field, The Bower, The Arch, The Landing, The Saw Log, The Stairway, The Abbey, The Castle, The Curtain, The Reception Hall, Italy, Country, Summer, The Oscudo, The Exit, etc., etc., etc.

GROUND MADE TO ORDER from **DESIGNS FURNISHED, A SPECIALTY**

Take a Photograph of your Home Scenery and send it to us.

PUBLIC ATTENTION is kindly called in regard to Mounting Grounds, our work is adapted for the roller or frame, being painted with a composition of Talc used by no other background painters in the United States, and warranted not to brush off, peel, or crack in the working of them. Our Grounds have the smooth finish that only our Talc composition can produce, with a softness and mellowness of tone unapproached by any other process.

REMEMBER, for the largest and best assortment, send to us.

REMEMBER, for the best designs at the lowest prices, send to us.

REMEMBER, all work made and sold by us will be guaranteed.

REMEMBER, we offer no goods for sale that will not give satisfaction.

REMEMBER, our prices are lower than any other producer in our line.

DON'T FORGET US, WE ARE IN THE MARKET TO STAY.

A. MEYEUR, Manager.
R. L. COX, Secretary.

Excelsior Background Co., Gouverneur, N. Y.

NEW DRESDEN
 EXTRA  BRILLIANT
 ALBUMEN PAPER
 WHITE, PINK, PENSE.

FREE from BLISTERS and IMPERFECTIONS.

TESTIMONIALS.

MILWAUKEE, October 11th, 1881.

G. GENNERT, Esq.,
 New York.

DEAR SIR: The paper works lovely, and is a
 Godsend to the photographers.

Very truly, HARRY SUTTER.

MR. G. GENNERT.

DEAR SIR: One ream Extra Brilliant Eagle
 pink received and tried; my printers say it is the
 best they have had for years; it keeps perfectly
 white, which is one of the greatest features for us
 in St. Louis. It prints and tones fine. I am
 satisfied with the beautiful prints I've received for
 the past week, which is something, you know, I
 am hard to be pleased with. Keep it up, and
 send another ream immediately.

Yours truly, J. A. SCHOLTEN.

MILWAUKEE, October 3d, 1881.

G. GENNERT,
 105 William St., New York.

DEAR SIR: I wish to express my appreciation
 of the Eagle Brand Albumen Paper. I am
 highly pleased with it, it being the best I ever
 used, and for purity of tone and clearness in the
 high-lights and shadows it cannot be excelled.

HARRY SUTTER.

G. GENNERT, Esq.

DEAR SIR: I have received the 10Ko and
 8Ko Eagle light pink albumen paper which you
 sent me a few weeks ago, and now I have care-
 fully tried it, I can but say it is by far the best
 paper we have worked for a long time. Hoping
 the quality will remain the same for all time to
 come, I shall not want to use another brand.

Yours truly, H. ROCHER.

IMPORTED BY

G. GENNERT,
 105 WILLIAM ST., NEW YORK.

FOR SALE BY ALL DEALERS.

1882.

Photographers'
 Booksellers,
 Stationers,
 and
 Newsdealers
 Publishers of
 Hints on Burnishing
 Photographs,
 AND THE
 Photographers' Monthly
 Bureau of Information



1882.

We are
MERCHANTS
 in
ALL REQUISITES
PERTAINING
 to the
ART-SCIENCE
 of
PHOTOGRAPHY.

Douglass, Thompson & Co.

Nos. 229 & 231 State Street,

GAYTON A. DOUGLASS.
 HENRY G. THOMPSON.

CHICAGO.

GELATINE BROMIDE DRY PLATE.

Beebe's, Cramer & Norden's, Eastman's, Carbutt's.

Outfits, and everything used in Dry Plate work.



We invite cash trade, believing it for the best interests of all parties to adopt the pay as you go system.

With us, cash with order, or on C. O. D. purchases, insures a discount of **5 PER CENT**, deducted from bill, in addition to the very low prices we offer.

A practical knowledge of the Art-Science of Photography gives us a special advantage in meeting all demands.

Our Warerooms are commodious, located conveniently for business, our stock ample for all usual demands, fresh, carefully selected, and we can sell at prices satisfactory to the consumer. We deal in nothing but supplies for Photography, devoting our whole time and energies to the wants of our patrons, thus offering a special advantage to such who appreciate care and attention. We study promptness in meeting all favors entrusted to us, and guarantee exactness.



A NEW TREATMENT

For Consumption, Asthma, Bronchitis, Catarrh, Dyspepsia, Headache, Debility, Neuralgia, Rheumatism, and all Chronic and Nervous Disorders.

ADMINISTERED BY INHALATION.

ACTS DIRECTLY upon the great nervous and organic centres, and *cures by a natural process of revitalization.*

HAS EFFECTED REMARKABLE CURES, which are attracting wide attention.

HAS BEEN USED BY Rt. Rev. John J. Keane, Bishop of Richmond, Va., Hon. Wm. D. Kelley, T. S. Arthur, and others, who have been largely benefited, and to whom we refer *by permission.*

IS STRONGLY ENDORSED: "We have the most unequivocal testimony to its curative power from many persons of high character and intelligence."—*Lutheran Observer.* "The cures which have been obtained by this new treatment seem more like miracles than cases of natural healing."—*Arthur's Home Magazine.* "There is no doubt as to the genuineness and positive results of this treatment."—*Boston Journal of Commerce.*

THE OXYGEN HOME TREATMENT contains two months' supply, with inhaling apparatus and full directions for use.

SENT FREE: a Treatise on Compound Oxygen, giving the history of this new discovery and a large record of most remarkable cures. Write for it. Address

DRS. STARKEY & PALEN, 1109 and 1111 Girard St., Philadelphia, Pa.

DEPOSITORY ON PACIFIC COAST.

WE HAVE ESTABLISHED A DEPOSITORY OF OUR COMPOUND OXYGEN HOME TREATMENT at San Francisco, Cal. This will enable patients on the Pacific Coast to obtain it without the heavy express charges which accrue on packages sent from Eastern States.

All orders directed to H. E. MATHEWS, 606 Montgomery Street, San Francisco, Cal., will be filled on the same terms on which we fill orders sent directly to our office in Philadelphia.

Patients ordering from our depository in San Francisco should, at the same time, write to us, and give a statement of their case, in order that we may send such advice and direction in the use of the Treatment as their special disease may seem to require.

ALSO SENT FREE

"**HEALTH AND LIFE,**" a quarterly journal of cases and cures under the Compound Oxygen Treatment. Nos. 1 and 2 now ready. Address

DRS. STARKEY & PALEN,

Nos. 1109 and 1111 Girard Street, Philadelphia, Pa.

FREE LUNCH!

WE WILL SEND YOU A SAMPLE OF OUR
UNION NEGATIVE COTTON,
 FREE OF CHARGE,

So that you may try it and be convinced of
ITS SUPERIOR QUALITY.

IF YOU NEVER HAD WASTE REFINED BY US
 GIVE US A TRIAL AND COMPARE RESULTS
Circulars How To Save Waste, free on application.

CHAS. COOPER & CO.,
 194 Worth St., New York.

PHOTOGRAPHIC COLORISTS' GUIDE THE

\$1.50

AT



By the late JOHN L. GIBON

➤ PHOTOGRAPHIC COLORING. ◀

The growing demand for a fresh work on *Photographic Coloring*, one that contains full instructions on all the new and improved methods—for like photography itself, photo. coloring has improved and progressed—has led to the publication of the above.

ITS CONTENTS ARE:

PREFACE.

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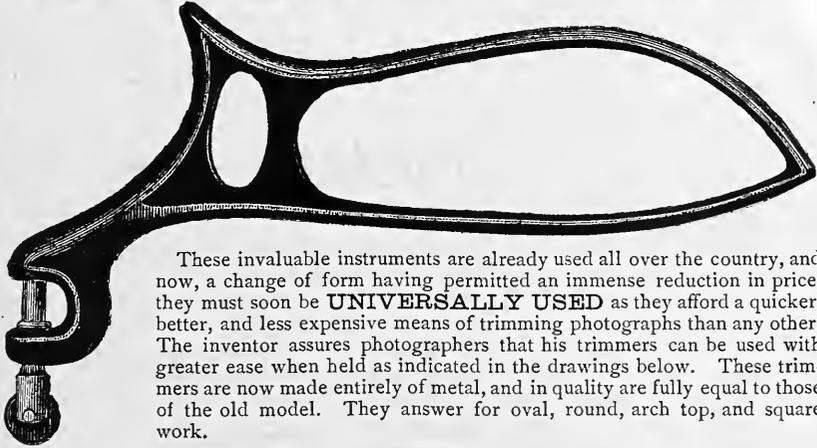
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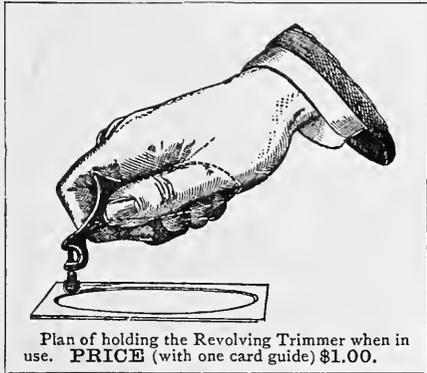
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CONTENTS.

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 Can Such Things Be. E. M. Estabrooke.
 Negative Retouching. Barthold Meyer.
 California Photographs. J. Pitcher Spooner.
 Some Things Worth Knowing. E. D. Ormsby.
 Hints from my Practice. Jno. F. Singhi.
 How to Make Paper Pliable. J. S. Young.
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 Old Conundrums Quite Threadbare but Warranted like Iron to Wear. M. L. Daggett.
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 The Class of Men who have Chosen Art as a Profession. R. M. Wilson.
 Please Be More Explicit, Etc. Inquirer.
 The Humorous Side. H. S. Keller.
 Lessons of the Convention. M. H. Albee.
 Some Causes of Failure in Working Gelatin Plates. C. A. Word to Printers. H. A. Webb. [F. Richardson].
 A Dodge or Two. W. B. Glines.
 Art Makes the Artist. W. H. Allen.
 How to Build a Portable Gallery. Jos. Theiring.
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 Profitable Use of Gelatin Plates. Frank Robbins.
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Tent Photography. H. S. J.
 Scratches from my Scrap-Book. F. C. Phillips.
 Dry-Plate Work. Garvey Donaldson.
 Collodion and How to Mix It. C. S. Roshon.
 Amateurs, or the First Step on the Ladder. J. H. Reuvers.
 A Few "Photographies." Old Argentum.
 Young Men and Education. Edward L. Wilson.
 Photo-Engraving Hints. A. W. Ott.
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 Why Not? O. Pierre Havens.
 What I Gathered at the Convention. J. Müller.
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SUMMARY OF CONTENTS.

	PAGE		PAGE
Echoes from the Orient. By EDWARD L. WILSON,	193	Proceedings of Societies,	211
Hyposulphite. By J. E. BEEBE,	198	The Annual Excursion of the Photographic Society of Philadelphia. By JOHN C. BROWNE,	213
Photographic Experiences in the East. By WILLIAM H. RAU,	198	Pertaining to the P. A. of A.,	216
Alphonse Poitevin and his Photographic Discoveries,	202	Stick Together. By EDWARD L. WILSON,	218
Ferrous-Oxalate Developer for Gelatine Plates. By JOHN CARBUTT,	206	Our Picture,	220
Stripping the Negative Film,	207	German Correspondence. By H. W. VOGEL,	220
Examine your Cameras. By DAVID ROBERTSON,	210	French Correspondence. By LEON VIDAL,	222
		Editor's Table,	224

EMBELLISHMENT.—Portrait Studies. Negatives by MR. J. H. LAMSON.
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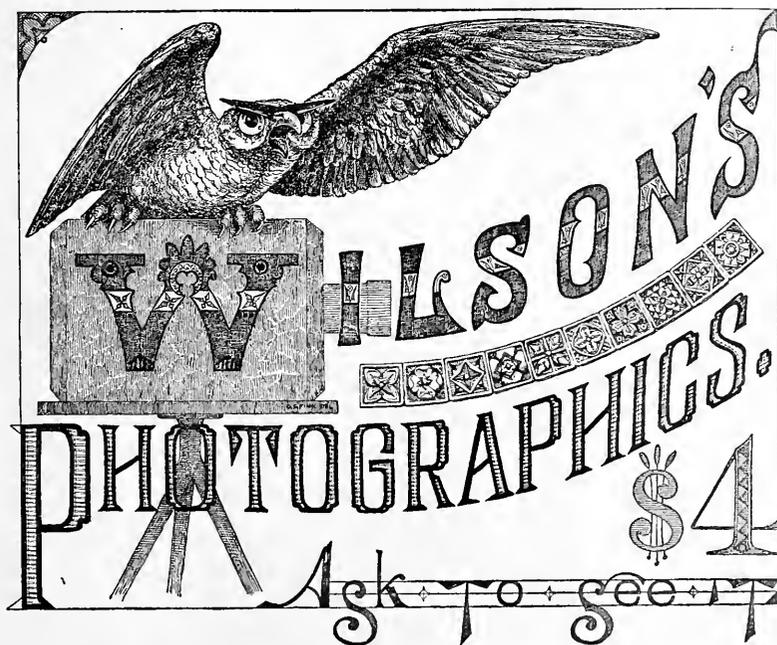
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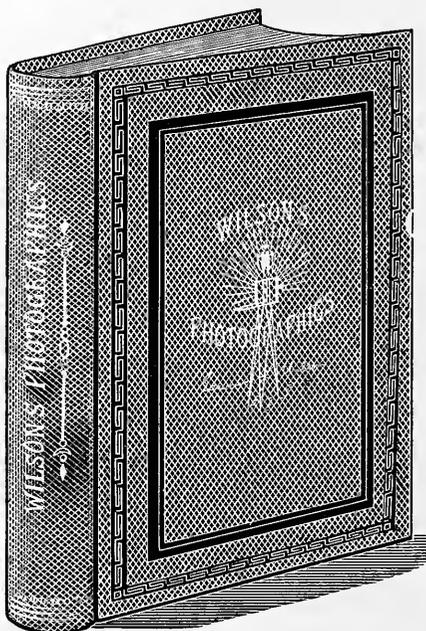
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 Acidifying the Prints.
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 Loss of, from the Paper.
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 Alkaline Sulphides, Test for.
 Alum, Treatment of the Prints with.
 Angle of View possible with a Lens.
 Angular Composition.
 Aniline Blue for Pure Whites in Prints.
 Apparatus, Dry-Plate for Landscapes.
 Arrangement of Drapery, Raphael's.
 Art among Photographers, and Art Rules.
 Principles applied to Photog.
 Artificial Light for Solar Print-
 "Artotypes." [ing.
 Atmospheric Effect.
 Backgrounds.
 Frames for.
 How to Make and Paint.
 Bath, Boiling down the.
 Decolorizing the Printing.
 Fusing the.
 Rectifying the.
 Removing Albumen from the.
 Testing the Strength of the.
 The Fixing.
 The Nitrate.
 Troubles.
 Black and White Negatives.
 Blistering of Prints.
 Blueness of the Film.
 Bold Prints from Flat Negatives.
 Breadth of Effect.
 Brilliancy in a Photograph.
 Bromo-Gelatin Emulsion Work.
 Alkaline Developer for.
 Calculations, Table for.
 Carbutt's Cruet for.
 Chemicals for.
 Development of.
 Drying the Plates.
 Exposure of.
 Fogging of.
 Fringing of.
 Intensifying.
 Printing.
 Rapidity of.
 Reducing.
 Retouching and Varnishing.
 Spreading the Gelatin.
 Strengthening.
 Washing.
 Burnishing the Prints.
 Camera, Care of the.
 How to tell a good.



Card-Board, Cockling of the.
 Cheapness.
 Chemicals and Solutions, The.
 Chemistry of Out-Door Formulæ.
 Chiaro-Oscuro, or Light and Shade.
 Chloride of Gold, Saving.
 of Silver, into a Metallic State.
 Clouds and Sky, The.
 in Out-Door Views.
 Printing in.
 Collodion Bromized.
 Changes.
 Double Iodized.
 for Hot Weather.
 for Interiors.
 Intense.
 Out-Door, Water In.
 Troubles.
 Collodion Transfers.
 Coloring.
 Gelatin Paper for.
 Iodizers for.
 Printing.
 Collodionizing the Plate.
 Color, Good, Printing for Negatives.
 Composition, Angular.
 Circular.
 Pyramidal.
 Concluding Confab.
 Contraction and Expansion of
 Paper.

Contrasts, Violent.
 Correctness and Comparison.
 Curtains for the Studio.
 Dark-Room, The.
 Dark-Tent, The.
 Defective Toning of Prints.
 Defects and Dryness of Albumen Paper.
 Dense Negatives, Printing.
 Developer, The Iron.
 The Iron and Ammonia.
 Development, The.
 Best Rule for the.
 Diaphragm.
 Use of the. [Printing.
 "Doctoring" Negatives for
 Drapery, Raphael's arrangement
 of.
 Drying-Box for Phototype
 Plates.
 Cupboard for Emulsion
 Plates. [Plates.
 Cupboard for Phototype
 Oven for Phototype Plates.
 Room, The.
 the Paper.
 the Prints.
 Vogel's Collodion Emulsion.
 Education of Photographers.
 Effect, Breadth of.
 Effects, Brilliant.
 of Light.
 Encaustic Paste for Prints.
 Enlargements and Lantern Slides.
 Enlarging Carte-de-Visite Negatives.
 Exposure for Phototype Plates.
 for Platinotypes.
 of Bromo-Gelatin Plates.
 Shortening.
 Time of.
 Eye, Education of the.
 of the Sitter.
 Faces, The Study of.
 Fading of Prints.
 Ferrrous-Oxalate Developer, The.
 Field Work.
 Figures in.
 Foreground Study in.
 Film, Blueness of the.
 Weakness of the.
 Filtering Albumen for Phototypes.
 Gelatin for Phototypes.
 Finishing and Mounting.
 Fixing.
 Flat Negatives, Printing.
 Flatness and Want of Contrast.
 Fogging.
 Formation of Network on the Film.
 Fumes, Poisonous.
 Fuming the Paper.
 Fusing the Bath.
 Glace Prints.
 Glass, Preparation of the.
 Studio, The.

Gold Toning-Bath, Treatment of the.
 Gun-Cotton, The.
 Hands, The.
 Stains on the.
 Harmony.
 Horizontal Lines.
 Husnik's Process for Phototypes.
 Intensifier, The.
 Ammonia and Mercury.
 Bichloride of Mercury.
 Ferrid Cyanide.
 Iron and Acid.
 Perchloride of Iron.
 Permanganate of Potash.
 Pyrogallic Acid.
 Schlippe's Salts.
 Silver and Acid.
 Interior Work.
 Kaolin, Rectifying Printing-Bath with.
 Landscape Apparatus.
 Photography.
 Views, Formula for.
 Lantern Slides and Enlargements.
 Leaking of the Glass Studio.
 Lens or Objective, The.
 Lenses, Angle of View Possible with.
 Choice of.
 Forms of.
 Light and Accessories.
 and Shade, or Chiaro-oscuro.
 Reflected.
 Lighting, Rembrandt's Style of.
 "Lightning" Processes.
 Linen, Printing on.
 Lubricating the Prints.
 Managing the Model.
 Manipulations, The.
 Manipulatory Miseries.
 Marbled Appearance of the Paper.
 Red Lines on Prints.
 Meakiness in Prints.
 Measles or Mottles on Prints.
 Measuring Metrical.
 Medallion Printing.
 "Megatypes."
 Metallic Spots in Prints.
 Model, Study the.
 Mounting and Finishing.
 Paste.
 without Cockling.
 Nature, Study.
 Negative, A Generally Wretched.
 Negatives, Black and White.
 Defects in.
 "Doctoring" for Printing.
 for Solar Printing.
 Preserving of.
 Printing Dense.
 Printing Weak.
 Removing Stains from.
 Network, Formation on the Film of.
 Objective or Lens, The.
 Objects, Distances of.
 Only Lines in Negatives.
 Opaque for Negatives, Gihon's.
 Outside Photography.
 Chemistry of.
 Work, Art Principles in.
 Work, Clouds in.
 Work, Exposure.
 Work, Keeping Plates for.
 Work, Tent for.
 Over-Exposure of Bromo-Gelatin Plates.
 Paper, Cockling of the.
 Drying the.
 Expansion and Contraction of.

Fuming the.
 Keeping White the.
 Marbled Appearance of the.
 Sensitizing the.
 Woolliness of the.
 Paste for Mounting.
 Patches and Stains on Prints, Yellow.
 Perplexities, Printing.
 Perspective.
 Photography, Landscape.
 Phototypes, Basis for.
 Exposure of the Negatives for.
 Husnik's Substratum for the Plates for.
 Inking the Films for Printing.
 Pinholes.
 Plain Paper, Printing on.
 Platinotypes, Sensitizing the Paper for.
 Cleaning and Washing.
 Development of.
 Exposure of the Paper.
 Poisons.
 Porcelain, Printing on.
 Posing, Suggestions about.
 Preserving Negatives.
 Printing, Art in.
 by the Solar Camera.
 Dense Negatives.
 Development Process of.
 Flat Negatives.
 Medallions.
 on Albumen Paper.
 on Various Surfaces.
 Stereoscopic Views.
 Temperature in.
 Vignettes.
 Weak Negatives.
 Printing-Bath, The.
 Decolorizing the.
 Strengthening the.
 Printing-Room, The.
 Prints, Acidifying the.
 Blistering of the.
 Burnishing the.
 Defectively Toned.
 Drying the.
 Encaustic Paste for.
 Fading of the.
 Fixing.
 Glace.
 Imperfect Washing of the.
 Lubricating.
 Measled or Mottled.
 Metallic Spots in.
 Refuse to Tone.
 "Spotting" the.
 Touching Out.
 Treatment with Alum of the.
 Trimming.
 Warm-Water Washing of.
 Washing in "Lead Water."
 Washing the.
 With Red Marbled Lines.
 Yellowness of the.
 Productions of Photography, The.
 Public, Relation of the Photographer to the.
 Pure Whites in Prints.
 Quick-Acting Processes.
 Red Patches on Prints.
 Reducing Process for Solar Negatives.
 Reinforcing the Negatives.
 Rembrandt's Style of Lighting.
 Removing Stains from Negatives.
 Retouching Bromo-Gelatin Plates.
 Process, Solar Negative.
 the Negatives.

Reversing the Negative, Apparatus.
 Robinson's Print Trimmer. [for Screens and Curtains.
 Sensitizing Paper for Platinotypes.
 the Paper.
 the Plate.
 Shortening the Exposure.
 Silver Iodide, to make.
 Saving, Method of.
 Solutions, Volumetric Test of.
 Sky and Clouds, The.
 Softness in Lighting.
 Solar Camera Printing.
 By Artificial Light.
 Camera Printing Negatives, retouching.
 Negative Reducing Process.
 Retouching Process.
 Stains from Negatives, Removing.
 on the Hands.
 Stereoscopic Views, Printing.
 Negatives Preparing.
 "Stop," Use of the.
 Streaks and Stains in Negatives.
 Strengthening Gelatin Emulsion Plates.
 the Printing-Bath.
 Studio, the Glass.
 Construction of the.
 Curtains.
 How to Build a.
 Leaking* of the Glass.
 with Curved Light.
 Working Plans for Construction.
 Subject, Choice of.
 Treatment of.
 Table for Converting Centigrade into Fahrenheit.
 for Converting Cubic Centimetres into Ounces, etc.
 for Converting Metrical to Troy Millimetres into Inches, etc.
 Temperature in Printing.
 Tent, The Dark.
 Testing of Silver Solutions.
 Toning the Prints.
 Bath, Treatment of the Gold.
 Defective.
 Solutions.
 Touching out Prints.
 Transfers, Collodion, Iodizers for.
 Coloring.
 Developer for.
 Fixing.
 Gelatin Paper for.
 Printing.
 Transparencies, Bromo-Gelatin.
 for the Magic Lantern, To make.
 Treatment of the Subject.
 Use of the Diaphragm.
 Varnishes and Varnishing.
 Ventilation of the Dark-Room.
 Views of Interiors.
 Collodion for.
 Exposure for.
 Figures in.
 Light for.
 Selection of.
 Vignette Printing.
 Paper, Waymoath's.
 Printing Attachment, Singh's.
 Vogel's Collodion Emulsion.
 Warm Water for Washing Prints.
 Wash-Room for the Prints.
 Wastes and their Worth.
 Waymouth's Vignette Papers, Use of.
 Weakness of the Film.
 Woolliness of the Paper Surface.
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Cameras in Outfits 202 and 203 have shifting fronts, and are equal in style and finish to the best of the American Optical Co.'s make.

OUR NEW PATENTED DRY-PLATE HOLDERS

are the best made, and answer the demand in dry-plate work for something that will exclude all light. Prices of *EXTRA Patent Double Dry-Plate Holders* are as follows:

4 x 4 Holders, for two Plates,	. . . .	each, \$3.00
4 x 5 " " " "	. . . .	" 3.00
5 x 8 " " " "	. . . .	" 4.00

For a choice of Lenses suitable to these Outfits, see next page.

MORRISON'S Wide-Angle View Lenses.

PATENTED MAY 21st, 1872.

These Lenses are absolutely rectilinear; they embrace an angle of fully 100 degrees, and are the most rapid *wide-angle* lenses made. We recommend them for use with the foregoing outfits.

Price of Morrison's Wide-Angle Lenses.

No. 1, $\frac{3}{4}$ Diam. of Lens,	4 x 4 in. Plates,	3 in. Equiv. focus.	Price each,	\$25.00
No. 2, 1 " " "	4 x 5 " " "	$3\frac{1}{2}$ " " "	" " "	25.00
No. 3, 1 " " "	$4\frac{1}{2}$ x $7\frac{1}{2}$ " " "	$4\frac{1}{4}$ " " "	" " "	25.00
No. 4, 1 " " "	5 x 8 " " "	$5\frac{1}{4}$ " " "	" " "	25.00

MORRISON'S Rapid Stereoscopic Lenses, FOR INSTANTANEOUS VIEWS OR LAWN GROUPS.

They are entirely different, in many particulars, from any other lenses in the market. They are 6 inch focus and $1\frac{1}{4}$ inches in diameter, and are, of course, made in matched pairs, with a set of diaphragms also for 5 x 8 views.

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" P E E R L E S S " Quick-Acting Stereoscopic Lenses

FOR PORTRAITURE OR VIEWS.

We can also furnish the following, either single or in pairs:

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They are particularly adapted for instantaneous work.

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They are supplied with six Waterhouse Diaphragms in morocco case.

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Imitation Dallmeyer Lenses

FOR LANDSCAPES.

PRICE, PER PAIR, \$17.00.

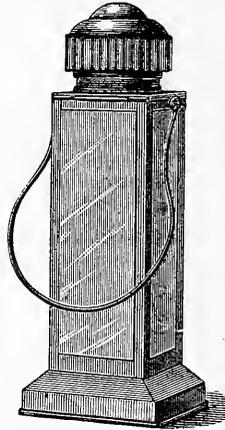
Undoubtedly the best Photo. Lenses yet produced. Amateurs will find these Lenses perfectly adapted to their use.

[See next page.]

THE SCOVILL DRY-PLATE LANTERN

PRICE, \$1.50 EACH.

Designed especially for use by the photographer or amateur in the dark-room, when developing plates and putting them in the plate holders. Guaranteed, when lighted and closed up, to throw out nothing but ruby rays. It has sixty-three square inches of glass, through which enough light shines to enable the occupant of the dark-room to watch the development of the largest size dry-plates made, and at the same time to see the chemicals and everything used in manipulation. The illustration here presented conveys a good idea of the lantern when closed.



In height the Scovill Lantern is a trifle over twelve inches, and is four and a half inches square. Each corner is protected by a strip of metal, which acts as a double safeguard. It not only prevents white light from the inside stealing out there, but it also keeps the four panes of ruby glass from any ordinary risk of breakage. For the latter reason the Scovill Dry-Plate Lantern is a great improvement over lamps with ruby chimneys, which, being unguarded, are so easily cracked or broken, and such a trouble to replace. In point of safety this lantern is infinitely to be preferred to a lamp of any style. By patented devices the top vent and the lower draft holes are so constructed that no white rays can escape through them, and thus the lantern is perfected for use in the dark-room.

SOME POINTS ABOUT THE NEW LANTERN.

It is readily extinguished.
It utilizes the entire wick.
It is not liable to crack the glasses.
It requires less than ordinary care to keep clean.
It is simple and easily understood.
It is not liable to get out of order.
It wants no skill, care, or attention in use.

It requires only to be kept in oil.
It gives at all times a symmetrical flame of maximum size.
It maintains a full and brilliant flame as long as the oil lasts.
It is easy to wick.
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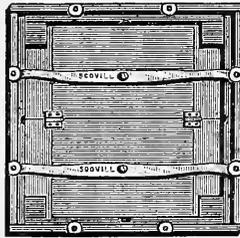
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December 1, 1881.

ATWOOD'S PATENT REVERSIBLE

PRINTING



FRAME.

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Suppose the negative of a standing figure to have been placed in the Atwood Frame and the back put in with the springs parallel to the length of the subject. Either half of the backboard can be opened and thrown over on the other, in this manner allowing such an examination of the print as to show a view from the head to the foot.

Again, in printing from a group negative the back of the Atwood Frame can be placed to open crosswise of the negative, thus giving an opportunity when examining the print of seeing all the faces.

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There is no reason why prints from two 5 x 8 negatives of different subjects may not be made at one time in an 8 x 10 Atwood Frame. Other good uses will be apparent, and we need not enumerate them. The back can be made to open two-thirds instead of at the centre where so desired and ordered.

PRICE LIST

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" 8x10 " " 	1 20
" 10x12 " " 	1 60
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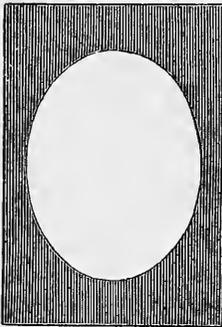
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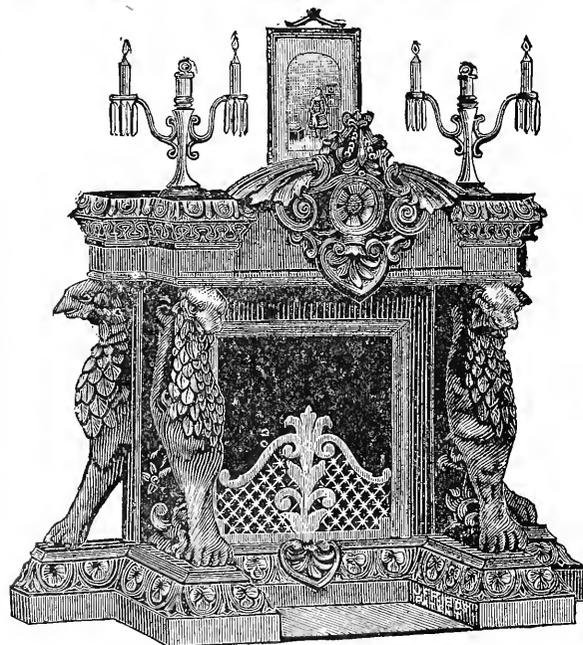
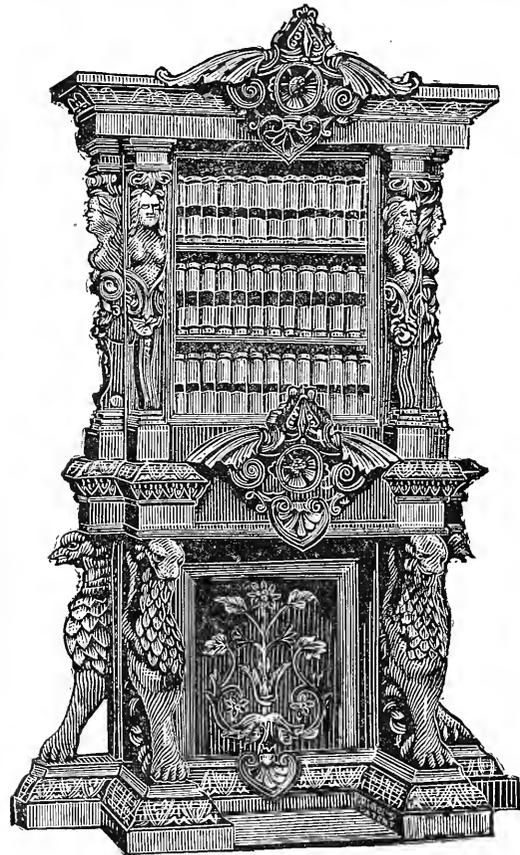
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T H E

Philadelphia Photographer.

EDITED BY EDWARD L. WILSON.

Vol. XIX.

JULY, 1882.

No. 223.

ECHOES FROM THE ORIENT.

ASSOUAN, the termination of the "Lower Nile" journey, is but a few hours from Luxor. We should go right by it, for it has little attractiveness, and not even halt at the Elephantine Island, opposite, were it not that, beginning just above and extending about six miles further on, there is a bit of obstruction in the Nile known as the "First Cataract." So we land at Assouan, jump upon the donkeys or camels awaiting us, and trot through the desert to the shore opposite the Island of Philæ, where another steamer awaits us. This bit of desert travel is most enjoyable, since the dreary sand waste is broken into by huge rock-piles whose picturesque outlines are very attractive. Among them lies the great quarry of Syene, whence the various world-renowned obelisks have been taken, and where one still lies partly quarried from the red granite and mostly covered by the sand. An old sand-submerged temple is also passed, and a vast burying ground where are some English and American graves. Sadder than the sea is sand for a resting-place, for water is clean, and it covers the cold dust of humanity, while here the fickle sand flirts continually with one's bones, and even piles of syenite upon them do not keep them always covered. Some of the Moslem tombs are very queer.

Philæ, you know, is the gem of the Nile. It is indeed a pretty place, and all about it

the natural scenery is most attractive. As we approached it from the desert, we could first see the "Pharaoh's bed," a pretty little temple with columns all around, lifting its lofty capitals above the palm-groves, and now reflected in the water. It seemed like a romance. As we came up, as though to greet us, a flock of storks rose from their nests in the ruins, and with their long necks to the fore and their superfluous legs aft, flew towards the sun, careening to and fro like a hurrying cloud. One moment they threw a shadow dark and solid over against the temple. The next, they turned them to the light, and their sides looked like a sheet of shimmering silver. They repeated this grand display of light and shade, and our unhappy art-critic said that "for geniality of conglomeration and width of consanguinity" he had "never observed anything so stupendously magnificent and celestial." It was indeed a pretty sight.

At Philæ, three most enjoyable days slipped by like dreams. It is assuredly the spot about which more beauty clusters than any other in Egypt. Here the bend of the river, just above the cataract, whose roar is ever present, forms a quiet lake surrounded on all sides by fantastic cliffs of shining red granite. In old times it was called "Aboulakh—the city of the frontier." Here stands the great temple of Isis, and here Osiris, her lamented husband was buried.

Here the priests, from three hundred and sixty golden vessels, each day poured out as many libations of milk in honor of their dead god, a token of their grief for his sufferings. None but they were allowed to get their feet upon the island, and their religion and the stone-walls confined them there during their long natural lives. The size and style of their glorious temple proves their wealth and good taste. Great colonnades, richly cut pylons, lofty propylons, decorated chambers highly colored, costly sub-temples, and highly sculptured walls, slender obelisks and irregular construction are the attractions of this island, almost covered with ruins. The capitals of its columns are varied by the full-blown papyrus flower of several sizes, its half-opened buds, its closed buds, its leaves, and by palm branches. Many of these are highly colored, as are the ceilings, too, and some of the columns show that they have been made up of parts of an older temple, for here and there their inward sculptured surfaces can be seen. On the right and left of the great court-yard are the cells where the various grades of priests lived, and here they worshipped their trinity—Isis, Osiris, and their son Horus. Here, too, each year, they threw their golden offering into the river in order to persuade it to give its annual overflow of blessings. Now, only the smiles of Queen Arsinoë, whose hundreds of portraits line the walls, are given in exchange for the Nile deposit, and the product of the soil is limited to a degree. Opposite Philæ is the rocky island of Biggeh, which is a lovely spot from whence to see Philæ, and serves as a home for the wretched Nubians (for now we are in Nubia), who float across the river on logs for the purpose of performing the only religious act of their lives—namely: taking up a collection, at every opportunity, of *backsheesh* (only here they call it *bock-sheesh*, instead of *back-sheesh*).

The cataract was visited, of course, but there is little there at this season but piles of rocks and descending water to interest one, except the golden desert beyond. Once more upon the steamer, we leave Philæ for the second cataract. The journey and return occupies about ten days, and in-

cludes short stops to see the temples of Dabòd, Gertassee, Kalabsheh, Dendoor, Kirscheh, Dakkeh, Maharraka, Wády Saboah, A'mada, Derr, Ibream, and Ipsamboul. We also make a stoppage at Korosko, where we clambered to the summit of the peak called "Awesel-guarany," which is held as a holy mount by the natives, and is believed to be the tomb of the saint after which the rugged mountain is named. The view is splendid. On one side is the Nile valley, up and down, and on the other the great desolate Wady, and the caravan road to Khartoom, along which may be seen the long lines of camels coming laden with the gums and spices of the South to the market at Korosko.

The temples named, except the last, are very insignificant compared with those below, and with one or two exceptions are in a bad shape for examination, being imbedded in the sand. It is the thing to see them, however, and the natives (Nubians) give us less of their attention than the Arabs do, and they cost less of piastres to see, because nearly all of them are near the river, while those below, on account of the lower country, were built farther back to escape the inundations. The great incentives to go beyond the first cataract are, of course, the great and wonderful temples at Ipsamboul. These are so very different from those in lower Egypt, that one would be hard to convince that they were designed and built by the same nation, were it not that they so plainly evidence their Egyptian origin by their immensity and their glorious conception.

To construct the ones we have already seen, the architects were compelled to quarry their material and shape it, and then lift it into place and form, by means which are unknown to us. But at Ipsamboul it was not so. The great Rameses and the staff of architects whom he had gathered about him, in sailing up the Nile upon one of the tremendous ships of that day, seeking a site for the temple, came within sight of a great mountain whose rocky face confronted them, and commanding their thousand or more oarsmen to cease their labors, discussed the possibility of securing material there for the erection of the temple contemplated,

perhaps on the opposite shore at *Ferayg*, where there is indeed a fine small temple excavated in the rock. And *Rameses II.* spoke: "How say you, *Erectheus*? Is the material good, and on our royal barges may we take it where we will?"

Erectheus: "Yea, my beloved King, as thou wilt."

Cadmus: "But, sun of my life, the stone here is not the chalk we are accustomed to in the lower country. It is gritty sandstone, and will not bear the handling of the other."

Rameses: "There is sense in your suggestion. What think you, *Danaus*, of our project?"

Danaus: "I have but to hear my master's will and I do it, be it what it may."

Rameses: "I have the best idea yet. The temple we have in mind already lies hidden by the gods in yonder mountain. You have but to remove the waste material, and your work is done. See to it, however, that the deities *Ra* and *Isis* and *Phtah*, and *I*, are all represented in becoming size on the facade as guardians—two on each side the pylon. And mark you: That no god may have choice of position with the king, let the likeness and the form of them all be mine. *Osiris* must man the right columns which support the roof, and our godly quartette must be seated in the sanctuary, side by side."

And the work was done. Thus I have guessed—for that is allowable here—at the manner of the birth of this glorious structure, and so it seemed to me.

The first I saw of it was from the deck of the steamer, as we approached it. One of the colossal heads peered above the golden glacier of sand, and the next moment I saw all that *can* be seen of the glorious facade, which measures about one hundred feet in height, and in width about the same. I was the first one ashore, and in two minutes stood face to face with the great *Rameses* in stone. "Face to face," did I say? Well, no—not within fifty feet of it—yet where I could look up into the face, or the likeness thereof, of him whose daughter saved *Moses* from the crocodiles, and whose son so rashly chased that same *Moses* across the Red Sea. There, sitting on their thrones were the four

Colossi, whose life-like expression fairly startled me. I have never seen anything so living in stone since I saw the swelling of the nostrils of the *Apollo Belvidere* in the Vatican. I clambered up the sand to the side of the farther statue, where I could get a clean-cut profile of the one in the best state of preservation—the southernmost one. Until then, I was somewhat disappointed at their size. Now, a full comprehension of them fairly leaped upon me, and overpowered me. I saw the eyes twinkle—I watched the dimples in the cheeks move—I saw one replace his lips as he had held them fixed these thousands of years, after he had let go an incautious smile at my wonderment (which he could fairly see with the almond-shaped eye at the side of his brow), and then I clambered up to the top of the mountain, to see the sun set, and to think. When I came down, the full moon was beginning to show itself in the east. How many years and thousands of years the great kings had witnessed such scenes, with glorious sunrises, appearances of the planets, and from their right eyes the "Southern Cross," each morning early. Always the same bland, and fascinating, and peaceful expression has been kept—almost benign—and not a finger raised against anything. And how *could* such fingers be raised? Try and remember their size, until I have given you the proper dimensions of each statue, as verified only a few days ago by a young Philadelphian, who had the enterprise and muscle to climb for his "figgers"—*Senator Lewis Emery, Jr.*

	Fect.	In.
Height of crown,	14	
Top of head to front of chin,	10	6
Length of ears,	3	5
Width of shoulders,	22	2
Width of chest,	16	6
Top of shoulders to elbow-joint, outside,	14	8
Forearm, inside, to end of second finger,	15	
Length of nose,	3	6
Length of beard (they wore short beards then),	5	6
Diameter of the arm, below the shoulder,	5	
Length of the hands,	7	6
Largest finger in length,	3	8

	Feet.	In.
Hip to front knee,	26	6
Width of hips,	17	4
Top of the knee to the sole of the foot,	22	
Diameter of the calf of the leg, . . .	6	6
Length of one Rameses' foot,	13	6
Width of " " " "	5	8
Length of the big toe,	2	10
Width of large toe,	1	8

And, verifying the rest, I add my own discovery, that the distance from the outer surface of one nostril to the other surface is 25 inches—just sixteen times wider than that of an arab mute's nose, which I measured without being asked for *backsheesh*. My handkerchief (I use ladies' size) would neither cover nor "blow" this delicate proboscis. And there are *four* of these noses, perpetually pointing almost due east. One of them is nearly as the sculptor left it. The others have been snubbed somewhat by the drifting sand, which sweeps by whenever the north wind blows.

As I have imagined Rameses the Great directed, so indeed there are, at each side of the pylon or entrance to the temple interior, two of the great master-pieces whose measurements I have given. As you face them, the one on the left is in the best state of preservation, and is cleared to its feet from the sand. The second has been broken down to its lap, by earthquake, and its head and trunk lie at its feet partly buried in the sand. The other two are in a well-preserved condition—both their faces good—but are partly under the golden sand also—the first almost to the calves of its legs, and the second quite up to its elbows. The north side of the temple is so near the edge of the mountains, so to speak, that the great incline of sand which comes down like a great Niagara or a Rhone glacier, close to, flirts around with the wind, wears off and changes and smoothes the outlines of the figures gradually, and also leaves its golden deposit at their feet, besides driving into the temple such loads and tons as sometimes wholly block the entrance. Even now, the eight figures of Osiris which support the Osiride columns, stand up to their knees in the sand. Nothing but a huge wall the height of the temple-mountain will evade this. And the antique architects

should have provided it. They evidently had no means of quarrying the stone, nor of raising it into a wall. However, there is enough uncovered for one's mind to take in at one time.

My second visit was by moonlight. I stood inside as the great orb came up from the Arabian chain, and saw the first beams enter the grand, solemn interior. They seemed almost timid at first, so softly did they enter this chamber of the gods. Then almost with a spring they fell upon the stony faces on the north side, and cast great, grand silhouettes of the beautiful faces upon the figured wall. The effect was grand, so expressive and beautiful are the faces. Led on by the light, I explored the other rooms—the second—the third and the fourth, the sanctuary, with Rameses and the gods whose faces then shone in the light. Then the dozen or more subterranean chambers were visited—all lined with hieroglyphics and inscriptions, after all not so hard to read, knowing that they all set forth the life-work of the great Sesostris, the Pharaoh of the Pharaohs, whose mummy I had seen at Boolak. The next morning, not content, I went again to see the effects given by the gentle moon, more brilliantly rendered by the rising sun. The shades of twilight still hung like a dark veil over the colossal faces, and how sublimely quiet it was, as I sat there upon the sand close by the north figure. Presently the top of the cornice, decorated by a long line of sculptured monkeys, was tipped by the earliest sunbeams. Then the metamorphosis began. Nature drove the dark curtain of shadow by degrees down to the sand and there rolled it out of sight, and in its place let fall a gauze of light tipped with crimson, just as an Egyptian maiden about to become a bride (I thought) removes her dark accustomed veil to give her beloved one glad glimpse, and then—quickly—in the twinkling of an eye—timidly replaces it by one of bridal white, which still withholds some of the treasures of her loveliness, the glory of her face. And as the sun came on, it threw a nimbus of glory over the forehead of Rameses. Then his eyes were fired with a new and kingly magnificence. Then new life and expression sprang into his lips, and the sun-

beams scampered about among his dimples, until, the grand illumination going on, the whole of the great statue was in a glorious glow—the shadows had all departed from the front, and lo! there they stood at the side giving contrast and roundness and vigor to the whole. It was great.

Then I crept down the golden glacier and went into the temple again. The bats were flopping about, to and fro, striving, surprised and blinded, to find their sleeping places, while Osiris seemed to smile at their discomfiture and distress. The great silhouettes still hung upon the walls, and I could decipher some of the art treasures of the "antique." In one panel is Rameses in converse with the gods. In another he is suckled by Isis. Now we see him holding twenty Nubians by their combined top-knots with one hand, while with the other he aims his sword at their necks. In one on the southern wall he stands alone in his chariot, the reins tied about his waist, his fallen charioteers at his feet, while he deals out death with his arrows on every side. All are more spirited than artistic, all telling of the greatness of him in whose honor they were engraved nearly 4000 years ago.

Then the camera was put to work, and profiles and full figures and arms and feet were gathered in. A dozen people on the lap of one great figure were photographed, standing abreast, not covering the great chest. One man was heartless enough to pose him upon a finger-nail. Magnesium light was used for the interiors, and a row over to the island opposite was necessary in order to secure the whole facade together with the smaller temple below. This latter, were it not for its larger neighbor, would be considered a great wonder too, though its facade is not nearly so deep and grand, nor its figured warders so immense. It was dedicated to the goddess Athor, and her likeness, in the form of the sacred cow, is many times seen upon the walls. Several statues of the king and the deities adorn the facade, and the small interior, about 90 feet deep, is divided into five or six small apartments. One gets the impression from it that it was the result of the first effort to create the great temple pro-

jected by the king, and the architects not coming up to his ideas, it was abandoned and a much grander one was hewn out of the neighboring mountain, which latter was doubtless satisfactory. The smaller temple, too, is close to the Nile shore, and perhaps it was thought that in time the water would be more destructive than the sand. The whole neighborhood is interesting, for small temples and excavations abound; fine views repay a scramble to the mountain-tops, and at Feráyg there is a pretty little temple which was once a Christian Church. On the ceiling is a painting of Our Saviour in the act of blessing St. George, who is spearing the dragon.

Forty miles from Ipsamboul is Wady Halfa, where donkeys are taken for another six miles across the desert to the cliff Aboo-Seer, whence fine views of the second cataract are to be had. The prospect is far more impressive than that at the first cataract, and is made up of a grander rock display, more live water, and a fearful desolate desert—illimitable—beyond, broken only here and there by bright oases to give relief to the eye. It was a scene to be had in no other country. Our return journey is being made while I write, and from my cabin window I can see, and live over again, a part of the past month upon the Nile. Just now we passed a swell in the river, surrounded by hills with outlines as glorious as those about the Italian lakes. Pelicans and cranes and waders and flyers and crocodiles, give variety to the narrow strips of land on each side, which make up the entire tillage of the Nile. Only where the water can be reached will anything grow. The Nile is "creator" here, they say. Breakwaters of rock are built in numbers to prevent the destruction of these narrow strips, and groves upon groves of palm trees are grown to give fruit and shade. The Castor oil plant, for oil to grease their plaited locks, is a necessity, but never a drop goes on the great ungreased axles of the sakaiyeh. The glow of sunrise is beautiful; the glory of sunset grand. It never rains, but the cold wind doth blow nine months in the year. We often stick fast on a sand-bar—hours at a time—and we have been below the Tropic of Cancer, and saw the beautiful constella-

tion of the "Southern Cross." Like a lover's walk, no two turns in the river show up alike. The whirlwinds carry the sand in great clouds heavenward, and then drive it where they will across the river and drop it down upon the mountains. "The stars and stripes," are often seen on the Nile, for Americans run the majority of the dahab-beahs. Whenever we stop at a town, the people flock to the quay in a body, and bring with them all they own for sale. One day I made a list, while we coaled, of what was actually offered for sale. Here it is: 3 straw mats; 1 calf; 1 sheep; 1 flint-lock gun; 1 old photograph; 1 pistol; 1 sword covered with gay calico in lieu of scabbard, with an old brass thimble to protect the point; 2 leather straps; 1 buckle; 4 hens; 1 rooster; 2 pieces of variegated matting; 3 bead necklaces; 1 complete female Nubian dress; 3 pebbles; a bottom of a wine bottle; 1 melon; 2 pieces of sand-stone; 1 stuffed fox; 1 live bird tied by its bill to a string; 1 spear; 1 calabash; 2 pans of milk; some eggs; 2 sprigs of henna; 3 castor-oil beans; 1 idiot child; 3 locks of plaited hair; grease and sand; 1 feather fan; 1 starch box label; 1 paper collar box; 1 dragon fly made out of pith; 3 corn stalk fiddles; 1 hairpin; 1 cat; 1 cracked cornelian; 1 pair of pigeons. And these are the people who have grown from the mighty builders of these grand temples. They sleep on mats, eat no meat, are never clean, have no ambition, and love the Nile.

We cannot tell where the Nile comes from, but there is no question as to where it goes, for along its shores are 46,236 shadoofs and 73,731 sakaiyehs, which, at the rate of 136 barrels each, lift up from the river to irrigate the land 16,315,512 barrels of water per day. Do you wonder that sand-banks, grow each day and that the Nile goes down, down, more and more?

EDWARD L. WILSON.

HYPOSULPHITE!

BY J. E. BEEBE.

RECENT experiments have convinced me that the addition of hyposulphite of soda to the oxalate developer is all that is needed

to make it the most perfect and desirable developer before the profession.

Every claim made by the most enthusiastic worker of the alkaline pyro developer is met with this new assistant. Softness, roundness, firmness of deposit, quickness of development, rapidity of exposure, rapid cutting, are all included in the list of its virtues.

If any of the sceptical users of dry-plates will make the experiment of using the oxalate developer with the addition of this powerful accelerator, they will be compelled to admit that the dry plate can give effects that the most exacting wet-plate man will be forced to admire.

Further experimenting may serve to change my views, or modify the formula, but at present it is as follows:

Water, 10 ounces.
 Hyposulphite of soda, 20 grains.

Hyposulphate can be used, but the color of the negative is not so good. To each ounce of developer add twenty drops of this solution.

Try a negative with, say, one-half the time usually given to whatever dry plate you are using, and develop carefully; then make another negative with the ordinary developer, leaving out the hyposulphite, and compare carefully shadow with shadow, and decide for yourself which has the best effect.

PHOTOGRAPHIC EXPERIENCES IN THE EAST.

BY WILLIAM H. RAU.

(Continued from page 185.)

OUR next day was to be spent at the great pyramids of Ghizeh; so early in the morning we started, crossed the beautiful Kasrel-Nil bridge at Boolak, over the Nile, and after a drive under beautiful acacia and palm trees arrived at the foot of the great pyramid about 8.30. One is so filled with wonder and admiration that it takes a few minutes to bring one's self to work; however, we opened up our traps at once, and after being placed, by Mr. Brugsch, in charge of the Sheikh of the Arabs, who gave us eight men to assist in carrying, we

began work. It was, indeed, a full day's work with no idle moment. The pyramids are very deceptive in size, they do not look so large until one tries to focus, then he finds he has but part of the pyramid on the ground glass. The Sphinx I was rather disappointed in; I had my impression from pictures which made it loom high up in the sky, that it was very much higher. Our best pictures of it were made with single lenses; thus for 8 x 10 the back lens of the Euryscope was used, which doubled the size and gave better perspective, the time of exposure with the smallest stop is trebled, but the resulting image is very sharp and clear cut. For stereoscopic size, the back lenses of the Morrison stereo, five and a half inches, gave a fine image; exposure, also, three times as much as ordinary combination. In making the close view of the entrance to the great pyramid, a lens of exceptionally wide angle must be used; so one five-inch Ross was put on, and found to embrace an angle of fully 90°. We made the circuit of all the pyramids on the Ghizeh platform, and made negatives of all of them; in one general view all were embraced; but our foreground was a vast desert, unbroken for hundreds of yards. To break this monotony, a group of Arabs, with their white turbans and striped cloaks, were carefully placed in the foreground. Many bits of the construction which were not beautiful nor picturesque, but would aid the student in architecture, etc., were taken, and special pains were taken to show the great pyramid in every part—looking up from the bottom, down from the top, along the long layers of stone, up the corner, etc., etc. A group climbing the pyramid was made to show how the Arabs assist. The ascent, although not so very tiresome at the time of climbing, tells in a day or two, when every bone in the body aches. On the top, the Arabs insist on cutting your name. Many famous persons have indulged in this fancy; among others is the name of Jenny Lind, in very large letters. The point or top is rather large and flat, about twenty feet square, in the centre of which stands a staff about forty feet high, placed there by General Stone Pasha for triangulation. Here we waved our American flags, emblems of the

youngest nation, on the monuments of the oldest in the world. After all outside work was done, we prepared for the interior, which was much more tiresome than the ascent. We were given eight Arabs, two apiece, as helpers in climbing, and four to carry our instruments. A supply of magnesium was also taken; and in we started, down an inclined, slippery opening, about four feet square. Notches were cut in the stone, which served as steps. Suddenly we are stopped by a huge stone; we turn to the right, climb hand over hand up the smooth, polished limestone, and find ourselves in a similar tunnel—only now we ascend, soon reaching the grand gallery, which is twenty-eight feet high, inclined at an angle of about 40°. Here we depended entirely on the Arabs pulling us up, as our shoes would slip and slide, so that it was impossible to stand; but the bare feet of the Arab clung fast, and, while one pulled and the other pushed, we soon reached a part where notches in the bottom served as a foothold. Suddenly one of the Arabs shouted "Look out!" cautioning us to lower our heads. We again entered a four-foot opening, and twenty feet further on entered the famous king's chamber, with its broken sarcophagus. The heat was intense, the darkness so thick you could feel it. After a hasty inspection, the cameras were pointed, the magnesium lighted, and exposure commenced. In focussing, I used the candle, focussing on the light, and getting the size by first holding it on the one side, then on the other extreme of what was wanted in the picture. A general view can not be made, as there is nothing but the stone sarcophagus that would give relief; even this, like all else inside, is intensely black. For 8 x 10, the Euryscope was used; for stereo, Morrison, full opening, both cameras exposing at one time. The exposure given was about five minutes. Sometimes there were six double tapers burning at one time. Great care was taken not to get the light immediately in front of the camera or quite a spot or streak will result. After duplicating the exposures we found the chamber so full of smoke that we were forced to leave. But during our stay in the king's chamber (which lasted an hour) our Arabs kept up

such yelling and gesticulating, which in this close, pent-up place, under thousands of tons of masonry, gave one an idea of the nether regions. In returning nearer to the open air, we could not resist making an exposure in the grand gallery. This was more difficult; as the light did not reach far and was necessarily in front of the camera, we were obliged to place the magnesium behind a figure; in this way the gallery was quite brightly lit up. We paid a visit to the queen's chamber, which contained nothing but a few bats flying about, after which we came out, having been inside about two hours.

We photographed the pyramids and sphinx and surroundings thoroughly, and needed changes of plates, so my dark tent came into use for the first time, and I confess I was more than pleased with its working. I had plenty of room inside.

And now back to Cairo, which offers much more that is picturesque and beautiful than Alexandria, many beautiful mosques, some of them very old, reaching their minarets high towards the sky. One of the oldest is that of Sultan Hassan, which is 535 years old; it is falling into decay, no one seems to interest himself in its preservation. On entering, large straw slippers are put on our feet to cover the unholy dust of the Christian, and, after winding about several avenues or halls, we enter the large open court, facing which is the niche, which faces Mecca, where the Mahomedans pray to the east; finding a number of Moslems at prayer, we arranged them in positions and made several pictures of them, after which the inevitable *backsheesh* had to be paid, the men running after us as we left, begging for a piastre. Just as we were leaving, and had just entered our carriage, we saw coming down the narrow street a Moslem funeral; this we wished to have a picture of more than many others, and as they were already close on us we were hurried our utmost. The steps at the entrance of Mosque Sultan Hassan offered the only available elevated spot; to this we scrambled in all haste; one opened the tripod legs while the other brought out the holder; no time to adjust instantaneous drop; so focussing on our carriage which was in line with the funeral

when it reached the proper distance from us, the plate holder was put on, and just in time, for the crowd of mourners had reached the spot, and the flap was thrown up, the plate-holder turned, camera moved on its pivot a trifle to gain on them as they moved, and another exposure made; the whole time occupied was not over three minutes. Where would a wet-plate worker have been? Here was a large funeral procession, such as one might not see again, and one that would make a good picture. We saw quite a number of smaller ones, but none so picturesque and impressive as this. Immediately opposite, across an open park is the citadel; it affords a commanding view of Cairo, the Valley of the Nile, the distant pyramids, and the sand hills of the desert beyond. The single lens of both 8 x 10 and others were used, as the distance was considerable and required such treatment. A rail-iron fence interfered with the use of a tripod so much that we were obliged to make a stand of our leather cases. Within the limits of the citadel is the beautiful alabaster mosque of Mahomet Ali, with the tomb of this unscrupulous tyrant, who died in 1849. It was completed in 1857. It is certainly one of the noblest structures of the kind, and being new it is exceptionally clean and elegant. The minarets are of all proportions, being very slender and very high (280 feet). In making negatives of its exterior, the swing-back and sliding-front were used to their utmost limit; even then there was scarcely enough sky to make a well-balanced picture.

On trying to enter the mosque we were at first refused admission, but finally succeeded on promise of liberal *backsheesh*; large red slippers were put on our feet over the shoes, and we entered with our traps; we first enter a large open court with a magnificent fountain for ablution in the centre; immediately in front of the mosque on one of the four sides is a square tower with a French clock, presented to Mahomet Ali by Louis Philippe of France. As the sun shone obliquely into this open court, it made a truly fine picture; everything was pure white, dazzling alabaster; in fact so bright is the glare, that on entering the mosque (which is quite dark) we

were unable at first to distinguish anything. The interior, consisting of a single large quadrangle, the domes of which rest on four huge pieces of alabaster, presents an imposing appearance; the ceiling is effectively painted and gilded. At the southeast angle is the tomb of Mahomet Ali, enclosed by a handsome railing. We made negatives of the interior, but I am doubtful if the 8 x 10 will develop up enough detail, as we were obliged to leave after having given but half an hour, when at least one hour was necessary. The greatest charm of Cairo is the street life. It is as exciting, amusing and bewildering as the Arabian nights' entertainments. It is a moving panorama of all nationalities, creeds, languages, and costumes, with a strong preponderance of the Oriental and semi-barbarous element. It is a perpetual carnival which defies description. The old houses are high and narrow, with upper stories projecting. The streets are covered in many places with rafters and matting, to keep out the glare of the sun, and are lined with open shops of every variety. They are alive with gaudily dressed and half-dressed men and veiled women, water carriers, peddlers of all kinds of wares, braying donkeys, camels, horses, and carriages—jostling against each other in endless confusion. In the mosque the crowd is so dense that it seems impossible to get through, and the noise is so loud that you can not hear your own voice. The men as a rule wear the red fez or tarboush, with turbans of all colors. The women are imprisoned in long veils of silk or muslin, white, black or blue, according to rank; the veil is divided about the forehead, and fastened to a pin or cylinder of brass, silver, or gold over the nose, so as to leave the dark, restless eyes free to satisfy curiosity. Many of the lower rank carry naked babes on their shoulders or in baskets, and the eyes of the poor children are in undisturbed possession of swarms of flies. The bazaars are simply impossible to describe; there are bazaars for gold and silver work—for silks—for shoes—for fez caps—tobacco and pipes—each thing in its own special place. Every carriage and aristocratic donkey is preceded by one or more fleet runners (seris) in short trousers, bare legs, Tunisian

fez with very long tassel, and with a tall staff to clear the way. We had the good fortune to make the acquaintance of a young English lady, who wished us to make a picture of a fine Arab horse, white as milk; she had quite a garden attached to the house, and in this, with some shrubbery behind, and the seris, decked out in his best gold-embroidered costume, holding the bridle of Dervish, we had indeed a picture. Our plan of working was to take a carriage for the day, get a dragoman, an Arab who speaks enough English to explain and assist, then drive around through the crowded streets and snatch anything or anyone that we wished to photograph.

Coming through one of the narrow lanes not much wider than an alleyway, we found some rare old latticed windows—every style, every shape, and form seemed to be located close together—and in making negatives of them I sincerely wished for a front that would slide an inch or two more, and a swing-back that would go another inch. A person who has never seen Cairo can scarcely conceive how very narrow and winding the streets are. Occasionally on making a short turn one faces a beautiful high minaret, which seems to block the street, and even high up into the sky. We long to make a picture of it, but are almost powerless. Again on planting the camera we are at once surrounded with such a crowd that the passage is completely blocked, reminding me of the Centennial, where similar occurrences so often took place. Early one morning we drove over to the market on the western bank of the Nile, just near the end of the Kasr-en-Nil bridge. Here we were at once assailed by the irrepressible donkey boys, at least ten of whom were shoving and fighting each other for our patronage. We, instead of hiring their donkeys to ride, grouped them with a fine palm grove as a background, and photographed them, much to their delight, after which they had their usual fight over the *backsheesh*, which was given one of them to divide among the rest. In the market we grabbed many picturesque groups, all the more natural, because they were captured with the instantaneous drop. One old fellow, holding two goats, especially interested

us—his costume of striped goat's hair-cloth was simple yet graceful. An old woman seated on a high table, selling bread, was caught on the fly just as she was reaching over some loaves to a little girl close by. Just beyond the market begins the noble avenue of acacia trees, which shade the drive to the great pyramids. We caught a picture of this avenue just at a happy time of the day, that is, when the sun was low and lit up under the trees.

(To be continued.)

ALPHONSE POITEVIN AND HIS PHOTOGRAPHIC DISCOVERIES.*

(Concluded from page 168.)

DUKE Albert de Luynes had founded, in 1861, a grand prize of eight thousand francs, having for its object a transformation of photographic prints into plates, from which a great number of prints might be made by the engraving and lithographic processes, without the aid of the human hand in making the drawing.

The Committee appointed by the French Photographic Society to judge this competition, did not find the results obtained sufficiently complete, and decided (after having, however, pointed out the importance of the works offered by M. Poitevin, Charles Nègre, and Pretsch) not to bestow the prize, and to prolong the time for the competition until April 1st, 1864.

The report of the committee empowered with the bestowal of this prize of eight thousand francs, was only given to the public in 1867. This report is due to the pen of the Honorable M. Davanne, and we give here this epitome of it.

First he passes in review the *inventions and work on photographic impressions with fatty ink before the foundation of the prize of the Duke de Luynes*, and he reaches the conclusion that, before the offering of this prize, due consideration should be given to the work of MM. Nègre, Pretsch, Poitevin, and Garnier, in the above direction. "M. Nègre, taking up the bitumen of Judea of Nicéphore Niépce, and making by it

a process entirely his own by the application of a gold coating; perhaps suggested, however, by former works of M. Fizeau."

M. Pretsch, taking the mixture of soluble bichromate and the organic matter indicated by Talbot, utilized the insolubility in tepid water of the parts acted on by the light to obtain, no longer a protecting coat, but sunken lines and reliefs capable of being moulded and galvanoplasty of furnishing plates with sunken lines. He also used (but probably after M. Poitevin) the partial swelling of gelatine in cold water for making moulds of greater relief. M. Poitevin takes this same mixture of soluble bichromate and organic matter of M. Talbot, and he obtains from it a whole series of applications:

1. By spreading this mixture or an analogous one on stone, then inking after exposure, he obtains a practical process, now in use, of photo-lithography on stone or metals; this process belongs exclusively to him.
2. By utilizing the swelling of gelatine, he obtains by moulding either sunken lines or reliefs, which he converts into plates for galvanoplasty.
3. He utilizes this same process of moulding for ceramic decorations.
4. By means of a mould and a counter-mould, he makes prints in tinted gelatine.

MM. Salmon and Garnier proposed to utilize the action of iodine, of light, and of mercury upon a sheet of brass; the process is quite original, and the reactions very curious; they convert at will these prints into plates for engraving, typography, or lithography, but these processes, at that time, gave such unsatisfactory results that they are not to be taken into consideration.

The second part of the report of M. Davanne has for its object the examination of the works offered at the competition. A rather large number of competitors took part; let us confine ourselves to the mention of their names: MM. Rosseau and Musson, Poitevin, Pretsch, Thévenin, Ch. Nègre, Dufresne, Renaud, Saillard, Garnier, Salmon, the Abbé Laborde, Asser, Bertschold, Talbot, Pouncy, Newton, Jobard, and Placet. Of all these names, the commission can only

* A lecture delivered before the Paris Syndical Chamber of Photography by M. Léon Vidal.

retain those of MM. Pretsch, Nègre, Poitevin, Garnier, and Placet.

Although the competition was closed in 1864, the report of the committee was adjourned until 1867. It concludes by stating that M. Poitevin has completely fulfilled the conditions laid down by the Duke de Luynes.*

In fact, by his process of printing with fatty ink, which is lithography, he readily reproduces any photographic print without retouching, so as to give every guarantee of authenticity, and in such numbers as may be necessary to bring it within the reach of all documents useful to the arts and sciences. He has, therefore, fulfilled the intentions of the founder of the prize, and by this right the committee has decided by a unanimous vote that the prize of 8000 francs should be awarded to him.

If we have entered into these details, for the length of which we crave pardon, it is with the single end of demonstrating, from the start, the incontestable rights of Poitevin to priority in the matter of carbon and photo-lithographic prints.

The competitions above alluded to were sufficiently serious, the judges sufficiently competent and impartial to leave no doubt in the matter. We have here incontestable proofs against which no one to-day pretends to raise a doubt. It results from the facts that we have just stated, that Poitevin is the creator of the principle made use of in photoglyphy.

We do not wish to deprive Woodbury of what belongs to him; he has the great merit of having evolved from the principle laid down by Poitevin the remarkable printing processes known as *Woodburytype*, or *photoglyphy*, but the basis of the process is, in fact, *helioplasty*.

Did not Poitevin present at the competition for the prize of the Duke de Luynes a process designated by this name, and with the aid of which, *by means of a mould and a counter-mould, he made prints in tinted*

* The members of this committee were: MM. Regnault (of the Institute), Balart (of the Institute), Paul Perier, Mailand, Count Olympe Aguado, Bayard, E. Becquerel, Cousin, Léon Foucault, Hulot, Count Léon de Laborde, Peligot (of the Institute), Robert, and Davanne.

gelatine? This is the exact definition of photoglyphy, except that to Woodbury belongs the incontestable merit of having established upon this basis a magnificent process of photo-mechanical printing truly industrial in its character.

The indications that precede are amply sufficient to prove the legitimacy of the rights and inventions which make the glory of Poitevin. But he did not stop there, notwithstanding the importance of the discovery of the carbon process, photo-lithography, helioplasty, and a great number of applications following from these three distinct methods.

Whilst studying the curious action of light on the iron salts, he discovered that tartaric acid, in the presence of an excess of an iron salt, was an energetic reducing agent, and, in 1860, he communicated to the French Photographic Society the results of his new discoveries—a new carbon printing process by dusting with a powder. The mother idea was not new, since, as we have already seen, these prints obtained with powders were already known; but what constituted a new process was the use of a sensitized film composed of perchloride of iron and tartaric acid. In this case, it was necessary to use a negative cliché, whilst it is a positive that is required by the Garnier process with bichromatized sugar.

Before this, Poitevin had studied a process with gallate of iron, giving images formed by writing ink, a process which, perhaps, is practised to-day with some changes. But let us admit, once for all, that Poitevin, the creator of principles, was obliged to leave to practical men the care of applying the principles published by him, rendering them more complete by all the improvements requisite in the working of any industrial operation; let us not forget that, above all, his part was that of an initiator.

Nearly all of the chemical actions of light upon the salts of peroxide of iron—actions which to-day play so important a part in industrial photography—ferro-prussiate, cyano-ferro papers, etc., were studied and made known by Poitevin as far back as 1859. We are forced to pass over in silence his studies on alloxantine mixed

with bichromate of potash, on the mixture of alloxantine and bichloride of mercury. There would be too much to say, as we have already intimated, if we wish to review the entire work of Poitevin. For the present, we simply wish to bring into full notice those of his inventions that have received industrial application, those whose advantages are capable of increasing and becoming more general.

First, we have the printing by the first of his two carbon processes; a mixture of gelatine and carbon, sensitized by bichromate of potash. The paper after exposure bears a latent image to be developed in warm water. Those portions of the mixture not acted upon by the light are the only ones that are dissolved.

Now comes photo-lithography, or phototype on stone, glass, metal, whatever be the support and whatever be the vehicle. The bichromatized gelatine spread on a plane surface, rigid or flexible, is exposed under a negative cliché; then, after immersion in water and desiccation, the film is again wet, but it has been rendered impervious to water in the parts acted upon by light, and in divers degrees, according to the divers degrees of the corresponding opacities in the cliché; it therefore forms a printing surface analogous to that of a lithographic stone. The fatty ink only adheres to the parts impervious to water, whilst it is repelled by those that are wet; this is truly an industrial printing process.

Whatever may be the improvements given to this initial process by M.M. Albert, Obernetter, Tessié du Mothay, Edward, and some others, it still remains the exclusive property of Poitevin. Improvements do not constitute inventions.

All the applications of the phototype, whatever they may be, giving images capable of being transferred to wood, stone, metallic plates, porcelain, glass, etc., are also due to Poitevin, who has indicated them in the most general manner, there being no necessity, in order to establish his rights of priority, for him to make an immediate application of them. If we insist upon this question of priority, which is now indisputable, it is because numerous attempts

have been made to deprive Poitevin of the merit and honor of his principal inventions. Thus, to cite an example: M. Fargier, or rather M. Charavet in his name, has he not contested the conclusions of the report conferring upon M. Poitevin the prize of 2000 francs of the Duke of Luynes, pretending that, inasmuch as the prints of M. Fargier were recognized as superior to those of Poitevin, it would have been more just to award the prize to him who had made the best application of the carbon process? M. Charavet was evidently in error, and, in our opinion, it seems more just to give precedence to the best process, whatever be the result shown, inventors in general not being good practical workers, which does not prove, however, that their processes are not good. In point of fact, what were the ingenious results of M. Fargier, when compared with the mother invention of Poitevin?

Without Poitevin would there have been a Fargier? This is the way the question should be put. In the same manner, without Poitevin would Albert and Obernetter have made the improvements that we see?

Other brilliant claims have shown the merit of our industrious inventor and justified the reports of the preceding committees.

The Academy of Sciences appointed, in 1864, a committee composed of MM. Pouillet, Chevreul, Combes, Regnault, Becquerel, to reward meritorious inventors for their discoveries; it was the question of awarding the Trémont prize. After having analyzed the works of Poitevin, the reporter, M. Becquerel, expressed himself as follows: "Taken as a whole, the works that we have just described should occupy a high place in the history of photography, for they have been the starting-point of the investigations made during the last ten years with the view of substituting unchangeable bodies for the silver compounds which form photographic images, and for the gold compounds which usually cover them for their preservation.

"We believe, moreover, that these works will exercise a great influence in the improvements of the methods now in use for the making of positive prints.

"Such are the motives which induced the

committee to propose to the Academy the awarding of the Trémont prize to M. Poitevin, and to give him the enjoyment of it for two years for his photographic discoveries, and in order to aid him in continuing these investigations, which are a veritable progress for science and industry."

At the time of the Universal Exhibition of 1878, the entire jury, wishing to acknowledge the eminent services rendered by the modest inventor, proclaimed him collaborator of the general progress of photography and asked for him an exceptional grand prize, with an allowance of the sum of 12,000 francs.

This sum, we may say in passing, was not given to Poitevin, although the regulations of the Exhibition had foreseen the use of funds destined for grants of this character. He did not lose anything however, for in July, 1880, the National Encouragement Society awarded him the prize of the Marquis of Argenteuil of the same amount.

The report awarding this prize is an additional confirmation of the facts that we have mentioned.

"We are but too well aware," said M. Davanne, "that the man who gives himself up to his inventive genius often forgets the necessities of life, and if he reaps glory, it almost always happens that the more positive fruits of his discovery are gathered by those who have known how to cultivate them.

"This bitter experience fell to the lot of M. Poitevin. He saw escaping from his hands the profits of inventions too soon born, the ripe applications of which are now profitably worked, inasmuch as his patents have long since expired.

"It is not, therefore, to his invention, nor to an inventor, that you award to-day the grand prize of the Marquis of Argenteuil; it is to the learned creator of a group of processes which have furnished a number of divers applications, which, by lithography, engraving, typography and permanent photography, facilitate the spread of the sciences and the arts."

"It is the well-deserved reward of his useful works; and his name being placed on the mural tablets of the Encouragement Society together with many other illustri-

ous ones, will effect the perpetuation of his fame."

But these numerous rewards coming afterwards to be added to those which had already crowned the discoveries of Poitevin, together with his being made Chevalier of the Legion of Honor, after the London Universal Exhibition, are striking proofs of his rights in the face of any possible discussion; if the last judges, better informed than the preceding ones, have reached the same conclusions, it is because the first had rendered most just and equitable judgments.

It would be useless to multiply the convincing citations that we have just given; it is not going too far, therefore, to say, in the words of the illustrious J. B. Dumas, at the Academy of Sciences, that the name of Poitevin deserves hereafter to be placed by the side of those of Nicéphore Niépce and Daguerre.

As for us, gentlemen, whose amiable colleague he was, and for our Association of which he was one of the Honorary Presidents, it is not sufficient to honor his memory as it deserves; it is already something to devote ourselves to this new vindication of his fame, but there is something more and better to be done.

This worthy scientist, this inventor, as laborious as he was disinterested, did not obtain from his important and incessant work the advantages that he hoped for. He only desired a modest competency necessary for the education of his family; this he barely obtained, but without being able to put anything aside for the future.

This for him was a source of continual grief. We have letters which prove how much this weighed upon his mind a few months before his death.

Our duty is to take such concerted measures as will afford efficient aid to his children, at the same time that we raise to their father a monument worthy of the immense services that he has rendered to our art.

They are numerous to-day who practise the processes of which Poitevin was the father. None of them, we are sure, will refuse to aid in the performance of the moral duties devolving upon them by his premature death.

They will not forget the eloquent words

of the report of M. Paul Perrier, which might be slightly modified to-day, by saying that Poitevin was *the man who planted the seed, while others have reaped the harvest.*

Commemorative monuments are being raised to Nicéphore Niépce and Daguerre. Poitevin was their brilliant follower, and even if we call him a follower only, he has, nevertheless, given to science some of the most beautiful discoveries of this century.

We hope that photographers will appreciate what they owe to this great memory; but it imposes itself also on the remembrance, respect, and admiration of all scientists in general, and more particularly on all those who make use of the new graphic processes for printing and engraving.

It might perhaps be expected that we would give some facts relating to the private life of Poitevin, to his scientific career so well filled, and to his disappointments. For what inventor is free from them? But these are secondary considerations. The rights and striking merit of the inventor outshine all. Pardon us, therefore, for having limited our words to this new proof of the great and useful works of the illustrious scientist regretted by the whole scientific world, and who, by his death, bearing on his brow a brilliant crown of glory, has just passed into immortality.

FERROUS-OXALATE DEVELOPER FOR GELATINE PLATES.

BY JOHN CARBUTT.

IN the old wet collodion process, photographers, when asked what strength of developer they used, would reply: "Oh, a twelve, fifteen, or twenty grain iron solution, as the case may be." Ask a gelatine dry-plate photographer the strength of his iron developer, and I question if there are many who could answer as to the number of grains of iron to the ounce of developer he was using. My experience teaches me that to be successful in working gelatine plates, it is important to know the strength of your developer best suited to the plate and subject in hand, a knowledge not at all difficult to acquire. The first to use ferrous-oxalate developer recommended saturated solutions of the oxalate of potash and sulphate of

iron. The writer early saw that a solution under saturation would be preferable, so as to maintain the same strength under varying temperatures.

The simplicity of preparation and use of the ferrous-oxalate developer has made it a general favorite, and the object of this article is to give a few notes from the writer's experience in making and using this developer.

First, in the preparation of the oxalate solution: the *neutral* oxalate of potash sold as such will be generally found slightly alkaline; this should have added to it sufficient oxalic or citric acid (the writer prefers the latter) to give a decided acid reaction to blue litmus paper; we take then to make our

<i>Stock Solution of Oxalate of Potash,</i>	
Neutral Oxalate of Potash, .	16 ounces,
Clear Water,	64 "
Citric Acid,	$\frac{1}{2}$ ounce.

When dissolved, and at a temperature of 60°, test with the actino-hydrometer; if it tests over 80, add a little water, well mixing with bulk, until the hydrometer just stands at 80 grains to the ounce.

If it is thought best to make the oxalate solution from the raw material, proceed as follows:

Carbonate of Potash (sal-tartar),	16 ounces.
Dissolve in Warm Water,	50 "

In an earthen or glass vessel capable of holding at least twice the quantity, add by degrees oxalic acid, 14 ounces; when dissolved test with litmus; if it remains blue, add of a strong solution of citric acid sufficient to redden it, then add water until it tests 80 of the actino-hydrometer; the bulk will be a little larger than that made from 16 ounces of oxalate of potash, but not much; do not suppose that, because you use 30 ounces of dry material, you will get, if it were evaporated, 30 ounces of oxalate of potash, for much passes off as carbonic acid; nor take 2 pounds of oxalate of potash to replace 1 pound each of carbonate of potash and oxalic acid, as was recommended by a writer some time ago in one of our journals.

The above strength of oxalate solution we have found a very useful one.

Stock iron solution we make of a strength

of 100 grains to the fluidounce; select clear, light-green, and fresh crystals of sulphate of iron, 8 ounces; dissolve in hot water, 28 ounces; then add water to exactly measure 35 fluidounces; add sulphuric acid, 30 drops; filter into a clean bottle, and cork for use.

Bromide solution of 10 per cent.; potassium bromide, 1 ounce; dissolve in water sufficient to make 10 fluidounces; add of this 1 drachm for each 6 ounces of oxalate solution. Now as to the strength of the iron to the oxalate, I am guided by the character of the plate I am using, slow, rapid, or of the instantaneous kind, and also subject, light, and exposure; for general studio use, a mixture of 1 part of iron solution to 5 of oxalate will be found to work well on a 5 to 6 times wet-plate rapidity; for a landscape, I would add 2 or 3 ounces of water and $\frac{1}{2}$ drachm more bromide solution, with a view to slow development, passing it into the stronger developer if found to require it from under-exposure; where a developer of greater energy is required, as for on and off exposures in the studio, and instantaneous out-door views, the iron can be added to the oxalate solution in a dry state, as recommended some time ago by Mr. H. J. Newton, of New York.

Pulverize fresh and clear crystals of sulphate of iron, and keep in a closely corked wide-mouthed bottle; to form a developer of great energy, add twenty grains of powdered iron to each ounce of oxalate solution, stir with a strip of glass and use at once.

Our experience, both with wet and dry-plate photography, leads us to the conclusion that a very close similarity exists as to the number of grains of iron required to the ounce of fluid developer in the wet and the dry. Therefore I use for landscape time exposures, using A plates, a developer composed of

Oxalate Solution,	. . .	5 ounces,
Water,	. . .	2 "
Iron Solution,	. . .	1 ounce,

which makes about 12 to 13 grains of iron to the ounce of developer; when using B plates omit the water and the developer will contain about 15 grains of iron to the ounce. I prefer the image to be 20 to 30 seconds before putting in an appearance.

Where it is desired to obtain a thin, clear negative for solar printing, omit any use of bromide, and in place, as a restrainer, add to each ounce of developer one drop of sulphuric acid. Finally, we find a general expression of opinion by those using ferrous oxalate, that a developer fresh mixed for every six or eight plates is the better plan.

STRIPPING THE NEGATIVE FILM.

IN the course of a recent conversation with the business manager of an important photographic establishment in this city, we were informed of a project of removal, on the part of the owners of the business, to the more commodious quarters rendered necessary by the increased demand for their work.

Not the least troublesome part of such an uprooting was the removal of their entire stock of glass negatives, numbering about one hundred and fifty thousand; and while offering our congratulations on the increased appreciation on the part of their patrons, we honestly confess that we did not envy them the risk and trouble involved in the transportation of such a large bulk of most precious stock, and in face of the fact that packing and transportation of glass and other perishable material has now become easier than it ever was, our thoughts reverted to large collections of negatives, which we had seen in the pellicular form safely stowed away between the leaves of scrap-books, so that breakage would be entirely obviated in transportation, and the immense weight and cost of glass saved.

It has often been a matter of surprise to us that the stripping of the negative film was not more commonly practised, especially when we consider how much more safe a valuable negative is in this condition, where neither changes of temperature are to be dreaded on the badly annealed glass so often met with, nor a sudden loud crack on fastening down the printing-frame door, tell us so plainly what had happened that we do not have to turn over the frame to see; nor a fall on to a stone-floor or any hard surface mean destruction to something over which we had toiled and triumphed.

We repeat, that it has seemed somewhat strange that photographers should go on accumulating housefuls of negatives in a perishable form, when it is not only possible, but quite easy to do otherwise. This we say having particularly in mind the exigencies of the ordinary portrait business. But it is even more true for the landscape and business photographer, who would gladly preserve all that he makes, especially if he has invested capital and time in travelling to secure certain subjects; and the immense advantage to this class of photographers of being able to transport negatives for unlimited distances without the risk of accident is too obvious for further mention.

The stripping of a film is by no means the difficult and dangerous thing that it may appear to be to those who have not given it a trial; and although the reapplication of a stripped film to glass is a little more difficult, yet it also becomes very easy and certain after a few trials.

Let us give a few directions then how to proceed; and let us begin with the standard wet collodion film, presuming that it is desired to make a pellicle negative, and preserve it in this condition, and not to reapply it to glass, full directions for which will be given farther on.

No special attention need be given to the collodion, any good sample succeeding if properly managed.

The glass must be well cleaned, and here let us say that it will be well worth while to use a good quality of thin plate, for as each piece may be used over and over again, the expense will not be very great, and the ease with which such glass can be cleaned, and its fine regular surface, make it most desirable for this class of work. Let it be soaked over night in weak nitric acid, then well washed, and after draining, wiped dry with a roll of Joseph paper, finishing off with a second roll moistened with alcohol. With a tough and contractile collodion it would be possible to proceed at once to making the negative, merely brushing off the surface with a good stiff duster; but it is safer and better either to polish the surface with powdered French chalk or to apply a rubber substratum. The text-books contain numerous formulæ

for preparing a solution of India rubber, but it will be found that some care and attention become necessary if such a solution is to be used as a substratum, *i. e.*, to cover the whole surface of the glass previous to coating with collodion. The directions usually given are simply to cut up pure India rubber* into small pieces and dissolve it in benzine. In our hands this has proved quite unsuccessful; such a solution is easily prepared indeed, and answers perfectly for edging dry plates, so as to prevent the lifting of the film at the corners, but if an attempt be made to coat the plate with it, it will run off in oily streaks and, in short, it will be found impossible to get an even coating.

The best method of preparing an India-rubber solution for this purpose is to use rhigolene as the solvent, and if the gum should not dissolve freely, it may be moistened with chloroform and allowed to stand until swollen up before the rhigolene is added. Nothing more is required except filtration through paper, taking care to cover the funnel tightly with a flat glass plate, inasmuch as rhigolene is one of the most volatile fluids known, and it is to this property in fact that it owes its power of producing intense cold, being used by surgeons for local anæsthesia in some of the lesser operations. The solution when prepared should be slightly opalescent and very thin; not more than a grain or two per ounce of India rubber should be added, and any thickening of the solution by use made up for by dilution with rhigolene. The plates are to be coated with the solution just as if it was collodion, and set up in a rack to dry, which will be effected in a few seconds. Plates so coated should be used within forty-eight hours, for the rubber film becomes brittle and loses its elasticity if kept longer.

Another method of preparing the glass is, as we mentioned above, to treat it with powdered French chalk. This can be bought at the drug stores in the form of an impalpable powder, and may be very conveniently kept in a small tin pepper-box, or one of the boxwood dredgers used by

* Known to the trade as "virgin gum."

glove-makers. After the glass has been cleaned in acid and wiped dry, a little of the powder is to be shaken over its surface, and well rubbed in with a ball of clean cotton. A chamois skin is now to be applied, and the surface of the glass thoroughly polished until free from streaks. The powder will have been all carried off apparently, but enough will remain both to fix the collodion film firmly during the operations of making the negative, and to render the stripping easy and certain.

No directions need be given here for making the negative, all the manipulations being conducted as usual.

The negative, after having been dried, is laid on a levelling stand and a solution of gelatine poured over it to the depth of about an eighth of an inch, taking care to avoid bubbles. If they form, they must be carefully removed with a bit of paper, without scratching the film.

The gelatine solution is prepared as follows :

Gelatine,	. . .	4 ounces.
Glycerine,	. . .	4 drachms.
Water,	. . .	32 ounces.

After dissolving, add two ounces of alcohol, stirring briskly, and strain through muslin.

The proportions here given form a good standard solution ; but it must be borne in mind that the proportion of the gelatine to the water, and of the glycerine to the gelatine, should vary with extremes of temperature, or dampness of climate ; less glycerine, for instance, being required when the weather is damp, and more when it is very dry and cold, the function of the glycerine being to modify the extreme contractility of the gelatine.

After the gelatine has set, the plate is to be dried in a place free from dust, and then laying it flat on a table, the point of a knife guided by a ruler is to be carried through the film to the glass, about a quarter of an inch from the edge all round. The film may now be started by lifting it at one corner with the point of the knife, and by a steady and even pull, it will leave the glass in one sheet. A suitable book, with the leaves made of blotting-paper, should

be provided as a receptacle for the pellicle negatives.

The advantage of using plate-glass for the negative will be plainly seen if the surface of the film that was in contact with the glass be now examined. It ought to be perfectly smooth, even, and highly polished. If an inferior quality of glass has been used, the film will be found to have taken the impression of every bubble, scratch, or other irregularity.

The operations just described are in every respect applicable to the washed collodion emulsion film, or indeed, to any dry collodion process where no albumen substratum has been employed. We have succeeded in making a transfer even where the glass had been albumenized, but do not advise the attempt, for the risk of sticking and tearing of the film becomes much increased by the presence of the albumen.

Before taking up the subject of the stripping of the gelatino-bromide film, let us say a word about the double transfer of a collodion negative. This is so invaluable to the travelling photographer that we feel that it ought to be as widely known and practised as possible. The negative is here stripped off the glass by means of gelatinized paper, *i. e.*, paper floated on a solution of gelatine, about 1-15, and dried. A sufficient number of sheets of paper are thus prepared and cut to the proper size before leaving home. After the negative has been made and is quite dry, it is laid in a deep vessel of clean water film-side up, and one of the sheets of gelatine paper with the film down is immersed in the water and held there for a few seconds until it has become thoroughly saturated and free from any tendency to roll up or cockle. It is now carefully brought down towards the negative film until it just touches ; then by lifting the glass, it will adhere to the film of itself. After draining off the superfluous water, the glass is to be laid flat on a table, and a soft India-rubber squeegee passed over the paper a few times. The glass is now left in its level position for about half an hour, or until the gelatine has had time to take firm hold of the collodion film without the paper drying. By passing the point of a pen-knife under the

edge of the paper it may be lifted, and will carry the film with it, a little neat manipulation sufficing to strip the entire paper and film together off the glass. After drying, it may be trimmed and put away between the leaves of a book, and so carried home.

The only points requiring attention in this apparently risky procedure are not to force the wet paper roughly down on the negative film with the fingers, and to allow the proper time to elapse before attempting the stripping. An exact rule, of course, can not be given, but it will generally be found, that the paper should be allowed to become nearly surface-dry before starting the edge with the knife point. If the paper comes away and leaves the film behind, a longer time must be allowed, while if the paper gets dry, the film will be certain to crack when it is lifted, unless a sheet of wet blotting paper be laid over the glass for a few minutes to restore the necessary moisture.

When it is desired to reapply the negative to glass, a solution of gelatine is to be prepared of the strength of one ounce to ten or twelve of water. Add to this four grains of chrome alum dissolved in half an ounce of water; stir thoroughly and filter through muslin. Prepare the requisite number of glasses by coating them with this after having well cleaned them. After the insoluble gelatine coating has become quite dry, the glass is to be laid surface uppermost in water, and the negative on its paper support immersed in the water and made to adhere to the glass just as described above. The manipulations are identical, and after getting the paper smoothed down with the squeegee, the plate is to be thoroughly dried over night. The following day dip it into a vessel of hot water, and after a few moments the paper support will float off and leave the film firmly attached to the gelatine coating below, which becomes quite insoluble in water by the addition of the chrome alum. The plate may now be rinsed off in warm water, and after drying, varnished as usual.

Care is to be taken not to allow the negative on the paper to roll up, nor to get creased nor folded, and when it is first dipped into the water to reapply it to the

glass, hold it out straight and do not allow the sudden wetting to make it unmanageable.

The gelatino-bromide film may be stripped in much the same manner that we have already detailed for the wet collodion plate. If the plates, however, be bought ready prepared, an arrangement with the manufacturer had better be made beforehand, so as to enable him to prepare the glass specially for this purpose before coating. The best method of doing this is to give the glass a rubber substratum after cleaning, in the manner already described, and then to give it a coat of plain collodion and dry it. The gelatine emulsion is flowed on the collodionized surface just as usual, taking care not to injure nor scratch it if a rod or any hard substance be used as a spreader to assist the free flowing of the emulsion. No directions need be given for any further manipulations, the drying of the plate and making of the negative being done in the routine manner, and the coating with gelatine, drying, and stripping off, being the same as for the wet collodion film.

Let us conclude, however, by hinting to those who prepare their own plates, that the film must be "hardened" before the warm gelatine is poured on, either by the proper additions to the emulsion, or by an alum bath, before drying, and so avoid the mortification of seeing the negative film dissolve.

EXAMINE YOUR CAMERAS.

BY DAVID ROBERTSON.

I WISH to call the attention of amateurs (and professionals, also, for that matter), of whom there are, no doubt, many starting out on a summer's tour with camera and dry-plates, to the necessity of *carefully* examining their apparatus before concluding that everything is all right, and perhaps returning with a batch of plates more or less fogged, or in other words, lacking "wet-plate brilliancy," of which we hear so much against the dry-plate. I refer to light that reaches the plate without coming through the lens.

Noticing that some of this season's negatives, compared with last year's, lacked "something" shown by the latter, I took my camera out into the bright sun to examine for leaks, suspecting that as the cause of the fog. I capped the lens, inserted the smallest stop, removed the ground-glass, put my head into the camera, drawing the focussing-cloth well about me to exclude all light, and saw nothing but perfect darkness. I then shut my eyes and waited in this position for a few *minutes*, and opened them. Beautiful streams of pure white light greeted my sight, coming from around the edges of the square front piece, from under the sliding front *when well up*, and from the top when *well-down*, also through the stop-slot. I tried other lenses with rotating stops, and found one of a celebrated English maker (made in wet-plate days) that let in enough light for me to read the numbers of the stop-opening by. The quantity of light coming in at all these points was something considerable, and if one-quarter of the amount had reached my plates in the dark-room when coating, I should have considered them spoiled. How then about every plate going through such an ordeal. I had examined for such before, as no doubt many others have done, and noticed nothing wrong—but one must take a *long* look until his eyes are accustomed to the darkness. Loose woodwork will shrink and sometimes warp. I need not say more, but take my advice and look into these matters before you take it for granted that everything is all right with your camera and lenses; the result may cause you to feel more friendly towards the dry-plate maker, and be the means of your producing what some think cannot be, viz., brilliancy on a dry-plate.

P. S. I might add, that I have three first-class make of cameras, and that only two of them leaked.

A WONDERFUL SALE.—Wilson's *Photographics* has, in less than one year after its publication, met with a sale of nearly 3000 copies, which is an unprecedented success for a book costing so much. It is now the *leading* work in our art, and has well earned the position. Price, \$4.00.

PROCEEDINGS OF SOCIETIES.

PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.—A regular meeting of the Society was held on Wednesday evening, June 7, 1882, the President, Mr. Joseph W. Bates, in the chair.

The minutes of last meeting were read and approved.

Mr. Barrington, chairman of the committee, reported that the excursion party, consisting of twelve members, started in accordance with the programme at 12.30 A. M., on May 22d, for Washington. On arriving at Georgetown, D. C., the party embarked on the steam canal barge "Maryland." After a week spent pleasantly in photographing the picturesque bits along the canal, the party arrived at Cumberland, Md., on Saturday, the 27th, from there by rail to Bedford, Pa., where Sunday was spent. Returning, Philadelphia was reached early Monday morning.

Messrs. W. D. H. Wilson, William A. Dripps, Galloway C. Morris, and D. Jones, were duly elected members of the Society.

The committee appointed to select pictures suitable for the presentation prints, reported that they had selected "A rope ferry over the Shenandoah at Riverton, Va.," by Mr. Corlies, and "Schloss Stockalper and the Valley of the Rhone from Brieg, Switzerland," by Mr. Wallace.

Mr. Wood read an interesting account of the recent excursion, in which he graphically described some of the notable incidents.

Mr. Browne exhibited some excellent instantaneous pictures by Mr. Levy, of New York, which were remarkable for their extreme sharpness. This result, he said, was gained by using a small stop in the lens and extremely sensitive gelatine plates.

Mr. Carbutt showed a fine artotype print of the obelisk in Central Park, New York, the work of Mr. E. Bierstadt; also a curiosity in the shape of a street view made by moonlight, on a "J. C. B." gelatine plate with a Morrison "B." lens, and an exposure of four and one-half hours.

Mr. Wallace called attention to the efficacy of cyanide of potassium as an agent for reducing the strength of over-printed silver pictures, and recommended im-

mersing the prints in a solution containing one grain of cyanide to three quarts of water until the proper tone was obtained.

Mr. Corlies exhibited an instantaneous picture of the wreck of the steamer "Pliny," near Sea Girt, N. J., which, considering the fact that it was made during the gale while the sky was obscured by heavy clouds, was a wonderful result.

On motion, adjourned.

C. R. PANCOAST,
Secretary.

ASSOCIATION OF OPERATIVE PHOTOGRAPHERS OF NEW YORK.—At the regular meeting held in May, President Atwood presided.

Minutes of last meeting were read and approved.

Mr. Kane read some original poetry, which afforded great amusement for the members.

Mr. Roche exhibited instantaneous dry-plate negatives of Broadway, developed with ferrous oxalate and fixed with hypo. He said that dry-plates were very useful, and that wet-plates were also invaluable for some purposes.

Mr. Coonley said that the views shown by Mr. Roche were very fine, but he preferred wet-plates; he had made four wet-plate negatives while one dry-plate negative was being developed.

Mr. Forbes obtained as good results with wet-plates as with dry; wet plates will beat dry every time if one can get five seconds' exposure.

Mr. Roche said, so far as rapidity is concerned, no wet-plate now made will compete with the gelatino-bromide dry-plate. He could make a negative in one-eighth the time used by any member present; could also cut a plate in halves and make one-half occupy three or four hours in developing, the other three or four minutes.

Mr. Coonley compounded his chemicals according to his own ideas; it takes the one-fortieth part of a second to cover a lens two inches wide in making instantaneous negatives.

Mr. J. T. Taylor exhibited a 10 x 12 instantaneous picture made by Steinheil, of Munich.

Mr. Roche had made hundreds of negatives instantaneously, but that print knocked spots out of anything he ever saw.

Mr. Atwood knew an operator who thought a negative could be built up no matter how short the exposure.

Mr. Roche could make a transparency with a gelatino-bromide plate with the ordinary dark-room light.

Mr. Fields asked, are not dry-plates more sensitive than wet?

Mr. Forbes took two plates—a wet and a dry—exposed and developed them; he secured a negative on his wet-plate and nothing on his dry.

Mr. Coonley, some two or three months ago, covered his dark-room window with ruby paper, and it fogged his plates; he covered it with thick brown paper, and the fog ceased.

Mr. Roche said the paper was not the right color.

Mr. Kane thought the condition of the film had something to do with making the negative, the atoms of matter must be in a certain condition to be acted upon.

Mr. Roche coats a plate in a silver-bath, and exposes to sun-light, it has a fine yellowish or ruby color; now if a gelatine plate is examined by reflected light, it is a pea-green; then hold it for examination by transmitted light, wet your finger and touch the film, you have a rich steel-blue.

Mr. Forbes used green glass for developing, with success.

Mr. Kane used ruby glass; it was suggested to him to use green glass, but he could print under it, so he considered it useless. Pre-exposures were discussed at some length, after which,

Mr. McGeorge alluded to the departure of Mr. J. T. Taylor for Old England, and hoped that Mr. T. would convey our best wishes to our fellow-craftsmen over the big pond, and thanked him in the name of the Association for the interest he had taken, and the assistance rendered to us; wished him a bon voyage and a safe return, which was endorsed by an unanimous vote of thanks being passed with three cheers and a tiger.

Mr. Taylor said he would convey our

kind wishes, and thanked the Association for the courtesy shown him. Adjourned.

T. W. POWER,
Secretary.

The regular monthly meeting was held June 5th, President Atwood in the chair.

The minutes of last meeting were read and approved.

President Atwood handed in his resignation, which was accepted; after which he vacated the chair in favor of Vice-president Forbes.

Three applicants for membership were proposed.

Mr. Kane, Chairman of the Literary Committee, had compiled a very elaborate and interesting paper on the construction of the skylight, which he read to the Association; he also illustrated his remarks by drawing diagrams, on the black-board, of the skylight, explaining the position of the sitter; the best light, height, length, and general dimension necessary to attain the best results; he also had on exhibition one of Hayes' patent lights (a curvature sash). Owing to the length of Mr. Kane's article it could not be finished at this meeting; it will be brought up again at the next discussion meeting, after which he will make a more explanatory report.

A 14 x 17 head of a child was exhibited, made by Mr. Rose, of Galveston, Texas, made in twelve seconds, wet-plate, lens Rapid Rect. Dall., which elicited the admiration of the members.

Mr. Gardner, of the Photographic Section of the American Institute, extended to the Association an invitation to participate in an excursion with them; it was accepted, after which we adjourned.

S. W. POWER,
Secretary.

THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.

ANNUAL EXCURSION, MAY 21-29, 1882.

BY JOHN C. BROWNE.

Looking back to the many pleasant expeditions in which this Society has participated, it is a matter of great satisfaction to refer to the last, as having been the most enjoyable in every respect. From a very

small beginning inaugurated seven years ago, these out-door excursions have grown to be quite extensive in the amount of country travelled over, the last one being a most delightful trip from Philadelphia to Washington, D. C., by rail, then by the Chesapeake and Ohio Canal to Cumberland, Maryland, and home by rail, stopping at Bedford Springs and Huntingdon, embracing a journey of over six hundred miles, and taking a week for its accomplishment. The party consisted of the following members: Messrs. Barrington, Bates, Pancoast, Graff, Corlies, Wood, Samuel Sartain, Walmsley, Fassitt, Zentmayer, McCollin, and Browne, all provided with cameras except Zentmayer and Fassitt. Leaving the depot of the Pennsylvania railroad on the evening of May 21st, the party arrived in Washington early the next morning, and after breakfast proceeded at once to Georgetown, where the steamboat Maryland was found prepared to receive them. The boat was well suited for the purpose, having nice accommodations for the whole party, so that all could sleep on board, and the cabin quite large enough for meals to be served with comfort.

While the boat is being loaded with a small mountain of provisions in boxes and baskets required for the trip, let me hastily make an inventory of the photographic portion of the cargo. The size of cameras range from 9 x 7 as the largest, to 3 x 3 as the smallest; some of English manufacture, but the majority of American construction. The lenses were represented by Ross, Dallmeyer, Steinheil, Morrison, Zentmayer, Darlot, Schnitzer, and Willard, together with many varieties of changing boxes and double-backs, making when deposited in a pile quite a pyramid of photographic implements.

It is a fact worthy of notice, that upon this occasion gelatine dry-plates were used almost entirely, the exception being a few dozen of washed emulsion. Everything being on board the whistle was blown to call in the stragglers, and the boat moved off at a speed of about five miles an hour. Frequent stops were made, and by four o'clock the party arrived at the Falls of the Potomac. The weather commencing

bright and warm changed towards evening to a heavy clouded sky, and by night the rain poured in torrents, but everything was comfortable in the cabin, and next morning being clear, the entire party were out early to obtain pictures of the falls. Comparatively few persons are aware of the wild grandeur of this locality. The Potomac River pours its waters down a considerable descent in a series of rapids, broken frequently by huge masses of rock, resembling somewhat the Rapids of Niagara. The river was very high from recent rains, and the sight was grand when viewed from the overhanging rocks. There is but one method by which moving water can be successfully photographed—that is by the use of instantaneous drops and employing only rapid lenses.

By the aid of these instruments many pleasing pictures were obtained, showing the dashing water and flying spray in motion.

But the whistle of the boat warned the party that time was precious and that we must be moving forward. On Tuesday evening we passed the Point of Rocks, and spent the night opposite to the picturesque town of Harper's Ferry, Virginia. Early next morning cameras were shouldered and the town of Harper's Ferry was visited by the excursionists, wandering up and down its quiet streets and looking with historic interest at the places so often described. In walking about this strange town it is impossible not to recall the terrible scenes that took place in its immediate neighborhood during the late war. Indeed, the country bordering the canal from Georgetown to Cumberland, is a continuous panorama of pleasing views marked everywhere with historic recollections. As our boat drifts slowly along the canal the party is generally to be found on the upper deck, eagerly looking ahead for subjects to be photographed. During portions of the journey, one or more cameras were placed on the bow of the boat arranged with open lens, rapid plates, and drop-shutters. By this means bits of scenery could be captured without stopping the boat or slowing the engine. Many plates were exposed during the day upon various subjects, and quite

late in the evening the boat arrived at Williamsport, where we spent the night. After a pouring rain the next morning opened somewhat foggy, but the sun soon appeared and the party commenced operations, making pictures of the boat with the party assembled on the deck. About noon we arrived at Fort Frederic, Maryland, which is a massive stone fort built by the early settlers of Virginia and Maryland for protection against attack by either French or Indians. It was to this point that General Braddock's defeated army retreated after the battle in which the commander lost his life. Although this fort was built about 130 years ago, the walls are still in good condition. The farm upon which this relic stands is owned by a former slave, but now a prosperous farmer, having a large family and every evidence of comfort about the place. The next point that claimed our attention was a rope-ferry at Hancock. Here many exposures were made, the amiable ferryman together with his passengers, kindly delaying their trip until all had satisfied their desire to photograph the group in every position. Then the rope was adjusted and the boat started across the Potomac, but even then it did not escape, for instantaneous drops were put on the lenses and again the boat was captured in mid-stream.

Towards night the "Maryland" was tied up to the bank of the canal, and the excursionists retired to rest, hoping that the next day would be clear, as one of the principal objects of interest would be passed that afternoon. Greatly to our satisfaction we awoke to find the sun shining brightly, which it continued to do the entire day, so that we had a fine chance to photograph Paw Paw Tunnel. This is a most curious and interesting locality, the canal being cut a distance of about three-quarters of a mile through solid rock. The canal is perfectly straight so that objects can readily be seen at either end. In passing through the tunnel a large locomotive reflector was attached to the bow of our boat, which sent the light far ahead, giving a weird appearance to every surrounding object. At both the entrance and exit from the tunnel the steam-boat, together with the excursionists, was

reproduced in all possible positions, each one of the party taking his shot, and then assisting to make groups for the others. Towards evening we sighted Old Town, which is as its name implies, a very ancient-looking place, but not particularly attractive for pictorial purposes. An old mill, however, received several shots in passing, but the light and situation were against our efforts, so the boat steamed on to Patterson's Creek where we staid all night. During the trip, one of the musical members entertained the party with music from a cornet, the sound being carried a long distance over the quiet water of the canal, and often came echoing back from distant hills in a charming manner. On Saturday we arrived at Cumberland, Maryland, in time to take the afternoon train for Bedford. After an affectionate good-bye to our boat and crew we turned our steps in the direction of the depot, and were soon speeding through a wild country towards our destination.

Bedford Springs are so well known that no description will be attempted in this paper. We enjoyed the novelty of being the only persons in a large hotel, and wandering about the place, which seemed to be deserted. However, we were well taken care of, and enjoyed this experience quite as much as any part of our trip. On Sunday afternoon we started for Huntingdon, arriving there in time to take the evening train for Philadelphia, Monday finding all the party safe home again after their long journey.

We will now consider the photographic results obtained. Gelatine certainly deserves credit for the admirable manner in which it sustained its prestige during the trials of this expedition. Over four hundred gelatine dry-plates were exposed, and it is my pleasant duty as historian to report that but few failures took place when the plates were used by experienced hands. Two years ago during a photographic trip over the Morris Canal by this Society, some gelatine dry-plates were used, but in many cases the results were unsatisfactory. Since that time the power of gelatino-bromide of silver has increased from the strength of a child to that of a giant. It has enabled the

participants in this excursion to make rapid exposures and to obtain subjects that it would have been impossible to do with slow plates. Fancy the novelty and exquisite pleasure of sitting on the bow of a moving boat, with camera adjusted, and being able by simply touching a spring to reproduce an object, almost as satisfactorily as by the old method that required several minutes to effect a proper exposure. This is no flight of fancy, but a matter of everyday occurrence. A few dozen washed emulsion dry-plates were carried by two of the party, and the results they show in time-exposures leave little to be desired in that direction, except regret that greater speed cannot be given to them with perfect safety.

After weeks of preparation the excursion of the Photographic Society has come to an end. We all enjoyed to the full the pleasures experienced during those delightful days of freedom from business cares and responsibilities, and even if we had nothing to show our friends as the pictorial results of the trip, we would be satisfied, but we have had a most enjoyable excursion, and have quantities of good results to show how we passed our time, and what was of interest to us on the way.

At a well-attended meeting of the excursion party held in Philadelphia June 14th, for the purpose of comparing results, it was the general feeling that the work of the members upon this trip was far superior in quality and artistic merit to that exhibited as the result of any former excursion, the small percentage of failures being remarkable, many showing a print for each exposure.

The members were questioned closely as to the time of exposure and development of some particularly attractive picture, and by freely giving all the points that were asked, much was gained in the practical working of gelatine.

ALL photographic books, whether our own publications or not, are supplied at this office, or post-free by mail. A few copies of *Mosaics*, 1882, left. Secure a copy before they are all gone.

PERTAINING TO THE



*To the Editor of the
Philadelphia Photographer :*

LETTERS of inquiry from photographers in all sections of the country indicate much interest in the Association ; a large attendance is already assured. The display of photographs promises to be very large, including some of the finest work of European photographers as well as the productions of the most skilful American photographers. It will be a grand occasion and a rich treat for all who can attend the Convention. President Joshua Smith is industriously working and maturing plans to secure the largest benefits to all who compose the Convention. A number of eminent persons have been engaged to present questions of great interest to the fraternity ; Mr. Charles Aikin, of Evanston, Ill., will give a practical demonstration in open Convention illustrating the production of the gelatine dry-plate. Every session of the Convention will be full of good things for those who are interested in our beautiful art, and who are earnestly striving for higher attainments.

EXHIBITORS

of photographs, whose names should be written by the score, should have their exhibits ready in good time. It is recommended to send them without frames, prepay charges, and send direct to the Secretary, who will take charge of them and place them on the screens in the hall in the most careful manner. See the Manual of the P. A. of A. for 1882.

TRANSPORTATION.

All the railroad lines leading to Indianapolis have agreed to sell round-trip tickets

to delegates, and to all who desire to attend the Convention, at two cents per mile each way. This arrangement covers all lines of railroad from Pittsburg, Buffalo, Cleveland, Detroit, Chicago, St. Louis, Louisville, and all intermediate points to Indianapolis. This was the decision of the Passenger and Ticket Agents' Association of this city in April, and it is presumable that ticket agents at distant places will be governed by general instructions to furnish tickets at above rates to delegates. If, however, ticket agents are not so instructed, send direct to the Secretary of the P. A. of A. for a certificate (enclosing stamp) which will secure the special rate ticket. In sending for certificates, state the number of persons wishing tickets. Rates from more distant places than those named will have to be arranged for with the roads interested.

HOTEL ACCOMMODATIONS.

The hotels are large, and special rates on a very liberal scale have been arranged for delegates. See P. A. of A. Manual for 1882. If you have not received one, send address to the Secretary.

WELCOME TO INDIANAPOLIS!

At a meeting of the photographers of Indianapolis, held at the stock-house of Messrs. H. Lieber & Co., it was unanimously agreed to give the visiting fraternity a hearty welcome. A committee of five live photographers was appointed as a reception committee, who will be in waiting at the depot on arrival of trains ; delegates will recognize members of this committee by a badge worn on the occasion.

BIRD'S TRANSFER OMNIBUS LINE

will carry delegates between the depot and hotels, or Masonic Hall, including baggage, for 25 cents. Information regarding hotels can be had from the Reception Committee and at the Secretary's office at Masonic Hall.

ARE YOUR ANNUAL DUES PAID ?

All members should pay their dues before the end of July, whether they attend the Convention or not.

JOHN CADWALLADER,

Sec. P. A. of A.

EXCURSION EXTRAORDINARY.

Every member of the excursion party of the Chicago delegation to the Photographers' Association of America last year, has no doubt congratulated himself over and over again for having been on that particular train. How quickly the time passed, how good-natured was everybody, how the stream of conversation flowed, and how much of comparing of formulæ and methods of working was indulged in.

Surely nothing but pleasant memories linger around the fast train of last August, G. A. Douglass chief engineer and conductor.

Listen now, therefore, all you who enjoyed that pleasant trip, and you who did not, for another opportunity will be given to you, and see that you make the most of it.

On Monday, the 7th day of next August, another handsomely equipped train will leave Chicago for Indianapolis, carrying the Chicago delegation and all those who wish to join them. Tickets for the round trip will be six dollars, good for several days, and everything will be done to make the journey through the pleasant corn lands of Illinois enjoyable. Now, in order to provide for the correct number, it will be necessary for those that wish to go on that excursion to let the fact be known, and if six dollars be sent to me, a receipt will be returned that will command a ticket upon presentation in August.

Let me hear from you, photographers, both in relation to this excursion and also in relation to your yearly dues, which ought to be forwarded at once.

Our Convention is to be a great one, and not one of you who read this can afford to stay away from it, or hold back the financial support it needs.

Come to Indianapolis; come down with your yearly dues; come with a few good specimens of work; come prepared to have the best time of your life; and every officer and fellow-member will be prepared next August to bid you welcome.

Sincerely,

J. E. BEEBE,

229 Indiana Avenue, Chicago, Ill.
CHICAGO, June 19th, 1882.

WE have received a circular from Messrs. Allen Brothers, 14 and 16 East Larned St., Detroit, stating that they have made an arrangement with the Wabash Railway, by which all who desire to attend the Convention can do so for eight dollars and twenty-five cents for the round trip from Detroit to Indianapolis and return. The tickets are good for thirty days.

EDWARD L. WILSON.

DEAR SIR: Enclosed please find card with photograph. I send this as my idea of a card for members of the Photographers' Association of America to have at our next meeting at Indianapolis. While attending the Association at New York, I received in exchange about one hundred cards, and I often hear their names spoken of since, but cannot remember their looks. Now I simply make this as a suggestion; if you see fit to mention it in your widely circulated journal, well and good.

Yours respectfully,

FRANK A. PLACE.

WARSAW, IND., June 3, 1882.

[The card referred to is the length of an ordinary carte-de-visite and about half the breadth. It contains the name and address at one end, and portrait at the other. The idea is a good one, and we hope that it will be adopted by those who promise themselves the pleasure of a visit to Indianapolis in August.—ED. P. P.]

A NOTE FROM THE PRESIDENT.

KNOW ye, Sir Knights of the Camera, that the Annual Convention of the Photographers' Association of America will be held at "Masonic Hall," in the City of Indianapolis, Ind., on the 8th of August next.

This Convention will be the largest ever held by any Photographic Association in the world; the officers are in constant receipt of letters from all parts of the country and Europe, giving ample proof of the enthusiasm this Association is creating amongst the craft.

During the last thirty days nearly fifty new members have been added; let this good work go on, and we shall have, when this Association meets, a membership of over "one thousand" strong. This will place "our" Association pre-eminent over all pho-

tographic associations. Therefore, brother photographers, let every one put his shoulder to this "Association Wheel," and we will roll it into Masonic Hall in style. Let every member so regulate his business that he can be there and answer to the great roll call.

Questions of great importance will come before this Association, and you will reap a rich reward in knowledge for the money expended. The gelatine dry process will be largely discussed, and Mr. Charles Aiken, of Evanston, Ill., will give you a practical illustration in open convention, viz.: How to make your own dry plates. The various dry-plate manufacturers will be represented and show their *modus operandi* of development by the alkaline pyro and ferrous oxalate. Everything of interest will be brought before the Association to make the meetings instructive to all thirsting after knowledge—make ready then and come.

JOSHUA SMITH,
President P. A. of A.

A GOOD SUGGESTION.

I have a suggestion to make which, I think, will greatly increase the interest and number in attendance at the next annual meeting of the Photographers' Association at Indianapolis. It is this: let the local secretary be authorized to have fitted-up a *model dry-plate manufactory* (on a small scale), just such as the average photographer would require in the manufacture of his own plates, fitted with all necessary apparatus and appliances for the completion of the plates ready for use; also that he be authorized to secure the services of a first-class manufacturer of plates, whose duty it will be to be on hand to give instructions in the manufacture of plates to the members of the Convention, in such a manner as the Convention may direct. As it would be impossible to instruct the membership in a body, I would suggest that tickets of admission be given to each member, and a certain number be admitted at a time, until all had seen it demonstrated and received the instructions.

Now I have given you an outline of my idea; if you will put it in the proper shape, and publish it in your journal, calling for subscriptions to defray the expenses of same,

I do not think you will have any trouble in securing even more cash than necessary for it; and I am satisfied it will ensure the largest attendance ever had at any previous Convention.

I have only mentioned the matter to two parties, both of whom said they had not intended to attend, but if it was carried out they would not only be on hand, but would gladly pay five dollars each to defray expenses of same. I will subscribe five dollars, and more if necessary.

Please consider the suggestion and let me know what you think of it. If you think favorably of it, put the *ball* in motion.

C. W. MOTES.

ATLANTA, GA., July 21st, 1882.

We think well of Mr. Motes' suggestion, and hope Secretary Beebe will receive the money and work up the case.

STICK TOGETHER.

BY EDWARD L. WILSON.

As a rule, a man of energy can carry out almost any desired project, provided he wants to very much. If he has no definite plan in view, but beats about, to and fro, aimlessly, no matter how much energy and effort he exercises, he is not apt to produce anything very useful to himself or to any one else, unless by the sheerest accident.

The first thing, then, is to *know what you want*, the second to *know that you know it*, and the third is to bend your energies to accomplish it. The fourth is to enjoy the sure fruit of your labors.

I have watched with a great deal of interest the birth and growth of the last effort to create and forward a national organization of photographers in the United States, and I have seen a great deal of the effort made to secure such an organization fall uselessly to the ground. I could see plainly that an earnest few—clear-headed and hard-working men and women—who could see the advantages of coming together in convention and gathering from it the well-known lessons and helps always obtainable by any fraternity thus coming into contact with each other, were anxious to organize. I could also see a great many others joining

them with some sort of a vague idea that some good was to come to them out of it all, but without any particular earnestness or ideas in the matter, except to stand ready to "grab" whatsoever came along—without feeling any particular want of anything. I could see, too, that this want of unity of purpose would disturb, annul, and kill any effort made by the few. And, what seemed most fatal of all, was a disposition on the part of many, at the very birth of the project, to prevent a national organization. They did not want it. They did not know particularly what they did want. They had not given that subject very much thought. But the one thing they did not want was a national organization composed of all those whose interest it is to see our art grow and flourish and prosper. I form my judgment, of course, from what I thought I saw and from what I read from time to time.

Moreover, while I have no disposition to criticize, but only to offer a kindly suggestion, based upon a sincere wish for the good of the whole fraternity, there has been a lack of understanding on the part of the most earnest of us—for I presume to include myself among this number—as to what sort of an organization we should have. I tried to give vent to some of my ideas on this matter at Chicago in 1880, and warned my co-workers there against certain projects under way, but I was overruled by them; their plans were followed, and, as our New York Convention has proven, we have not derived one-fifth the benefit possible from the money spent and efforts made that we should have done. There was the skeleton in New York for the grandest, most practically useful gathering of photographers ever held, but instead of putting flesh upon the bones, the poor frame was shaken up and oxidized until it became even weaker than when it first saw the light. And now, away up here on the Nile steamer, while our bulky boat is aground on a sand-bar, a little postal steamer comes puffing along, halts, and throws us a mail aboard. In it comes to me a copy of the January issue of the *St. Louis Practical Photographer*. On page seventeen I find a communication from one of the earnest ones which is absolute heresy.

It comes from a man, too, with whom I am friendly enough to say he ought to know better. He writes to Father Fitzgibbon, whom I am sure does not indorse him: "Now, Mr. Editor, there is evidently nothing to hope for from the East, and the P. A. of A. might as well make up its mind to remain a Western institution." Why this dismal prophecy? Why this unkind thrust at the life of the P. A. of A.? I share Mr. Bachrach's admiration of the advance of "the West" in society matters, but I hope he may be proven a false prophet in his prediction concerning the P. A. of A. "The West" cannot manage a national association alone. It can doubtless manage an association alone, probably better than "the East" could, but it does not hold within itself all the elements which are needful to make up an association that will represent all the interests of American photographers. We must—East and West, North and South—stick together. The moment anything else is advocated at the meetings of the P. A. of A., that moment the P. A. of A. loses ground.

Let this be the war cry at Indianapolis in August (I hope to be there to add to its volume). Then let us consider, carefully and wisely, if there is not some way of getting more advantage from the effort and money expended each year. Then, as to this, permit a suggestion, and I am done. I have always considered it a mistake for our conventions to be held in our larger cities, and another mistake to move about from place to place. I gave my reasons at Chicago for opposing New York as a place of meeting in 1881. The same arguments hold good as against any place where there are too many diversions from the real earnest work of the convention. Each year a certain line of expenses for carpenter work and other arrangements must be incurred, when such in a number of years would do and more money be left for procuring apparatus, lectures, etc.

Plan: Select one good place, on the lake-side, at the sea-shore or in the mountains, central, and there meet from year to year. Erect a pavilion, a skylight, and appurtenances, and then it is always ready for our use. Add to its properties as the funds will

allow; let such as are willing allow their exhibits to stand. Make a national gallery of it; a grand photographic Mecca; a head-centre—useful, practical, never ending in the good it will do. Enough money has been wasted to do it twice or thrice. But, pending all this—which is coming—*stick together*.—June *Photographic Times*.

OUR PICTURE.

THE pictures for our current number have been kindly supplied by Mr. J. H. Lamson, of Portland, Me., from seven different negatives. Inasmuch as these are printed from so many negatives, and embrace such a variety of subjects, it will be difficult to write at length concerning them. Mr. Lamson is one of our oldest photographers, and has often supplied us with pictures for our journal before. Both Mr. Lamson and his subjects have done their best to give pleasant studies for photographers, which will, doubtless, be appreciated. We have no formula of his methods, but presume he has followed the directions given in the "old, old story."

We would be glad if more of our friends would kindly respond to our request, so often made, by sending us negatives for pictures for the *Philadelphia Photographer*, as at present we are short of subjects. Many of our co-workers produce excellent examples of work, which are well worthy of this honored position in our journal, and would be of great value as studies for those who are not so far advanced.

GERMAN CORRESPONDENCE.

On the Keeping Qualities of Gelatine Plates Again—Eder's New Formula for Intensifying—Reducing the Intensity of Gelatine Plates—Oxalate Developer Preserved Under Olive Oil—The Different Modifications of Bromide and Chloride of Silver in Collodion and Gelatine Plates.

RECENTLY I again had occasion to examine, at the studio of a practical photographer, the gelatine plates made by him a year ago, and the result was no better than that reported in my last letter. Some of the plates had become yellow, no doubt

owing to defective washing, and others had become totally spoilt, *i. e.*, turned dark in color, so that it was impossible to make prints from them.

Upon closer examination it was found that all the *intensified* negatives had gone in that way. In all cases the mercury intensifier had been employed. Now it has long been known that negatives intensified with mercury are sensitive to light; but this sensitiveness is much less injurious than the decomposition which takes place in the dark, and which phenomenon has not yet received the close chemical investigation that it demands. In all probability the great difficulty of washing the gelatine negative free from all chemicals, is the real cause of this decomposition.

Mr. Prümm here looks upon almost all intensified gelatine negatives as eventually lost; in every case, however, the silver re-developer (described in my last letter) is far preferable.

A few days ago Prof. Eder gave me the following new formula for a mercury intensifier, which is very interesting, but whether the negatives produced by it are any more permanent than those by the old method, remains to be seen. Intensify as usual with bichloride of mercury, wash the plate, and pour over it the following solution:

Water,	1000 parts.
Cyanide of Potassium,	5 "
Iodide of Potassium,	2½ "
Bichloride of Mercury,	2½ "

The intensification takes place in three stages: 1. The negative turns yellow, and is yet pretty soft. 2. The color becomes gradually coffee or chocolate-brown; after continued action of the intensifier, the plate appears very strong, and can be washed at any minute, by which the intensification is stopped. 3. The negative weakens again slowly without losing any details, by which any over-intensification can be modified. I have tested this intensifier and found it excellent.

Circumstances arise where a reliable method of weakening the negative, when it is too strong, is just as desirable for intensifying. Mr. Prümm recommends

the following formula, and gives it his highest approval:

Sulphate of Copper, . . .	1 part.
Common Salt, . . .	3 "
Water, . . .	10 "

When about to be used, dilute with eight to ten times its volume of water; place in the plate; after having become sufficiently softened wash the plate, put it in the fixing soda, and wash well afterwards.

Of late the ferrous oxalate developer, which is kept under oil, has come much into favor. The developer is mixed in advance, put in a dipping-bath, and olive oil is poured over the top of it. The plates before being immersed in the developer must be washed five minutes under water, as otherwise slight spots appear owing to the adherence of the oil. The other day Mr. Schaarwächter reported the results of his experiments in developing gelatine plates with the oxalate developer. After standing two weeks under oil, the developer had not changed at all, and developed a plate perfectly normal.

Much has been already written about bromide of silver in gelatine emulsions, in regard to its sensitiveness to light, but there are some obscure points which have been only recently cleared up. A number of my own experiments in spectral analysis, made for this purpose, have helped the matter.

I have tested bromide of silver prepared in many different ways, also chloride of silver, with the following results: 1. Bromide of silver in collodion, whether prepared as emulsion, or in the bath, whether with excess of nitrate of silver or bromide of potassium, whether exposed wet in presence of excess of nitrate of silver, or dry, will show the maximum of sensitiveness near the Fraunhofer line G of the solar spectrum. 2. Bromide of silver formed in gelatine solutions, whether boiled or not boiled, digested or not digested, shows the highest degree of sensitiveness to the spectrum at spiral length 450. The sensitiveness is about equal from spiral length 420-460. Variations are, however, possible. The boiling, digesting, and treating with ammonia, produces upon the gelatine emulsion only the effect that (as it has been

stated already by Mauchhoven) its sensitiveness towards blue and the other color lines, violet, ultra-violet, and green to red, increases materially (for the feebly refrangible rays in a more moderate degree). 3. Gelatino-bromide of silver in my own emulsion (containing glacial acetic acid and pyroxyline) shows the maximum sensitiveness at almost the same point as plain gelatine emulsion, only a little nearer F., at about wave-length 460; but at the same time, an increased sensitiveness for green, verging towards red, is manifested—a proof that the composition of the sensitive film often has great influence upon its capability of being impressed by the various colors. 4. Collodio-bromide of silver undergoes no material change if treated with a solution of gelatine in glacial acetic acid. 5. The so-called green bromide of silver, obtained in collodion emulsion, by adding ammonia or by precipitating bromide of potassium in collodion with ammonio-nitrate of silver, is not identical with the green bromide of silver of the ripe gelatine emulsion, but acts, as regards sensitiveness to color, in a manner similar to the common collodion, bromide of silver emulsion, *i. e.*, the maximum is at G. The picture layer cannot be the cause of the difference, as shown in No. 4. 6. Collodio-chloride of silver, whether formed as emulsion or in the bath, and whether exposed wet or dry, shows the maximum of sensitiveness in the violet, namely, at wave-length 410. (For variations see below.) 7. Gelatino-chloride emulsion, prepared by Eder's formula, shows the highest sensitiveness near the two lines H (Fraunhofer), and remains pretty equal between wave-lengths 309 to 403. 8. Considering that the nomenclature of the bromide of silver, based upon the color (white or green), or even upon the colors in transparency (Abney speaks of orange-colored bromide of silver in collodion and gelatine), does not give any clew at all to its real nature, the more so as excess of bromide of potassium or silver modifies the color. I name the bromide of the gelatine emulsion, after the point of its maximum sensitiveness to the spectrum, sensitive-to-blue bromide of silver, and that of the collodion emulsion, sensitive-to-indigo bromide of silver.

We may thus make the following distinctions in bromide of silver:

1. Of that which is sensitive to blue light, we have (*a*) the strong, and (*b*) the weak; the former appearing in a gelatine emulsion fully ripe, and the latter in an emulsion freshly prepared.

2. Of that sensitive to indigo-colored light, likewise (*a*) the strong, and (*b*) the weak; the former appearing in a collodion emulsion treated with ammonia or excess of nitrate of silver, and the latter in ordinary emulsions.

I distinguish also between chloride of silver sensitive to violet, and chloride of silver sensitive to ultra-violet (the first in collodion, the latter in gelatine emulsion). The striking differences in sensitiveness of the silver salts to the spectrum, which are especially observed in chloride of silver, have their reason in the variations in the chemical intensity of the different colors according to the clearness of the atmosphere.

The above experiments as to the sensitiveness of the several preparations were always made by way of comparison, as the several plates were exposed side by side, or one after the other.

Yours truly,

DR. H. W. VOGEL.

BERLIN, May 31, 1882.

FRENCH CORRESPONDENCE.

Organization of the Committee for the Poitevin Subscription—Patented Processes for the Direct Reproduction of Black Lines on a White Ground: the Renet Method—Competition for the General Use of Gaiillard Prize: Pellicular Clichés—Gelatinobromide in Paris as was seen by Mr. Edward L. Wilson—International Exhibition of Photography for the Month of August, 1882.

THE committee for the subscription having for its object the erection of a monument to the memory of Poitevin, has been definitely formed. It is composed of members of the Photographic Society and of members of the Syndical Chamber of Photography, as follows: Messrs. Davanne, President; Lévy, Vice-President; Londe, Secretary; Léon Vidal, Treasurer; Audouin, Michel Berthaud, Guillemot,

Stebbing, Thouronde, and De Villecholle, Directors.

The committee has issued a circular which is to be sent throughout the world to all those who use the processes discovered by Poitevin, and who consequently are able to appreciate the utility of his splendid discoveries, which were of so little profit to him personally.

The committee has decided to appoint in every important centre correspondents of well-established position, and whose assistance will be useful in its work of gratitude. The object is not to collect large sums, but to obtain by numerous contributions an earnest homage to the memory of the scientist who has rendered such great services to the graphic arts.

We indulge in the hope that our estimable colleagues of America will assist us in our undertaking, as we would be happy to do for them should they have occasion to need our help. Without casting aside our nationalities, for all should love the mother country, we must admit, however, that arts and sciences are not limited by frontiers. An American scientist renders services to French industry, and the French inventor, as well, becomes a benefactor of American industry. We must, therefore, set aside any question of a national order if we have to honor our scientists, whatever may be their origin. They belong to the whole world, and that is why we address ourselves to the whole world in favor of the glorious follower of Niépce, Daguerre, and Talbot. We beg our readers, therefore, to send their subscriptions, however small they may be, to the honorable director of the PHILADELPHIA PHOTOGRAPHER, Mr. Wilson, who will be kind enough to transmit them to the Paris committee, of which he is naturally a duly qualified corresponding member. On our part, we will keep the readers of this journal well informed in everything pertaining to this subscription.

One of the principal desires of those seeking a reproducing process, where a positive is printed by means of a positive, is to find a plan of direct printing by light of black lines on a white ground. We know that this result has already been obtained by using paper with cyanoferride and with

perchloride of iron. But the first of these papers gives blue lines upon a white ground; the other produces gallate of iron prints, the color of which is more of a violet tint than black. We have again the artigué process, which is nothing more than printing in carbon, but this process requires from the very start the making of a negative from the original drawing, then from this negative are obtained prints formed by the carbon imprisoned in the coagulated albumen, and whose lines of a certain degree of durability are in reality black on a white ground. The ideal is to arrive at a similar result, but more directly by obtaining the positive from the drawing which itself is used as a cliché. Among the last patents that we have examined, we find the specifications of two different processes, each having for its object the obtaining of the desired result. Mr. Eugene Renet sought for a body which, in combination with perchloride of iron, would give a black color. He has found it, he says, by utilizing the property possessed by iodine of being precipitated from its combinations with the different bases by the salts of iron, acidulated with an excess of hydrochloric acid. The iodides in presence of chloride of iron are decomposed and form a protoiodide of iron of a brown color and volatile, whilst the protochloride of iron produces no reactions on the iodides. If we cover an exposed sheet with a solution of iodide of potassium or sodium, at four per cent., the iodide is only decomposed in the presence of the non-exposed portions—that is to say of those that have been protected from the light by the lines of the drawing. These portions appear of a brownish-black.

Here is the preparation of the paper with perchloride of iron for the application of this process: Take 10 cc. (2 fl.dr. 42 min.) of powdered starch, which place in 80 cc. (2 fl.oz., 5 drs., 38 min.) of water, and heat until completely dissolved.

For 50 cc. (1 fl.oz., 5 drs., 31 min.) of this cooked starch add:

Perchloride of Iron, . . .	5 cc. (1 fl.dr., 21 m.)
Hydrochloric Acid, . . .	10 " (2 fl.dr., 42 m.)
Oxalic Acid, . . .	5 " (1 fl.dr., 21 m.)
Concentrated Solution of Gum Arabic, or . . .	15 " (4 fl.dr.)
Dry Gum Arabic, . . .	10 grs. (2 drs., 34½ grs.)

The starch is used to produce the well-known reaction of the iodine. When the iodide is spread upon the paper prepared with perchloride of iron and exposed, the perchloride decomposes the iodine and forms protiodide of iron, which is decomposed by the starch, and we have an iodide of starch, which is stable. The starch is therefore what fixes the print, which appears in strong and permanent black lines. After having spread the iodine over the paper, and when the lines come out well in black, the print is to be washed to free it from the iodide of potassium in excess.

The use of gelatine processes is becoming more and more general. Our esteemed colleague and friend, Mr. Wilson, has seen it in the voyage he has just accomplished, and especially in the visits made by him to divers photographers in Paris, among whom we may mention Messrs. Nadar, Walery, Liébert, and Benque, who all told him in our presence that they now use no other than the gelatine plates.

It is not for us to trespass on the accounts that Mr. Wilson may give of his visit to Paris, where we were most happy to see him, and to pass some pleasant moments in his company. We simply wish to state the fact, of which he was a witness, that our principal and most important photographers have given up wet collodion and constantly use gelatine plates.

This progress does not go back very far. Quite recently photographers said that they used wet collodion and but seldom had recourse to gelatine. To-day, nobody speaks about wet collodion.

The photographic exhibition which is to open in the month of August at the Palais de l'Industrie, promises to be very interesting. Already a large portion of the available space has been engaged. We advise, therefore, those persons who wish to exhibit to send their address, or rather their request, to the photographic committee, No. 20 Rue Louis le Grand, at Paris. This exhibition, as we have already said, will be international.

LEON VIDAL.

PARIS, June 1, 1882.

READ our advertising pages.

Editor's Table.

HOME AGAIN.—The editor of this magazine is glad to say that he is back at his desk with renewed health and vigor and vim for his work, having arrived in Philadelphia on the 21st of June, in the steamer "Illinois," just in time to see the closing of this issue. He begs the indulgence of all those who are waiting for attention to their communications, and promises that all shall be remembered soon. He begs also to thank kind friends for the congratulations found awaiting his return.

MESSEERS. WILSON, HOOD & Co., the well-known stock-dealers of this city, have just completed a very convenient dark-room for the development and changing of gelatine plates, in the rear of their establishment in Arch Street.

MR. J. M. DAVISON, of Sulphur Springs, Texas, writes to us as follows: "My success so far is due more to the photographic literature I have from time to time purchased from you, than from any personal instruction, as I have received comparatively none except what I studied out of books.

"There is one rule I have adopted and tried to carry out, and that is, invariably try to make my last work the best.

"You may always consider me as a subscriber to your very valuable journal, of which I own to-day every volume except the first—not that I have been in the business that long, but have bought them so that I might know more of the history of the art."

THE *Sulphur Springs Gazette*, and *Hopkins County Echo*, contain very commendatory notices of MR. DAVISON'S gallery and work. His letter also encloses some highly creditable *cartes*.

THE Biddeford, Me., *Weekly Times* contains a commendatory notice of MR. E. E. SAWTELLE'S studio in that city, special mention being made of a number of his fine new backgrounds.

THE *Bureau of Information and Catalogue of Supplies* issued by DOUGLASS, THOMPSON & Co., 229 and 231 State Street, Chicago, have just reached us. They contain full lists of all the necessaries for dry-plate field-work, and much useful matter generally.

WE have received a new list of the works devoted to photography, published by MR. E. LIESEGANG, in Düsseldorf, Germany. It is a

very complete one, and contains treatises on gelatino-bromide, enamelling, the ferro-cyanide blue process, carbon printing, etc., as well as translations of such well-known standards as HARDWICH'S *Photographic Chemistry*, and RUSSELL'S *Tannin Process*.

WE have also received the prospectus of the Leipzig School of Retouching, an institution where every kind of positive and negative retouching, and drawing and tinting in all their applications to photography, are the specialties of instruction. A well-arranged photographic laboratory for the use of the pupils is also connected with this establishment, where the terms for tuition are extremely moderate.

MESSEERS. NORTH & OSWALD, Toledo, Ohio, have dissolved partnership, and MR. NORTH continues the business.

MR. CHARLES E. EMERY, Silver Cliff, Colorado, has renovated his studio, and the city newspaper favors him with a very complimentary notice.

MESSEERS. PARK & Co., Brantford, Ontario, are given nearly a column by the *Daily Courier*, describing their studio, recently enlarged and improved.

A. J. W. COPELIN, of 237 Dearborn Street, Chicago, Ill., has opened a photographic gallery as above, devoted entirely to commercial business, and will make a specialty of photographing furniture, machinery, agricultural and musical instruments, etc., which is an indication of deserved prosperity.

THE Indianapolis Convention promises to be a very creditable affair, and the attendance large. Be sure you go and do all you can for it.

WE have received from TUTTLE & Co., Melbourne, Australia, some very fine examples of their work in the way of boudoir portraits, which we value very highly for two reasons: First, on account of the excellence of the work, and, second, for the kindly feelings which prompted the sending of them from so great a distance. The pictures sent are of actors and actresses, very artistically posed, and are specimens of fine merit. We congratulate our friends of the Sea on being able to produce such excellent work.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

Ye Monthly Bulletin
of L. W. Seavey's Worksh.
No. 8 Lafayette Place N. Y.

SUMMER BACKGROUNDS.

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 No. 470. "Under the Trees."
 No. 473. The Hillside.
 No. 474. Mirror Lake.

SUMMER ACCESSORIES.

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 FLOOR-CLOTHS.

- No. 479 is a new Balustrade, Octagon Base, modern Grecian in design.
 No. 480 is a richly decorated Vase, suitable for use with any of our Balustrades.

See last month's advertisement.

No. 483 (June 10th),

THE PONY BASKET PHAETON.

With whip and reins, seat and foot-rest complete for use. Simple, yet wonderfully realistic.

FOR SALE.—Photograph gallery in Denver, Colorado. The best location in the city. Light considered excellent. Instruments and accessories suitable to make first-class work. Price, \$1500. Reasons for selling satisfactory. For full particulars, call on or address

F. D. STORM, Photographer,
 Cor. Larimer and 15th St.,
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Address S. A. C.,
 Box 7, Wellsboro, Tioga Co., Pa.

WANTED.—A 1-3 size Willard Portrait Lens. Address, stating price,

S. C., JR.,
 P. O. Box 2797, Philada., Pa.

FOR SALE.—Portable house, with part of outfit, for \$100; in eastern Iowa.

Address H. E. N.,
 Care Douglass, Thompson & Co.,
 Chicago, Ill.

FOR SALE.—One Woodward patent solar camera, good as new; used but a few months; compelled to sell for want of room to use it. For particulars, address

FRANK KNECHT,
 354 Northampton St.,
 Easton, Pa.

WANTED IMMEDIATELY.—A first-class retoucher, who can assist in operating occasionally; must be A 1. Address at once, with samples of work and wages expected,

F. C. WESTON,
 Bangor, Me.

THE NEW
EURYSCOPE.

TRY this new lens, and you will never buy any large portrait lenses. Voigtlander & Son's No. 7, and the smaller sizes, are very quick-acting, but as regards large-sized plates, the Euryscopes are far superior for groups, panel pictures, and large heads.



WILSON'S PHOTOGRAPHICS

Is the most complete, thorough, photo-instruction book ever published. Second thousand in store. See advertisements. \$4.

NOTICE OF REMOVAL.—Mrs. Clarke, Artist, late of 561 Druid Hill Avenue, Baltimore, begs to inform her friends and the photographic profession that she has removed to 2104 North 20th St., Philadelphia, Pa., where she will be happy to receive any commission for water-color painting. Terms, etc., on application to Mrs. Clarke, or to the office of the *Philadelphia Photographer*.

S. G. NIXON, Portrait Artist, 813 Arch Street, Philadelphia, Pa. Solar enlargements finished in crayon, water color, and Indian-ink in true artistic style, and the likeness and expression faithfully preserved. Also small colored and Indian-ink work, etc. Terms moderate.

MAKE YOUR OWN ENLARGEMENTS.—The Patent Gem Solar Camera will print the finest enlargements on albumen, platinum, or plain paper. Only \$60. Send for reduced price-lists of larger instruments. D. A. WOODWARD,

Baltimore, Md.

**Wilson's Photographics. Ready.
Price, \$4.00.**

NOTICE.

THE WONDERFUL EURYSCOPES and NEW PORTRAIT LENSES.

Just received, a large invoice of the above Lenses. Those who have not succeeded in getting them, will do well to send in their orders at once.

BENJAMIN FRENCH & Co.,
Boston.

**Wilson's Photographics. Ready.
Price, \$4.00.**



WILSON'S PHOTOGRAPHICS

Shows you how to group and pose children naturally and gives fine examples of work. Read the partial index herein. \$4.

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A RARE CHANCE TO LEARN SHORT-HAND.—Rowell & Hiccox, the publishers of the *American Short-hand Writer*, have opened the most complete school of short-hand in the United States at Boston, Mass.

For \$1.50 they will send this year's volume of their magazine, containing a full course in phonography, and correct the lesson exercises of all subscribers by mail, free. This offer holds good until January 1st, when the price of subscription is to be advanced to \$2.50. When the fact is known that a full course of instruction taken at their school in Boston costs \$75, the rare chance afforded by this extraordinary offer may be realized. Short-hand clerks, not expert, command a salary of \$75 a month upwards, while the standard prices paid for law reporting is \$10 a day. Why not get up a class in phonography here to learn through this medium? We will head the list ourselves, and receive and forward subscriptions for the *Short-hand Writer*.

DECEMBER 1st, 1881.

No. 18. VIGNETTE PAPERS, **No. 18.**
WAYMOUTH'S.

The old form of No. 18, Waymouth's Vignette Papers, oval, has been discarded, and a *new pear-shaped* style is now ready in its place. It is a beautiful piece of gradation and prints perfectly. Price \$1.25 per dozen. For sale by all dealers. See advertisement.

No. 18. NOW READY. **No. 18.**

GIHON'S OPAQUE.—As a rule, photographers are familiar with this most convenient article of gallery use, but, doubtless, there are some who still are unacquainted with it. It is just what it claims to be, and so announces on the wrapper of each box: "A dense, non-actinic paint, for stopping out imperfect backgrounds, or defective skies in negatives, for coating the inside of lenses or other brass work, etc." It is an invaluable article, and should have a place in every photographic establishment in the country, whether large or small. A photographer lately remarked to us, "GIHON'S Opaque is worth its weight in gold." This sounds rather exaggerated, as a cake of the compound is quite large, and of some weight; still it is most valuable, and its place can be filled by no other article now in the market.

That Opaque is very generally used, and that its use is daily growing was proved to us on a recent visit to New York. In the store of SCOVILL MANUFACTURING COMPANY, we noticed a large pile of these neat little packages, and on inquiry were assured that the demand was very large, and steadily increasing.

To those who have not tried opaque, we would say, send fifty cents to your stock-dealer and get a cake. You will wonder how you ever got along without it. Sold by all dealers.



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DEVOTES 58 pages to instructions in posing and lighting the figure. See advertisements. \$4.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

As retoucher, by a lady; can attend reception room, finish prints; also a fair printer. Samples sent if desired. Minnie Weston, Gouverneur, New York.

In a strictly first-class gallery, by a young man, as retoucher. References exchanged. Address Retoucher, Box 446, Dayton, O.

As retoucher, will assist or oversee printing; thoroughly experienced. Near Pittsburg preferred; no dark-room work. Address H. P. Harvey, 282 Fifth Avenue, Pittsburg, Pa.

A printer and toner. Fair retoucher, with some knowledge of operating, desires a situation, with a chance to improve. References furnished. Address J. T. Barry, Oxford, Chester Co., Pa.

A lady of ten years' experience would like a position in photo-rooms to attend reception-room or finish negatives. Is competent of taking full charge of the business. Boston reference. Address, care Judson S. Wright, Tully, Onondaga Co., N. Y.

J. L. CLARK,
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 Silvering the Albumen Paper.
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 Fuming the Paper.
 Preservation of Sensitive Albumenized Paper; Washed Sensitive Paper.
 Cutting the Paper.
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 Keeping Tally.
 Vignette Printing-blocks.
 Treatment of Negatives before Filling of the Boards. [Printing.
 Fitting Vignette-boards to the Negatives for Printing.
 Medallion and Arch-top Printing.
 Fancy Printing.
 Vignette Cameo and Medallion Vignette Cameo Printing.
 Printing the Bendann Backgrounds.

CONTENTS.

Printing Intense Negatives.
 Printing Weak Negatives.
 A Few More Remarks about Printing--Treatment of Broken Negatives.
 Cutting the Prints.
 Washing the Prints.
 Acidifying the Prints.
 Toning Baths.
 Artistic Toning.
 Fixing Baths and Fixing Prints.
 Washing the Prints.
 Mounting the Prints.
 Finishing the Prints.
 Salting the Paper. [Paper.
 Positive Baths for Plain Salted Silvering Plain Salted Paper.
 Drying, Fuming, and Cutting the Paper. [Printing.
 Treatment of the Negatives before Printing-in False Backgrounds.
 General Plain Paper Printing.

Waymouth's Vignette Papers.
 Further Treatment of the Prints after Printing.
 Causes of Failures in Albumen and Plain Paper Printing.
 Selection of the Porcelain Plates.
 Cleaning the Porcelain Plates.
 Albumenizing the Porcelain Plate
 Making the Porcelain Collodion.
 Coating, Fuming, and Drying the Plates.
 Porcelain Printing-boards.
 Placing the Sensitive Plate on the Board for Printing.
 Printing Vignette Porcelains.
 Printing Medallion Porcelains.
 Washing the Porcelains.
 Toning the Porcelains.
 Fixing the Porcelains.
 Final Washing of the Porcelains.
 Drying and Tinting the Porcelains
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CONTENTS.

CHAP.	CHAP.
I. Introductory.	XVII. Portraiture.
II. The Faculty of Artistic Sight.	XVIII. Portraiture—The Management of the Sitter.
III. Balance of Lines and Contrast.	XIX. Portraiture—The Pose.
IV. Balance—Example.	XX. Portraiture—Groups—Proportion.
V. Balance—Examples—(continued).	XXI. Backgrounds.
VI. Unity.	XXII. Accessories.
VII. Examples—Expression.	XXIII. Some Old Notions Touching Portraiture.
VIII. Practice—The Choice of a Subject.	XXIV. Chiaro-oscuro.
IX. Simple Rules.	XXV. Chiaro-oscuro—Detail or Definition.
X. Figures in Landscape—Truth.	XXVI. Chiaro-oscuro—Various Arrangements of Light and Shade.
XI. The Sky.	XXVII. Chiaro-oscuro—Various Arrangements of Light and Shade (continued).
XII. The Legitimacy of Skies in Photographs.	XXVIII. Chiaro-oscuro—Breadth.
XIII. The Composition of the Figure.	XXIX. Chiaro-oscuro—Portraiture—The Studio.
XIV. Pyramidal Forms.	XXX. Chiaro-oscuro—General Considerations.
XV. Variety and Repetition.	XXXI. Conclusion.
XVI. Variety and Repetition (continued)—Repose—Fitness.	

No one can study this excellent work without being better able to pose and compose his subjects, and to light them more artistically. Those who are unskilled comparatively, hardly realize how much there is to learn that is of value to them. This book will open their eyes and enlighten them, if they can but see when their eyes are open.

**IT IS THE MOST POPULAR PHOTO. WORK EVER PUBLISHED IN EUROPE.
IT IS THE BOOK WANTED NOW BY THE AMERICAN PHOTOGRAPHER, TO POST
HIM ON THE ART OF PHOTOGRAPHY.**

Cloth, \$1.50; Paper, \$1.00. Illustrated.

WHAT ITS READERS SAY:

"Mr. H. P. Robinson's *Pictorial Effect in Photography* is a gem, the par excellence of all photographic books. Its pages are full to a letter of choice and valuable instruction. If there is one who has not read it I would advise him to do so at once."
—G. F. E. PEARSALL, Brooklyn, N. Y.

"*Pictorial Effect* is a success."
—M. H. ALBEE,
Marlboro, Mass.

"I would advise all photographic art students to obtain a copy of Mr. H. P. Robinson's *Pictorial Effect in Photography*, one of the best and most complete works ever published on the subject for the benefit of photographers. Read it over and over. Every page teaches a grand lesson."
—JAMES MULLEN, Lexington, Kentucky.

EDWARD L. WILSON, Publisher, 912 & 914 Chestnut St., Philada.

THE PHOTOGRAPHER TO HIS PATRONS

Is a neat little leaflet of twelve pages of the size of the four pages below. It tells your patrons what you want them to see on **Photography as an Art; When to Come; How to Come; How to Dress; How to Behave; and about Children, Business, Frames, Copying, Coloring, and Prices.**

"THERE'S MILLIONS IN IT."

PHOTOGRAPHERS OF AMERICA:

In these times of competition we all want something to *stir up business*. It is believed that no means of advertising, half so good, was ever offered to photographers, as that acceptable little leaflet,

"The Photographer to his Patrons."

Its utility and usefulness are proven by the fact that it has been demanded and translated into Spanish and German; that over

1,000,000 copies have been sold,

and that hundreds of photographers have written to the author, testifying to its great value as a positive *business-bringer*.

I take the liberty of sending you a copy, and ask you, *for your own interest*, to read it carefully all through. I have, since its publication, issued two other works of a similar character—*Pretty Faces*, at half the price; and *Something New*, at the same price. But the choice still seems to be for the old favorite, and I am still supplying it continually. The sample herewith is of a lot lately printed; and I desire to call your especial attention to a method which will secure you all the advantages of this work as an

(i)

the expense of hiring a man and team to distribute then in adjoining towns. I shall, undoubtedly, want more when these are gone. I got \$13.50 for the advertisements."

We endeavor to get them up in attractive and elegant style; and in order to protect those who use them in the enjoyment of them, we have *copyrighted* them, and trust no one will attempt their degradation by cheap and badly-made copies of them. We can print them as cheap as any one can for the quality, and have

RECENTLY REDUCED THE PRICES

to the following scale:

500 copies,	\$9 00
1000 "	15 00
3000 "	36 00
5000 "	50 00

Some photographers have had as many as 25,000, using them continually. Please look into the matter, and send on your orders for all seasons.

We supply, free of charge, several beautiful fancy cuts for the covers; but where three of the pages are covered with other matter, the style of the present sample is the neatest. You can have your own choice.

As already said, these leaflets are used all over the country, often by our leading photographers, from some of whom were received the following testimonials.

(iii)

advertisement, and yet cost you little or nothing. *The four pages of the cover are yours, to use for what you please.* You only need the first page for yourself. Get advertisements from your neighbors, at a proportionate figure, for the rest, and your leaflets cost you only the expense of distribution.

Messrs. Albert & Son, Alexandria, La., have seven advertisers, another recently had eight. From six of them he got \$1.75 each, and from two, \$2.25 each; making \$15—the cost of 1000 leaflets. Examine the copy herewith.

Mr. H. C. Norman, Natchez, Miss., who has adopted the same plan, writes, viz.: "As an advertising medium the leaflets have no equal. Two hours secured me seven advertisements, amounting to \$17.50, leaving me \$5.00 balance for express charges; thus securing me 1000 leaflets for nothing. With a little energy any photographer can secure cards enough from his friends to pay for all the leaflets he requires, and he should not be without them. I have not only seen, but felt, the result of using them."

Mr. L. B. Truax, Swanton, Vt., writes, viz.: "The leaflets have been received and prove a decided benefit to me. I consider them the best advertising medium I have yet found. The merchants who advertised on the covers seem to be of the same opinion; one of whom went to

(ii)

KEEP YOUR EYE ON THIS!



TESTIMONIALS:

"Send 5000 in English and 2000 in German."
JNO. A. SCHOLTEN, St. Louis.

"Let me have a lot as soon as printed."—J. F. RYDER, Cleveland, O.

"It works satisfactorily in every way."—A. N. HARDY, Boston. (Mr. Hardy has had 4 or 5 lots.)

"They are the best business-cards a photographer can have."—T. S. ESTABROOKE, N. Y.

EDWARD L. WILSON, *Photo. Publisher,*
912 & 914 Chestnut St., Philada.

(iv)

DEALERS' DIRECTORY.

The following houses are to be recommended as the best for photographers in their localities.

S. T. BLESSING, New Orleans, La.	Douglass, Thompson & Co. "Great Central," Chicago, - - - Ill.	JAMES H. SMITH, Quincy, Ill.
H. A. HYATT, Mound City Photo. Stock House, 411 North Fourth St., St. Louis, Mo.	D. J. RYAN, Savannah, Ga.	J. C. SOMERVILLE, St. Louis, Mo.
SCOVILL MANF'G CO., 419 & 421 Broome St., New York.	D. TUCKER & CO., Buffalo, N. Y.	BLESSING & BRO., Galveston, Texas.
C. H. CODMAN & CO. Boston, Mass.	WILSON, HOOD & CO., 825 Arch Street, Philadelphia, Pa.	B. FRENCH & CO. Boston, Mass.
WM. J. HAZENSTAB, 406 Market St., St. Louis, Mo.	EDWARD L. WILSON, Photo. Publisher, LANTERN SLIDES, 912 & 914 Chestnut St., Philadelphia.	THEO. SCHUMANN, Atlanta, Ga.
OSCAR FOSS, San Francisco, Cal.	G. B O D E, Milwaukee, Wisconsin.	W. D. GATCHEL, Cincinnati, Ohio.

GET THE BEST!

CRAMER & NORDEN'S
ST. LOUIS
EXTRA-RAPID DRY PLATES.

WARRANTED PERFECT,

With Latest Formulas and Complete Directions for Use.

FOR SALE BY

G. GENNERT, 105 William Street,
 New York.

SCOVILL MFG. CO., 419 Broome
 Street, New York.

ALLEN BROS., Detroit, Mich.

H. C. FRANTZ, Toledo, Ohio.

E. J. WECKES, Jackson, Mich.

JOHN I. SHAW, Pittsburg, Pa.

DAVID TUCKER & CO., Buffalo,
 N. Y.

D. H. MARKS, Rochester, N. Y.

I. N. McDONALD, Albany, N. Y.

THOS. H. McCOLLIN, Philadelphia,
 Pa.

WOLF & CHEYNEY, Philadelphia,
 Pa.

WILSON, HOOD & CO., Philadel-
 phia, Pa.

RICHARD WALZL, Baltimore, Md.

BACHRACHBROS., Baltimore, Md.

JAMES LETT, Harrisburg, Pa.

BENJ. FRENCH & CO., Boston,
 Mass. [Mass.

C. H. CODMAN & CO., Boston,

BLESSING BROTHERS., Galves-
 ton, Texas.

S. T. BLESSING, New Orleans, La.

THEO. SCHUMANN, Atlanta, Ga.

W. G. ROBINSON, Atlanta, Ga.

J. H. KIRK, Wheeling, W. Va.

J. D. DEXTER, Portland, Me.

GEO. R. ANGELL, Detroit, Mich.

GUSTAV BODE, Milwaukee, Wis.

WM. S. CONNER, Pittsburg, Pa.

DOUGLASS, THOMPSON & CO.,
 Chicago.

HIRAM J. THOMPSON, Chicago.

N. C. THAYER & CO., Chicago.

C. F. RICE, Chicago.

J. V. ESCOTT & SONS, Louisville,
 Ky.

W. D. GATCHEL & CO., Louisville,
 Ky.

W. J. HAZENSTAB, St. Louis.

H. A. HYATT, St. Louis.

J. C. SOMERVILLE, St. Louis.

J. F. INDERMILL, St. Joseph, Mo.

JORDAN & SHEEN, Cincinnati, O.

P. SMITH & CO., Cincinnati, O.

P. SMITH & CO., Columbus, O.

H. LIEBER & CO., Indianapolis, Ind.

A. BLACK & CO., Indianapolis, Ind.

MULLETT BROS., Kansas City, Mo.

JAS. H. SMITH, Quincy, Ill.

SARGENT & CO., Cleveland, O.

JOHN E. TEAL, Cleveland, O.

ZIMMERMAN & BROS., St. Paul,
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McINTYRE & CO., London, Ont.

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SAM'L PARTRIDGE, San Francisco,
 Cal.



SIX FINE CABINET AND PROMENADE PORTRAIT STUDIES.

AMONG OTHER THINGS IT CONTAINS.

Suggestions on the Choice of Albumen Paper—All the Best Silvering Baths, and Methods of treating the same—New Views on the Relation of the Silver Bath to the Time of Floating—The Different Effects Caused by the Time of Floating—How to Tell when Paper is Floated too Long or too Short a Time—Table for Time of Floating Paper under all Circumstances—The Importance of Care in Printing in Varied Ways—The Important Relation Printing from the Negative Bears to the Toning Bath—Fast Printing—Dialogue between "Joe" and a Friend—The Way to Success in Toning Lies in Printing—The Different Effects Caused in Printing by the Preparation of the Silver Bath—The Relation of the Silver Bath to the Printing from the Negative, and from this to the Preparation of the Silver Bath—Success or Failure in Toning Caused by the Strength, Purity, and Alkalinity of the Silver Bath—*Harmony*, its Importance in Photography—Why its Neglect Causes such Disastrous Results—The Beautiful in Toning, and How to Obtain it—A Few Hints About Managing Toning Baths—Formule for Printing "Our Studies," as Given under Respective Headings—Impurities of Toning Baths—How it Affects the Toning, and How to Remedy such Baths—Fixing and Washing—Brilliance of the Finished Picture Attained by the Final Washing—Various and Valuable Hints about Finishing the Photographs, etc., etc.

Mailed to any address on receipt of price, \$3.50, by any stock-dealer, or by

EDWARD L. WILSON, Photo. Publisher, 912 & 914 Chestnut St., Philada.

SOLD BY ALL DEALERS. ASK TO SEE IT.

SINGHI'S VIGNETTING ATTACHMENT FOR PRINTING FRAMES.

To be used with WAYMOUTH'S VIGNETTE PAPERS.

(Patent Applied for.)

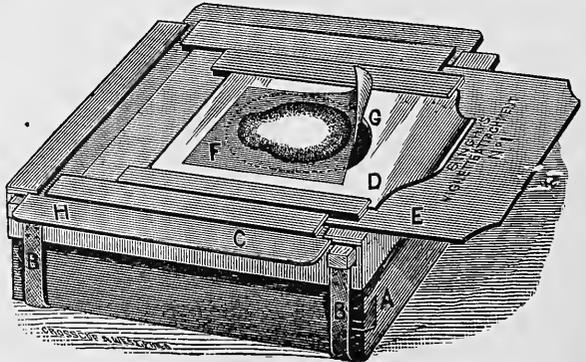
J. F. SINGHI, Inventor.

The best arrangement for adjusting these best of vignetting appliances in the world.

5x8 size now ready.

Price, by mail, \$1.50.

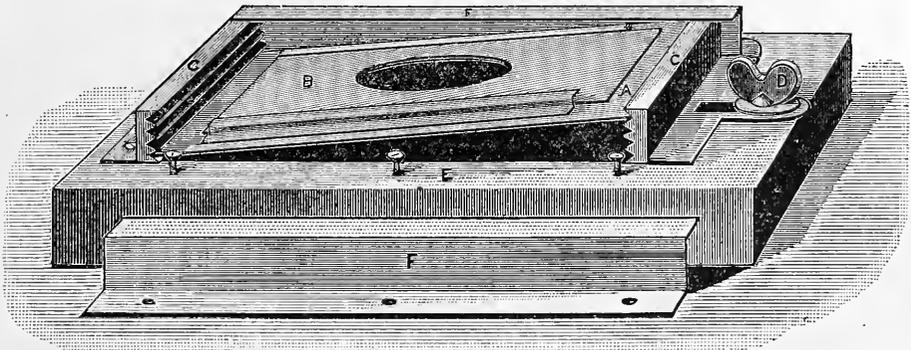
See description in this Magazine, June, 1881, or in *Wilson's Photographics*.



FOR SALE BY ALL DEALERS.

McDONALD'S METALLIC VIGNETTER.

PATENT APPLIED FOR.



THE GREATEST LABOR-SAVING INVENTION OF THE AGE.

The Latest and Best Attachment ever offered to the Fraternity. Easily attached to ordinary Printing Frames. Can be changed to thirty different positions—any one of them in from three to five seconds. Will save your printer nine-tenths of his time in setting his vignettes. The finest and most difficult effects can be produced as easy as the most simple. The card-board slides can be cut any desired shape or size. No Photographer can afford to be without them, for they will save TIME, LABOR, MONEY, and REPUTATION for producing FINE WORK. ORDER A SAMPLE.

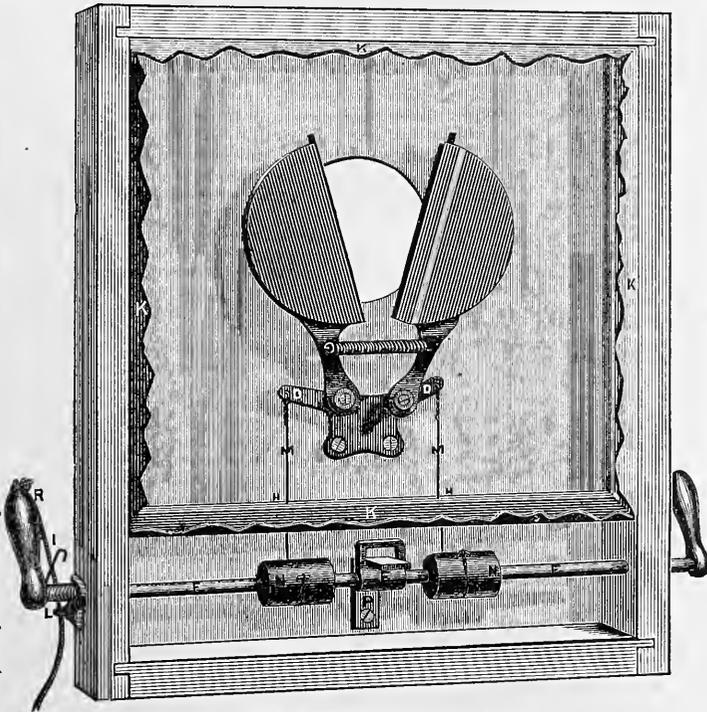
← PRICE LIST. →

For	1/2	size Frame.....	per doz.	\$6.00	For	5 x 8	size Frame.....	per doz.	\$7.50
"	4 1/2	x 6 1/2	"	"	"	6 1/2 x 8 1/2	"	"	9.00
"	5	x 7	"	"	"	8 x 10	"	"	9.00
				7.50					

NOTE—The 5 x 8 size is now ready; other sizes will be ready in a few days. 4 1/4 x 5 1/2 and 4 1/2 x 6 1/2 Vignettes are same size. 5 x 7 and 5 x 8 are same.

✦ McDONALD'S IMPROVED PHOTOGRAPHIC SHUTTER. ✦

This Common Sense has been lately improved, and is now without question the best in the market. Can't get out of order; can be depended on in every instance for a clear, quick exposure. Does not create dust in the camera; can be left open while focusing; can be operated from any part of the room; can be attached to any 8 x to camera-box in a few minutes. They are now in use by HUNDREDS OF FIRST-CLASS PHOTOGRAPHERS. Use one a week, and you would not part with it.



[Above cut shows the Shutter INSIDE of the Camera Box.]

8x10 box size, each.....\$5 00
 Odd sizes, to order.....6 50
 — PRICE LIST —
 FOR SALE BY ALL DEALERS.

HIRAM J. THOMPSON, 84 Wabash Avenue, Chicago.

NEW DRESDEN
 EXTRA  BRILLIANT
 ALBUMEN PAPER
 WHITE, PINK, PENSÉ.

FREE from BLISTERS and IMPERFECTIONS.

TESTIMONIALS.

MILWAUKEE, October 11th, 1881.

G. GENNERT, Esq.,
 New York.

DEAR SIR: The paper works lovely, and is a
 Godsend to the photographers.

Very truly, HARRY SUTTER.

MR. G. GENNERT.

DEAR SIR: One ream Extra Brilliant Eagle
 pink received and tried; my printers say it is the
 best they have had for years; it keeps perfectly
 white, which is one of the greatest features for us
 in St. Louis. It prints and tones fine. I am
 satisfied with the beautiful prints I've received for
 the past week, which is something, you know, I
 am hard to be pleased with. Keep it up, and
 send another ream immediately.

Yours truly, J. A. SCHOLTEN.

MILWAUKEE, October 3d, 1881.

G. GENNERT,
 105 William St., New York.

DEAR SIR: I wish to express my appreciation
 of the Eagle Brand Albumen Paper. I am
 highly pleased with it, it being the best I ever
 used, and for purity of tone and clearness in the
 high-lights and shadows it cannot be excelled.

HARRY SUTTER.

G. GENNERT, Esq.

DEAR SIR: I have received the 10Ko and
 8Ko Eagle light pink albumen paper which you
 sent me a few weeks ago, and now I have care-
 fully tried it, I can but say it is by far the best
 paper we have worked for a long time. Hoping
 the quality will remain the same for all time to
 come, I shall not want to use another brand.

Yours truly, H. ROCHER.

IMPORTED BY

G. GENNERT,
 105 WILLIAM ST., NEW YORK.

FOR SALE BY ALL DEALERS.

1882.

Photographers'
 Booksellers,
 Stationers,
 and
 Newsdealers
 Publishers of
 Hints on Burnishing
 Photographs,
 AND THE
 Photographers' Monthly
 Bureau of Information



1882.

We are
 MERCHANTS
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 ALL REQUISITES
 PERTAINING
 to the
 ART-SCIENCE
 of
 PHOTOGRAPHY.

Douglass, Thompson & Co.

Nos. 229 & 231 State Street,

GAYTON A. DOUGLASS.
 HENRY G. THOMPSON.

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GELATINE BROMIDE DRY PLATE.

Beebe's, Cramer & Norden's, Eastman's, Carbutt's.

Outfits, and everything used in Dry Plate work.



We invite cash trade, believing it for the best interests of all parties to adopt the pay as you go system.

With us, cash with order, or on C. O. D. purchases, insures a discount of 5 PER CENT, deducted from bill, in addition to the very low prices we offer.

A practical knowledge of the Art-Science of Photography gives us a special advantage in meeting all demands.

Our Warerooms are commodious, located conveniently for business, our stock ample for all usual demands, fresh, carefully selected, and we can sell at prices satisfactory to the consumer. We deal in nothing but supplies for Photography, devoting our whole time and energies to the wants of our patrons, thus offering a special advantage to such who appreciate care and attention. We study promptness in meeting all favors entrusted to us, and guarantee exactness.



A NEW TREATMENT

For Consumption, Asthma, Bronchitis, Catarrh, Dyspepsia, Headache, Debility, Neuralgia, Rheumatism, and all Chronic and Nervous Disorders.

ADMINISTERED BY INHALATION.

ACTS DIRECTLY upon the great nervous and organic centres, and *cures by a natural process of revitalization.*

HAS EFFECTED REMARKABLE CURES, which are attracting wide attention.

HAS BEEN USED BY Rt. Rev. John J. Keane, Bishop of Richmond, Va., Hon. Wm. D. Kelley, T. S. Arthur, and others, who have been largely benefited, and to whom we refer *by permission.*

IS STRONGLY ENDORSED: "We have the most unequivocal testimony to its curative power from many persons of high character and intelligence."—*Lutheran Observer.* "The cures which have been obtained by this new treatment seem more like miracles than cases of natural healing."—*Arthur's Home Magazine.* "There is no doubt as to the genuineness and positive results of this treatment."—*Boston Journal of Commerce.*

THE OXYGEN HOME TREATMENT contains two months' supply, with inhaling apparatus and full directions for use.

SENT FREE: a Treatise on Compound Oxygen, giving the history of this new discovery and a large record of most remarkable cures. Write for it. Address

DRS. STARKEY & PALEN, 1109 and 1111 Girard St., Philadelphia, Pa.

DEPOSITORY ON PACIFIC COAST.

WE HAVE ESTABLISHED A DEPOSITORY OF OUR COMPOUND OXYGEN HOME TREATMENT at San Francisco, Cal. This will enable patients on the Pacific Coast to obtain it without the heavy express charges which accrue on packages sent from Eastern States.

All orders directed to H. E. MATHEWS, 606 Montgomery Street, San Francisco, Cal., will be filled on the same terms on which we fill orders sent directly to our office in Philadelphia.

Patients ordering from our depository in San Francisco should, at the same time, write to us, and give a statement of their case, in order that we may send such advice and direction in the use of the Treatment as their special disease may seem to require.

ALSO SENT FREE

"**HEALTH AND LIFE,**" a quarterly journal of cases and cures under the Compound Oxygen Treatment. Nos. 1 and 2 now ready. Address

DRS. STARKEY & PALEN,
Nos. 1109 and 1111 Girard Street, Philadelphia, Pa.

FREE LUNCH!

WE WILL SEND YOU A SAMPLE OF OUR
UNION NEGATIVE COTTON,
 FREE OF CHARGE,

So that you may try it and be convinced of
ITS SUPERIOR QUALITY.

IF YOU NEVER HAD WASTE REFINED BY US
 GIVE US A TRIAL AND COMPARE RESULTS
Circulars How To Save Waste, free on application.

CHAS. COOPER & CO.,
 194 Worth St., New York.

PHOTOGRAPHIC COLORISTS' GUIDE THE

\$1.50

AT



By the late **JOHN L. GIBON**

→ **PHOTOGRAPHIC COLORING.** ←

The growing demand for a fresh work on *Photographic Coloring*, one that contains full instructions on all the new and improved methods—for like photography itself, photo. coloring has improved and progressed—has led to the publication of the above.

ITS CONTENTS ARE:

PREFACE.

- Chap. I. On India-ink Work.
- II. The Principles to be Considered in the Application of Colors.
- III. The Materials used in Finishing Photographs with Water Colors.
- IV. Water-color Painting as Applied to Photographs.

- Chap. V. Relative to the Use of Paints that are Mixed with Oil.
- VI. Coloring with Pastels.
- VII. The Production of Ivory-types.
- VIII. The Crystal Ivorytype.
- IX. Crayon Work.
- X. Negative Retouching.
- XI. About Matters so far Forgotten.
- XII. Rudimentary Perspective.

The last chapter is on a subject entirely new and fresh, and is finely illustrated.

Mailed on receipt of price,
\$1.50 per copy.

EDWARD L. WILSON,
 PHOTO. PUBLISHER,
 912 & 914 Chestnut Street, Philadelphia.

ONLY THE BEST GOODS ARE COUNTERFEITED !

BUY NOTHING BUT THE
Genuine Albumenized Papers.

Look THROUGH the Paper and find the WATER-MARK.

“S. & M.” in the “S. & M.” Extra Brilliant Paper,

“N. P. A.” in the “N. P. A.” Extra Brilliant Paper,

“Cross Swords” in the “Cross Sword” Paper.

**ALL THE ABOVE HAVE BEEN COUNTERFEITED, AND
 UNLESS THE WATER-MARK IS FOUND, DON'T TAKE IT.**

THE “N. P. A.” EXTRA BRILLIANT, CAN BE HAD IN
 WHITE, PINK, PEARL, AND PENSÉ TINTS,
 E. & H. T. ANTHONY & CO., Sole Agents.

AMATEUR PHOTOGRAPHY.

Our AMATEUR EQUIPMENTS are Unsurpassed and Unrivalled.

ASK THE DEALERS.

— SOLE AGENTS FOR THE —

TROPICAL DRY PLATES.

The only *Gelatino-Bromide Dry Plate* that can be used in any climate and at all temperatures, and the only one that can be developed with WARM or even HOT water, and then immediately dried over a *Spirit Lamp*, without frilling, or danger of the Negative running off the plate.

E. & H. T. ANTHONY & CO., No. 591 Broadway, New York,
 DEALERS IN EVERYTHING PERTAINING TO THE PHOTOGRAPHIC ART.

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MANUFACTURE ALL KINDS OF

CARDS and CARDBOARDS

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PHOTOGRAPHERS

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FOR

FERROTYPES.

WAREHOUSE:

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PHILADELPHIA.**

PRICE LISTS ON APPLICATION.

JOHN G. HOOD.

ESTABLISHED 1865.

WM. D. H. WILSON.

WILSON, HOOD & CO.

825 Arch Street,
PHILADELPHIA,

SOLE AGENTS IN THE UNITED STATES FOR THE
LONDON, 1851. LONDON, 1862. PARIS, 1867.



Centennial, 1876.

Centennial, 1876.

Ross' Portrait and View Lenses.

WE HAVE
NOW
IN STOCK

Portrait Lenses, from 1-4 to 8 x 10.
Cabinet Lenses, Nos. 2 and 3.
Card Lenses, Nos. 1, 2, and 3.
Triplets, Nos. 1, 2, 3, 4, 5, 6, and 7.
Symmetricals. Rapid Symmetricals.

Instantaneous Doublets, all sizes.
Medium Angle Doublets, all sizes.
Large Angle Doublets, all sizes.
Stereographic Lenses, all sizes.
New Universal Lens.

Numerous testimonials pronounce them to be the *best* as well as the *cheapest* Foreign Lenses ever offered to the American Photographer. We will mail price list on application, and promptly fill all orders.

Steinheil's Sons' NEW APLANATIC Lenses.

We now have a full stock of these Celebrated Lenses, at the following prices:

No. 1-1-4 size, ... 3 1/2 inch focus, ...	\$25 00	No. 5-10 x 12 size, ... 13 1/2 inch focus, ...	\$70 00
" 2-1-2 " ... 5 1/4 " " " "	30 00	" 6-13 x 16 " ... 16 1/4 " " " "	110 00
" 3-4-4 " ... 7 " " " "	45 00	" 7-18 x 22 " ... " " " "	200 00
" 4-8 x 10 " ... 10 1/4 " " " "	60 00	" 8-20 x 24 " ... " " " "	359 00

Nos. 1 and 2 are in matched pairs for stereoscopic work.

We feel sure that at least one of these lenses is needful for the successful prosecution of your business, and so solicit your orders. Always in stock, to suit above Lenses, CAMERA BOXES made by AMERICAN OPTICAL CO., SEMMENDINGER, and S. PECK & CO.

WE MANUFACTURE, IMPORT, AND DEAL IN ALL KINDS OF

Photo. Goods, Frames, Stereoscopes and Views,

At prices as low as are consistent with the quality of goods furnished. We are indebted to our customers for the patronage during the past *Sixteen Years*, and our efforts shall be to merit a continuance of it. We have been appointed Trade Agents for

Parys' and Lindsay's Cotton, Solar and Contact Printing,
Cremer's French Lubricator, Coloring in all Styles, for the Trade.

ILLUSTRATED PRICE LISTS FREE TO ALL APPLICANTS.

B THE BEEBE DRY-PLATE B

MANUFACTURED BY THE

CHICAGO DRY-PLATE AND MANUFACTURING CO.,

Office, No. 2228 INDIANA AVENUE,

CHICAGO.

A Standard Plate, Carefully Made,

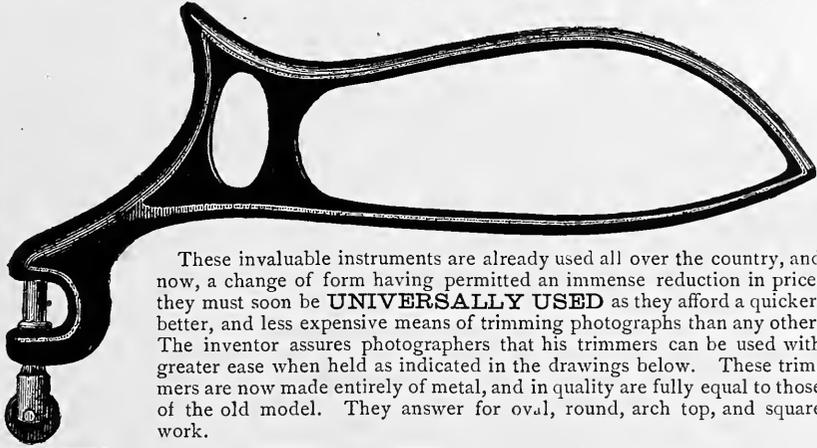
Thoroughly Tested, Handsomely Packed,

Wet Plate Effect.

ALL DEALERS HAVE THEM.

ROBINSON'S NEW MODEL PHOTOGRAPH TRIMMERS!

This drawing is of the full natural size and shape of the New Model Revolving Trimmer. The *Straight Cut* is of same size, varying but little in shape.



These invaluable instruments are already used all over the country, and now, a change of form having permitted an immense reduction in price, they must soon be **UNIVERSALLY USED** as they afford a quicker, better, and less expensive means of trimming photographs than any other. The inventor assures photographers that his trimmers can be used with greater ease when held as indicated in the drawings below. These trimmers are now made entirely of metal, and in quality are fully equal to those of the old model. They answer for oval, round, arch top, and square work.



Plan of holding the *Straight Cut* Trimmer when in use. **PRICE, 50 CENTS.**



Plan of holding the Revolving Trimmer when in use. **PRICE (with one card guide) \$1.00.**

ROBINSON'S GUIDES. MADE OF SHEET-IRON.

We have the following **Regular Sizes** always on hand at 10 cents per inch the longest way of the aperture.

OVALS.				SQUARE OR ROUND CORNERED.			
2 x 2 $\frac{1}{2}$	3 $\frac{3}{8}$ x 4 $\frac{1}{8}$	5 x 7	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	2 $\frac{1}{16}$ x 3 $\frac{3}{8}$	2 $\frac{5}{16}$ x 3 $\frac{3}{8}$	2 $\frac{3}{4}$ x 4 $\frac{1}{2}$	4 x 5 $\frac{5}{8}$
2 $\frac{1}{2}$ x 3	3 $\frac{3}{8}$ x 4 $\frac{1}{8}$	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	2 $\frac{1}{2}$ x 3 $\frac{3}{8}$	2 $\frac{5}{16}$ x 3 $\frac{7}{8}$	2 $\frac{7}{8}$ x 4 $\frac{5}{8}$	4 $\frac{1}{8}$ x 5 $\frac{7}{8}$
2 $\frac{1}{2}$ x 3	3 $\frac{3}{8}$ x 4 $\frac{1}{8}$	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$	7 x 9	2 $\frac{1}{2}$ x 3 $\frac{3}{8}$	2 $\frac{5}{16}$ x 4 $\frac{1}{2}$	3 $\frac{1}{8}$ x 5 $\frac{1}{4}$	3 $\frac{3}{8}$ x 6
2 $\frac{1}{2}$ x 3	3 $\frac{3}{8}$ x 5 $\frac{1}{8}$	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$	7 $\frac{1}{4}$ x 9 $\frac{1}{4}$	2 $\frac{5}{16}$ x 3 $\frac{1}{8}$	FOR STEREOGRAPHS.		4 x 6 $\frac{1}{8}$
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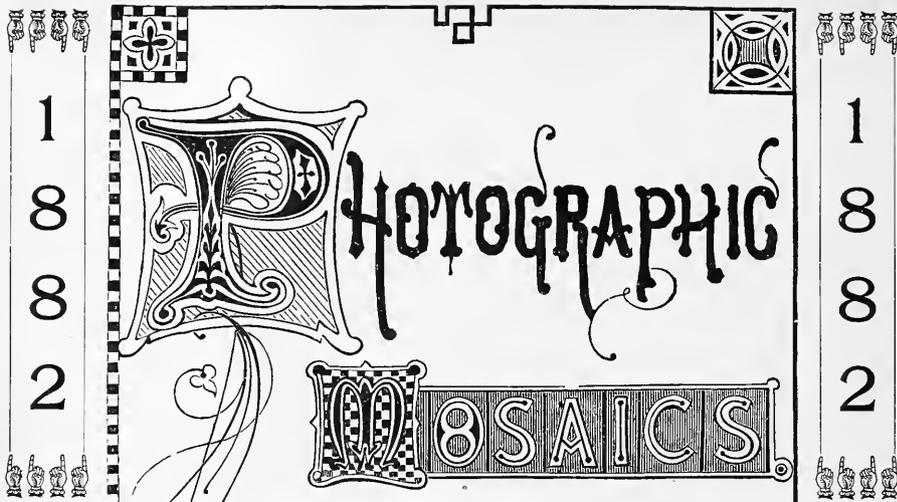
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SUMMARY OF CONTENTS.

	PAGE
Home Again,	225
To Indianapolis,	225
Pyramidal Perambulations,	225
Picture-making with Mr. H. P. ROBINSON, at Gwysaney Hall, North Wales,	229
Answers to Questions to the Craft,	232
A Hint or Two to Bromo-Gelatine Workers. By B. W. KILBURN,	240
An International Association,	240
Society Gossip,	240
Edinburgh Photographic Society,	243

	PAGE
Photographic Experiences in the East. By WILLIAM H. RAU,	243
A Yankee in Egypt,	246
A Process of Photo-engraving on Zinc or on Copper with Bichromatized Albumen. By LEON VIDAL,	247
Know Its,	250
Our Picture,	251
The Price Conundrum. By M. H. ALBEE,	252
Voices from the Craft,	253
Pertaining to the P. A. of A.,	254
Editor's Table,	255

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INDEX PAGE FROM WILSON'S PHOTOGRAPHICS.

- Intensifier, The.
 Ammonia and Mercury.
 Bichloride of Mercury.
 Ferrid Cyanide.
 Iron and Acid.
 Perchloride of Iron.
 Permanganate of Potash.
 Pyrogallic Acid.
 Schlippe's Salts.
 Silver and Acid.
- Interior Work.
 Kaolin, Rectifying Printing-Bath with.
 Landscape Apparatus.
 Photography.
 Views, Formula for.
- Lantern Slides and Enlargements.
 Leaking of the Glass Studio.
 Lens or Objective, The.
 Lenses, Angle of View Possible with.
 Choice of.
 Forms of.
- Light and Accessories.
 and Shade, or Chiaro-Oscuro. Reflected.
 Lighting, Rembrandt's Style of.
 "Lightning" Processes.
 Linen, Printing on.
 Lubricating the Prints.
 Managing the Model.
 Manipulations, The.
 Manipulatory Miseries.
 Marbled Appearance of the Paper.
 Red Lines on Prints.
 Measiness in Prints.
 Measles or Mottles on Prints.
 Measuring, Metrical.
 Medallion Printing.
 "Megatypes."
 Metallic Spots in Prints.
 Model, Study the.
 Mounting and Finishing.
 Paste.
 without Cockling.
- Nature, Study.
 Negative, A Generally Wretched.
 Negatives, Black and White.
 Defects in.
 "Doctoring" for Printing.
 for Solar Printing.
 Preserving of.
 Printing Dense.
 Printing Weak.
 Removing Stains from.
- Network, Formation on the Film of.
 Objective or Lens, The.
 Objects, Distances of.
 Only Lines in Negatives.
 Opaque for Negatives, Gibon's.
 Outside Photography.
 Chemistry of.
 Work, Art Principles in.
 Work, Clouds in.
 Work, Exposure.
 Work, Keeping Plates for.
 Work, Tent for.
- Over-Exposure of Bromo-Gelatine Plates.
 Paper, Cockling of the.
 Drying the.
 Expansion and Contraction of.
 Fuming the.
 Keeping White the.
- Marbled Appearance of the.
 Sensitizing the.
 Woolliness of the.
- Perspective.
 Photography, Landscape.
 Phototypes, Basis for.
 Exposure of the Negatives for.
 Husnik's Substratum for the Plates for.
 Inking the Films for Printing.
 Plain Paper, Printing on.
 Platinotypes, Sensitizing the Paper for.
 Cleaning and Washing.
 Development of.
 Exposure of the Paper.
 Porcelain, Printing on.
 Posing, Suggestions about.
 Preserving Negatives.
 Printing, Art in.
 by the Solar Camera.
 Dense Negatives.
 Development Process of.
 Flat Negatives.
 Medallions.
 on Albumen Paper.
 on Various Surfaces.
 Stereoscopic Views.
 Temperature in.
 Vignettes.
 Weak Negatives.
 Printing-Bath, The.
 Decolorizing the.
 Strengthening the.
 Printing-Room, The.
 Prints, Acidifying the.
 Blistering of the.
 Burnishing the.
 Defectively Toned.
 Drying the.
 Encaustic Paste for.
 Fading of the.
 Fixing.
 Glace.
 Imperfect Washing of the.
 Lubricating.
 Measled or Mottled.
 Metallic Spots in.
 Refuse to Tone.
 "Spotting" the.
 Touching Out.
 Treatment with Alum of the.
 Trimming.
 Warm-Water Washing of.
 Washing in "Lead Water."
 Washing the.
 With Red Marbled Lines.
 Yellowness of the.
- Productions of Photography, The.
 Public, Relation of the Photographer to the.
 Pure Whites in Prints.
 Quick-Acting Processes.
 Red Patches on Prints.
 Reducing Process for Solar Negatives.
 Reinforcing the Negatives.
 Rembrandt's Style of Lighting.
 Removing Stains from Negatives.
 Retouching Bromo-Gelatine Plates.
 Process, Solar Negative.
 the Negatives.
 Reversing the Negative, Apparatus.
 Robinson's Print Trimmer. [for
- Screens and Curtains.
 Sensitizing Paper for Platinotypes.
 the Paper.
 the Plate.
 Shortening the Exposure.
 Silver Iodide, to make.
 Saving, Method of.
 Solutions, Volumetric Test of.
 Sky and Clouds, The.
 Softness in Lighting.
 Solar Camera Printing.
 By Artificial Light.
 Camera Printing Negatives, re-touching.
 Negative Reducing Process.
 Retouching Process.
 Stains from Negatives, Removing, on the Hands.
 Stereoscopic Views, Printing.
 Negatives Preparing.
 "Stop," Use of the.
 Streaks and Stains in Negatives.
 Strengthening Gelatine Emulsion Plates.
 the Printing-Bath.
 Studio, the Glass.
 Construction of the.
 Curtains.
 How to Build a.
 Leaking of the Glass, with Curved Light.
 Working Plans for Construction.
 Subject, Choice of.
 Treatment of.
- Table for Converting Centigrade into Fahrenheit.
 for Converting Cubic Centimetres into Ounces, etc.
 for Converting Metrical to Troy.
 Millimetres into Inches, etc.
 Temperature in Printing.
 Tent, The Dark.
 Testing of Silver Solutions.
 Toning the Prints.
 Bath, Treatment of the Gold.
 Defective.
 Solutions.
 Touching out Prints.
 Transfers, Collodion, Iodizers for.
 Coloring.
 Developer for.
 Fixing.
 Gelatine Paper for.
 Printing.
- Transparencies, Bromo-Gelatine.
 for the Magic Lantern, To make
 Treatment of the Subject.
 Use of the Diaphragm.
 Varnishes and Varnishing.
 Ventilation of the Dark-Room.
 Views of Interiors.
 Collodion for.
 Exposure for.
 Figures in.
 Light for.
 Selection of.
 Vignette Printing.
 Paper, Waymouth's.
 Printing Attachment, Singhi's.
 Wastes and their Worth.
 Waymouth's Vignette Papers, Us
 Weakness of the Film.
 Woolliness of the Paper Surface.
 Yellowness of the Prints.

SEE ADVERTISEMENT ON PAGE 4 OF THE COVER, AND ON THE OTHER SIDE
 (OVER)

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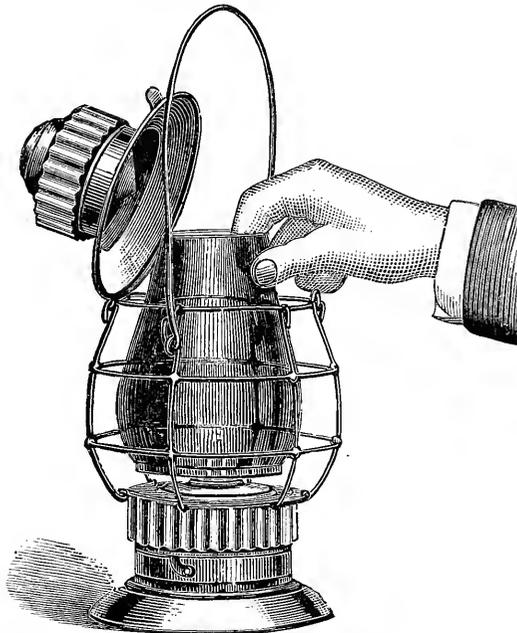
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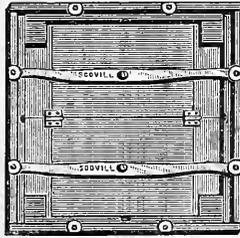
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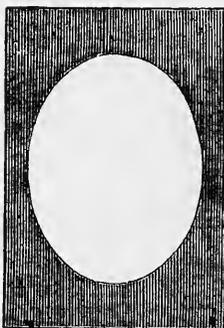
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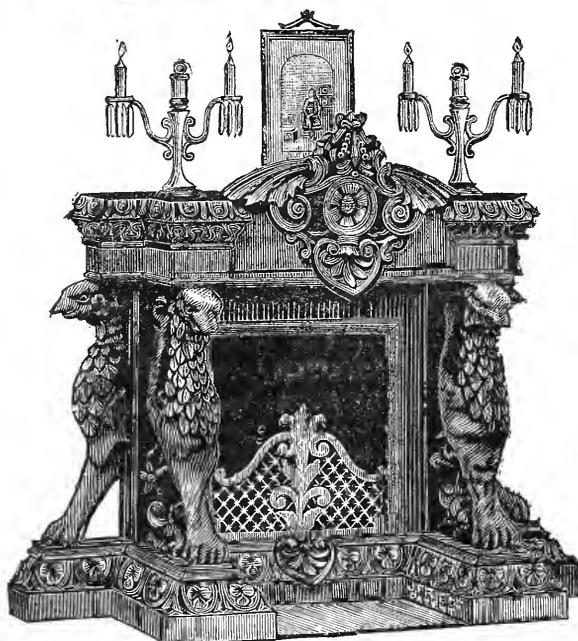
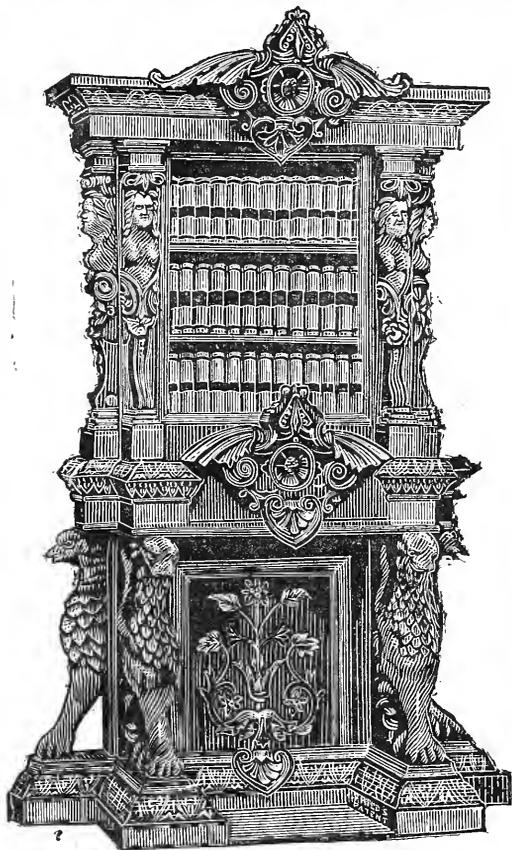
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EDITED BY EDWARD L. WILSON.

Vol. XIX.

AUGUST, 1882.

No. 224.

HOME AGAIN.

No one has realized more sensibly than we have, that we are "Home again from a foreign shore," for since our return we have had one continuous wrestle to clear our desk of accumulated matter, and to read up the past six months of our art in order to keep informed as to its dark and dry doings.

We believe the way is clearer now, and that matters will swing along hereafter, in much the old way, we were going to say, but, we hope, *better* than heretofore. We have learned *much* during our long and unique voyage, and as other matters allow us space, we shall unload to our patrons and divide with them. Good health accompanied us *all* the way, and now, let us meet you all in Indianapolis next month.

TO INDIANAPOLIS.

THIS is the last time we can urge you to go—to Indianapolis, and not only share the benefits which will accompany and flow from the Exhibition and Convention, but go prepared to give out of *yourself* such information and help as will benefit some fellow-plodder in his work. We have been in active, personal correspondence with the members of the Executive Committee recently, and they are very sanguine that an unusually large gathering will assemble there, and that the Exhibition will also be

exceedingly fine. The whole grand affair any way is for the *good of the whole craft*, so *go* and have a hand and a voice in it.

PYRAMIDAL PERAMBULATIONS.

THE ride from Cairo to the great pyramids was one of the most enjoyable experiences I have had in Egypt. The start was made from the hotel one morning early in January. The air was crisp and cool, but none too cold for thorough enjoyment. Already the streets were alive, and the dog-scavengers had assembled in groups for their morning nap in the sunshine, their work having been done the night before. Our forerunner had plenty to do to clear the way, but soon we were at the bridge *Kasr-el-nil*, and crossing it, we were fairly into the country and away from the crowd.

But what a thoroughly Cairene panoramic exhibition regaled us before we could reach the other end of that bridge! Surely, when Noah sat upon the deck of his Ark and saw the appointed train enter the front door thereof, he could have felt no keener enjoyment than I did, when on that certain market-morning I sat in my carriage and saw the fellahin pass by, with their stores piled upon camel and donkey-back and upon their own heads. It was one grand, long drawn-out *picture*—picturesque from beginning to—well, *there was no end*. I awaited my turn and then proceeded across

the bridge, seemingly welcomed by the groves of great, tall date-palms on the right, which waved their long branches overhead. Almost at once we entered the long avenue of acacia trees which reaches almost to the base of the great pyramid. A few rods from the bridge, we met the Khedive and his cortege again, and he saluted in the most friendly manner. A little turn in the road and the objective points of our journey, the tall trio of tombs, came into full view. The sun had barely reached their tops yet, and the atmosphere about them seemed still, hazy, and dreamy. How wonderfully near they appeared to be, and what a quiet, masterly dignity, so to speak, seemed to pervade thereabouts. The noise of the great city had been left behind, and there was nothing to interrupt the thoughts and wonder which involuntarily arises but the bleating of the sheep and goats as they were driven to pasture, and the never-ending "sweetly-solemn" creak of the "*shadoof*."

Seven or eight miles of this, the nearness and the rising sun both aiding more and more to bring out the great structures in bolder, stronger detail. Their smooth exterior and their precise outlines as seen in the distance were gone, and instead came the disturbed surfaces and the broken-up angles. In the irrigating canal at the left, a late gift from the sacred Nile, spread upon the placid surface of the water, lo! the reflected image of the whole of the greatest of pyramids, yet a mile away. It was as sharp and clear as nature and as entire. It led me into temptation, and cost me sundry *backsheesh* for the privilege of making the lentil-patch of a Bedouin, the shortest cut to a proper stand-point for the camera.

On, then, we went, the road now rising considerably for nearly another mile. The carriage had been sighted afar off, and a whole horde of noisy Arabs came out from under the stones and out of the chinks of the wall hard by, and up out of the dust, like locusts, to "welcome" us. But why did they slink back so when looking into the carriage? Surely it was not the American camera which dazzled them (though being made by the American Optical Co., in New York, it is therefore one of the best in the world), but my companion was

the Hon. Emil Brugsch Bey, Secretary of the Boolak Museum, the finder of the rich treasures at Thebes last summer, and a worthy gentleman, for whom the Egyptian Arab now has the most intense respect. His presence was sufficient to keep the crowd off, and we alighted now to make it easier for the horses. In five minutes we were at the top of the hill upon which the pyramids stand.

And could it truly be that, after dreaming of the pyramids and desiring to see them ever since my good friend Prof. Piazza Smyth, of Edinburgh, awoke in me a love for them, nearly fifteen years ago, I stood at their feet, an humble, insignificant, overwhelmed observer? Yea, verily it *was* true, and I proceeded to the business of their examination with the utmost expedition. I placed me first at the north side of the pyramid of Cheops, in the centre, and taking in from east to west, lifted my eyes upward to—the sky; and I think no after-view, gave me such a satisfactory comprehension of the immensity of the great structure as that first effort to take in the whole thing in one grand optical gulp. I shall never forget it, nor the satisfaction with which I swallowed the intellectual, architectural, archæological, artistic, antique feast.

Then I clambered up to the entrance and examined the master-mason's work with great satisfaction. I looked down into the great black throat which seemed to reach out in order to take me in, but I was not ready for that yet. It was to be my *dessert*, to fill in the interstices left by the feast upon feast to precede it. Colonel Brugsch had a small army of men at Sakkarah opening a pyramid, whom he wished to go to and oversee, so he placed me in the hands of the *Sheik* of the Pyramid Arab Village, *Hon. Abraham Hamed*, put him upon his honor that he was not to allow me to be disturbed, and left me to attend to the interests of the Museum, at Sakkarah.

I had seen a great many photographs of the pyramids, but none had done it justice. I found, as I walked around it, viewed it in all the changes of light, and examined it in detail. The next most impressive view I saw was had by climbing up some

twenty tiers of stone at one corner, and then allowing the eyes to follow the line laterally to the opposite corner or side. The length, or width, rather, seemed incredible, *it is* immense. And, as when you stand at the foot of the American fall at Niagara, you look up to the top and catch a volume of water as it tumbles over, and then, as you suppose, watch it in its slow descent until you think you see it break into spray at your feet, and thus impress you most satisfactorily with the height of the great cascade, so here I found me looking afar off to the other side—to the most distant angle—then bringing my mind back, stone by stone, in a straight line to my very feet (or else starting at the top and coming down step by step). I thus obtained the most gratifying impressions of the tremendous pile in whose presence I stood.

To walk around it at its base, takes one almost as long as to walk from the Delaware to the Schuylkill River, for the fallen débris makes the going difficult and the distance is not inconsiderable, for the lot of ground pre-empted by King Cheops for his tomb is considerable above eleven acres. Some of the stones near the base are very long, many of them measuring over fifteen feet. They are almost three feet high for about half the way up, and then they are less. A good climber, whose muscles are tough and whose step is sure, can make the ascent in fifteen to twenty minutes. Much as you may desire it, however, you are not allowed to ascend alone. The law won't permit it, and the Arabs are against it. It, therefore, behooves you to good-naturedly accept the proffered services of a trio of attendants—one at your right, another at your left, and a third—*ad sternum*. As you ascend, your right-hand man and your left help you in your long steps, and the other gives you a "boost," should you show any disposition to fall back, accompanying his share of the work by a loudly yelled "*hoo-ooop!*" It is not hard to take, and the view is well worth the climb. The top is about thirty feet square, and some one has placed an inharmonious wooden flag-staff in the centre. Towards the east the Nile Valley and Cario are seen, with the fertile plain between—

the pet land of Nilus—and nearer by the Sphinx lies at your feet. On the north too, fertile fields and waving palms are plenty, but as you move the eyes around to the west, the great desert spreads out before you, much further than you can see. On the south are the neighboring pyramids of Chephren, whose outer casing is still partly preserved, and of Mycernius, which was originally the most elegant of all, having been cased with polished syenite, the great blocks of which now lie tumbled about in confusion at the base. And then all around are ruined tombs and temples, and group upon group of pyramids of small size, more or less in a tumble-down condition. If you happen to remain until sunset, you will see the black shadow of the pyramid of Cheops sharp and clear cast upon the sandy plain on the eastern side, a sight worth waiting for. The clamber down is as interesting as the ascent, and should be made slowly and with frequent stops if the enjoyment of the occasion is to be felt. There are points and bits everywhere to be seen, which aid in getting a complete comprehension of the glorious old tomb. And yet, perhaps, my friend Prof. Smyth may chide me for calling it a tomb. He claims more than that for it, and among other things, that its construction was divinely directed, and that it was intended to preserve forever the standard of English weights and measures. In this he is seconded by many, among whom are the members of the American Society for the Preservation of Weights and Measures (and opposed to the metrical system). But many wise heads declare it to be a tomb. Let us be willing to grant that both of these guesses may be right, and that the interior arrangement proves it.

Come into its depths with me. First through a descending passage, bended well over, lest you strike your head, until the grand gallery is reached, when you may stand erect while you clamber up the slippery incline, with the scent of the Arab in front to stimulate you, and the rudely cut steps to cheer you, until you come to a level, and after a few easy steps more you are in the "Queen's Chamber." A short stay here is enough, for the darkness is thick, and the air is bad. A greater

treat awaits you after returning to the grand gallery again and climbing a distance further. Then you enter the grand "Chamber of the King," which contains a huge stone vessel or "coffer" that has been taken for everything, from a sarcophagus down to the standard of the English bushel. The roof construction is most curious, and the whole interior is polished finely. Magnesium had to be resorted to in order to secure proper photographs. It was done once before by Prof. Smyth, but I believe the grand gallery had never before been attempted. It caused a great consternation among the bats which have chosen it as their habitation, and I hope the oxide of our magnesium made them sick.

Wiser heads than mine have cogitated over the construction of these curious erections, and it would not be out of place for me here to offer a few suggestions on the subject, but I haven't any. Accepting the theory that the pyramids were erected as receptacles for the royal mummies—and their interiors are built exactly upon the plan of the hundreds of tombs in their immediate neighborhood: (1) a reception chamber; (2) a well, leading down to (3) the cave for the reception of the mummy—we must agree that the Egyptian kings had the most implicit faith in their theories concerning the future state. They believed that after death the mummy must remain undisturbed for fourteen hundred and fifty-two years, if eternal bliss was to be attained. During these years a sort of preparation was undergone—trial, test, purification, polishing, etc., to fit the soul for its final condition. If the mummy was disturbed, then eternal misery would follow. How, then, thought the Egyptian philosopher and king, can I best secure the undisturbed seclusion of my mummy for the required number of years? It was a point he could not decide; and one day, as he sat upon the sand in apparently idle contemplation, he was chided by his wife for idleness, "so unbecoming in a king." "I have it," he answered, without responding to her acrimony. "I have it! Look you! when I allow this sand to fall from my hand, it returns not to the level of its fellows, but, coming as it does, from the hand of royalty, lifts itself into a

tower of strength, of which it is indeed a model. So is it in your kitchen with your lentils, and your rice, and the flour with which you form your pasty; so are the banks of the Nile when the inundation is ended; so the corn in the granary, the *débris* from the quarries—all, *all* fall thus, and are typical of strength and indestructibility. Thus will I build the tombs in shape which are to hold us after our lives here are ended." And thus old Cheops and his followers builded better than they knew. It was not, therefore, to show their power, or to vent their spleen upon the thousands who worked in the construction of the pyramids, that those old kings caused the largest structures in the world to be erected. On the contrary, both Cheops and Chephren were beloved during their lives, and worshipped after their death. And Mycernius was not only very pious, but was the author of one of the most treasured religious works of the Egyptian ritual. Like all the ancient kings of Egypt, these, too, were *goodly* men, and, as Theocritus said of *his* king—

"To freemen kind,
Wise, fond of books and love, of generous mind;
Knows well his friend, but better knows his foe;
Scatters his wealth; when asked, he ne'er says
no,
But gives as kings should give,"

So were they.

And yet, after all this costly care, where are those royal mummies now? Their great tombs have been rifled; their cities are gone; ruin and one small mud village are the surroundings where once stood a vast necropolis, their tombs the centre thereof; and, instead of Cheops, Sheik Abraham Hamed reigns. He, too, is a kindly man, and can tell well the story of Napoleon I., who declared there was enough stone left of the great pyramid to erect a wall two metres high and one metre thick entirely around France. Abraham Hamed is a *good* Bedouin, too, and was kindly to me, and I like him. I told him that the Americans had been given a bad opinion of the Arabs, and would come to see him in greater numbers were they not afraid of being annoyed. In answer to the question whether I might tell them that if they asked for him and

claimed his protection they might have it, he said "*you may*. Send them to me, and I promise that they shall come and go in peace." He speaks English well, and had I had the time, I should have felt safe in accepting his invitation to remain over night at his house. He said, I could see his children, but his "wife being married, it would not be right for her to show herself."

Thus ended one day at the pyramids, and the next day I repeated the experience, with the hope of doing it twice more—once on returning from the Nile, and again after seeing Mount Sinai and Palestine.

As we drove back, Colonel Brugsch having returned on his donkey from Sakkara, the sun was going down, and we saw all those sweet changes of color for which the Egyptian sky is so famous at twilight. The boys and girls were driving the buffaloes and sheep and goats homeward; the camels and donkeys were returning empty from market, while the women bore their purchases upon their heads, and the men jingled their bags of piastres underneath their blue garments. Dealers in "curios" and "antiques" followed us a mile or two; and as the chill air came upon us, we could see the Kasr-el-Nil in the distance, with its lights already lit to show us the way. Then we could again hear the noise in the street, and almost wished we had staid with the Sheik, and visited the pyramids by moonlight, only there wasn't any moonlight. That is to be for a future visit, and after I have well digested the stories in stones which I am to see in the Boolak Museum.

What a dream I had that night! Jacob only dreamed of one long ladder and angels. I clambered up and down, and across, and along; outside; inside, and all over the ladder of the pyramid of Cheops, and saw Arabs. I hav'n't time to tell you one-fourth of what I really saw.

EDWARD L. WILSON.

MR. CARLO NAYA, the famous Venetian photographer, died May 29th. He had the largest establishment we think we ever saw devoted to photography, in an old palace "on the other side of the grand canal."

PICTURE-MAKING WITH MR. H. P. ROBINSON, AT GWYSANEY HALL, NORTH WALES.

THE smock-frock and flapping sun-bonnet, so indicative of English village life, are rapidly disappearing before the advances of railway and school-board, and artists will soon despair of meeting with homely-clad models to give life and light to the sweet scenes of woodland and pasturage that abound in our island. Already the painter has to search deeply for forgotten nooks, where outlying hamlets have not yet been contaminated altogether by the innovations of town life; and he deems himself fortunate indeed if the knee-breeches and cotton night-cap, of past generations are still found in possession of "the oldest inhabitant," and examples of female attire are seen free from vulgar frippery and the suspicion of "town-cut." If the "eye" of a picture is to be a figure, or group of figures, it is necessary to have suitable models, and this holds good, whether the picture-maker is painter or photographer.

Mr. H. P. Robinson's photographs are known to all of us, and they are known, too, as earnest attempts to compete with the painter in making pictures. Compete, perhaps, is scarcely the word, for Mr. Robinson is not so foolish as to suppose he can vie with the accomplished landscape painter; but he strives to produce a picture, by the aid of the camera, which shall please by reason of its art merits, while possessing photographic qualities of value to boot. If he does not produce works in color, he gives us pictures full of charm, full of meaning, and full of life and beauty. He does not merely search the woods and fields for views, directing his camera at them with what taste and judgment he possesses—he does something more. His aim always is, like that of a painter, to carry out some idea that tells its own story, and how he proceeds to do this we shall try to tell in this brief article.

Mr. Robinson carries a pocket sketch-book. In this is roughly limned any pose he may see, or that may be suggested to him in general observation. Whether it is in the streets, in a room, in the fields, he

notes the points of any agreeable pose. The position he observes may not be quite satisfactory, but by altering a few lines in his sketch he can make it so. The figure he sees may be too old or too plain. It matters not; when he selects his model, he can alter this. What he desires is an idea for a picture, and as soon as he perceives one it is noted down.

But he can do more than make rough preliminary sketches of figures in this way; being a photographer, he can pose a model in his studio, and thus proceed further with his study. He arranges his model according to his note-book sketch, and by altering the lighting, changing position and expression, make half a dozen different "suggestions" for a picture. The chosen "suggestions" in the form of little silver prints are then put away in the sketch-book, and here they remain until the time and opportunity arise for making a picture.

To put the matter quite clear before the reader, we have taken one of Mr. Robinson's outline "suggestions" from his pocket sketch-book. Here it is.



It is the sketch of a picture to be called "Goodbye." When Mr. Robinson has chosen a spot to his mind, he will pose his models suitably, and realize his picture. Another outline sketch is "A Merry Tale," showing simply half a dozen girls sitting down in a woodland path, one narrating, and the others enjoying the narrative. Our readers may soon have an opportunity, in all probability, of seeing how far Mr. Robinson has been successful in the fulfilment of his work in this case. This third sketch, again, is to be executed in a park-like landscape, the picturesque group of figures here

shown gathering ferns to be posed in the foreground.

This sketch-book, full of suggestions, is in Mr. Robinson's pocket when we accompany him with a few chosen painter friends to Gwysaney. Gwysaney Hall is a shooting-box of a near relative, Mr. F. H. Gosage, J. P., of Liverpool, and although there is no shooting at this time of the year, there is still plenty to attract, and plenty to enjoy. An old-fashioned stone-built mansion, with queer latticed windows and rough walls tinted red and green with lichens, stands at the top of a green hill, as if on a pedestal. On three sides the solid old mansion is fringed around with the green and black foliage of oak and fir, with blooming rhododendrons, red and pink, with clustering rose bushes, and sweet-scented briars; while on the fourth face you enjoy a clear unbounded view of pasture, lake, and woodland. At your feet stretches a smooth green slope of parkland, across which silver-furred rabbits furtively scamper; stately trees dot the verdant sward here and there, while further contrast is afforded by dense patches of foliage that deck most of the hill-tops with luxuriant greenery. To the right, deep in a shadowed dell, is a silvery pool, haunted by teal and wild duck, while afar in the distance on the left the shining Dee is seen, a broad band of light that can be followed almost to its mouth. The blue Welsh mountains rise far round to the right of the picture across the wooded valleys, while the quaint town of Mold, with its square church tower, is seen through a niche in the brown hills.

Not less attractive is the interior. Wainscoting of shining brown oak is in every room, and quaintly-carved presses and furniture that have lived through centuries. Here, on the first floor, in this oak four-poster—so black and shining, it looks like burnished ebony—the Lord Protector once slept; while tradition says Charles II., whose portrait hangs below, also occupied the same chamber. That there are ancestors frowning from the dark walls need scarcely be stated, any more than the fact that one of the big, dimly-lighted dormitories is invested with mystery, and supposed to be haunted.

Most of the pictures Mr. Robinson exhibited last year at Fall Mall were completed at Gwysaney. "Her Ancestor" was taken in this very room of dark brown panels, where Mr. Robinson has now set up his camera again to get a picture in the Angelica Kaufmann style. Here is both a sketch of his model and a photograph of his model in his pocket-book, and here, too, is the model herself ready dressed for the part she is to play. The picture has been thought out from beginning to end, and in ten minutes from this, it will be taken. Our friend has simply to place the model in its surroundings, to see that his idea is carried out as he projected, and the thing is done.

The room is admirably adapted to his purpose—that is why he has chosen it. At the back of his camera is a big bay window of clear glass, fifteen feet across, that lights the room admirably, while a second smaller window which comes into the picture supplies supplementary light, and adds much to the pictorial effect. The walls are five feet thick where this little window is, so that Mr. Robinson can show you the strongly lighted embrasure of the case-ment, without showing the light itself.

He gives an exposure of twenty-five seconds, using, of course, a gelatine plate. It is a 15 by 12 picture, and he employs Dallmeyer's rapid rectilinear. With a quick eye he notes certain shining points in the room, and either removes them or covers them up. "One matter is particularly important," says Mr. Robinson, "in these interiors; you must always see that your base-board is perfectly level."

We note two other points in Mr. Robinson's manipulation. One is that his dark cloth never slips off the camera. Near one edge of the cloth, sewn on to the binding, is a piece of elastic webbing, making a loop through which the lens is slipped when the cloth is thrown over the camera. The cloth is then always in its place. But the elastic band does not alone do this; it fulfils a yet more important function. The employment of very sensitive plates has caused photographers to be very careful of their apparatus, and Mr. Robinson has found that the Waterhouse diaphragms he

is using admit light sometimes sufficient to fog his pictures. For this reason he takes care that his dark cloth during exposure shall always cover the slit in the lens above the diaphragm, and this is done effectually by means of the rubber webbing we have alluded to. In response to Mr. Robinson's invitation, we examined his camera when capped, with and without the cloth clasp- ing the lens, and the admission of light was to be remarked at once. We cannot, therefore, too strongly advise photographers to follow Mr. Robinson's example in respect to his dark cloth arrangement.

The other point we noticed was in connection with the withdrawal of the slide when it comes to exposing the plate. Mr. Robinson uses the modern arrangement, whereby the slide is withdrawn bodily, but to be quite sure there shall be no entry of light during the operation, he makes use of a broad velvet sleeve, through which he pulls the slide. By adopting these two precautions he always secures clear and bright negatives with the most sensitive emulsion.

You ought to know so well what you want, and what you mean to do, that when you set up your camera indoors or out of doors, there shall be no delay in taking the picture. So thinks Mr. Robinson; and for this reason he goes to work without a camera in the first place. Having certain "suggestions" for pictures in his sketch-book, he looks about him for subjects to help him carry them out. A rustic bridge, a brook, a tangled thicket, a corner in the wood, whatever may be the subject that strikes him, he notes it as a suitable scene or background for a picture. He makes up his mind, in a word, how to carry out the various ideas he may have, and so it comes about that when he takes his camera in hand, he can, accompanied by his attendant models, secure half a dozen good pictures in the course of a still and sunny morning.

Every painter possesses a model wardrobe—not theatrical frippery, but worn garments of unconventional character—and the photographer who would make pictures must needs have the same. The best costumes are those purchased direct

from the country people "off their backs," so to speak, and there is no artist who has not at some time or other been compelled to bargain for a garment. As we have said, the peasantry in England unfortunately are now-a-days rarely seen in their old-fashioned costumes, and hence, if you desire to compose a picture, whether you are painter or photographer, you must be in the possession of suitable costumes wherewith to clothe your models when you have found them. Mr. Robinson makes use of coffee (an ordinary decoction of it) for tinting many of his white costumes, and rendering them more amenable to photography.

Making photographic pictures is pleasant work, so far as we can judge. The merry models—a troop of laughing girls in picturesque costumes—run helter-skelter across the park, full of gaiety and fun, now scaling fences, now jumping ditches. Fortunately Mr. Robinson has a liking for lightsome pictures, and if his "merry tale" is not a success, we undertake never to pass another opinion. If there is genuine fun reflected in it—and we believe every spectator will say so—it is because the conception of the picture is not less good than the carrying of it out. There is laughter in all degrees depicted in the picture; it runs right up the scale in the girls' faces, from a smile to a scream.

"Come and see my dark-room," says Mr. Robinson. To change half a dozen 15 by 12 plates at a time, obviously requires some care; but Mr. Robinson does it without the least misgivings in the extemporized laboratory he has here provided. It is a room containing a single table, and having a door that opens into a passage, lighted from end to end, and not with a cross light. There is a double casement in the room, but half of it has been blocked up with thick brown paper, of which Mr. Robinson carries a plentiful supply. The other half of the window, measuring twenty-four inches by eighteen inches, is covered by two thicknesses of ruby fabric. This affords protection enough if the sun is not shining directly on it; in that case another ruby sheet, together with a sheet of yellow paper, are added. "There is nothing like darkness," says Mr. Robinson; "you can then take

your time over these big plates, and need not hurry." But it is under the door that the most injurious light is apt to enter, and, to prevent this, our friend makes use of brown paper again. On the threshold he simply lays a piece of this pliant material, so folded that an upright edge one inch in height runs the whole breadth of the doorway. The door shuts against this ridge, and stray daylight is effectually shut out. A strip of brown paper may also be fastened against the door-post, should the precaution be necessary. "Brown paper is one of the most useful articles a travelling photographer can carry," sums up Mr. Robinson.

Working pictures of large dimensions necessarily involves much heavy baggage, and we note as one item that the five dozen plates with which Mr. Robinson has provided himself are contained in a case the weight of which is marked on the outside—1 cwt. 4 qr. 5 lb.—*The Photographic News*, July 7, 1882.

ANSWERS TO QUESTIONS TO THE CRAFT.

THE closing of this interesting and valuable correspondence in our June issue was a little summary. Several other interesting responses were received before our departure for the Orient, but overlooked by our friend who sat at our desk during our absence. They are full of freshness yet—"too good to miss"—and, asking the pardon of their generous authors, we give them place below.

This does not alter in the least Mr. Wallace's most instructive summing up in our June issue, page 170.

1. What has been your experience with emulsion plates? Are you having success with them, and what advantages do you find in their use?
2. What have been your failures with them, and what the cause thereof, and what the cure?
3. Do you think they will ever enable you to discard the bath and collodion?
4. Do they place you in the way of producing more artistic work?
5. How do your patrons like the resulting pictures?

6. Are your patrons more appreciative than formerly?

7. What are the prospects for business during 1882?

8. Any further hints for the good of our co-workers, will you kindly add them?

To the first question, I answer that my experience is considerable, my success is absolute; the advantage is principally in the short exposure required. I have obtained good negatives of children late in the afternoon, when I never would have attempted to work at all, and likely would have lost the work. I use them principally for children and groups.

2. I must say that my failures have really been none, when the plates were good.

The third question goes to the bottom; to answer this without "ifs" and "buts," I will say "No!" And yet I consider this an open question, which further developments may soon solve. For instance, if I were compelled to abandon either the wet or dry process, and even if the extra expense of the dry plate did not come into consideration, I would yet hesitate to give up the wet process, principally for the following reason: I do considerable retouching on the collodion negative before it is varnished. Take a gentleman whose head is upside down, as the little girl said when she saw a man "with a skating-rink on top of his head," and a large full beard. These gents never believe in having lost part of their hair by *almsen geben*—there is always some sickness the cause; they are very sensitive about it, and if you can split the half-dozen hairs they are carefully cultivating on top of their craniums in such a way that they will cover their baldness to some extent, you are "the best artist in the world." This I accomplish by a few judicious strokes with a fine sable brush, sometimes with the point cut off. This speaks volumes to the customer, even to one who has spent many a dollar for patent stuff to cultivate a moustache. Again, in the same way, using a larger brush, a stick (not as large as a fence rail), or a needle, to obliterate high-lights in dresses, change a person holding the child into a sofa, a rock, or a curtain. All these things can be done if artfully handled. The shadows are thus put in, and after varnishing, high-lights can

be worked in from both sides on the negative. This first retouching cannot be made as easily on dry plates, if ever at all.

4. Is a natural consequence if the first is answered in the affirmative.

The fifth and sixth questions I will combine. Often I say nothing about the dry plates, if I don't succeed with the wet, but in most cases I have an understanding, and charge extra, generally fifty cents for a negative not larger than 8 x 10. This compensates for the cost, and is not objected to by the customer. Under these conditions even, I now have frequent calls to use dry plates.

To questions seven and eight, I will answer that, from all evidence, I look for a good trade for the coming year. My business has gradually increased since I located here, about two years ago, and yet I must say in favor of most of my competitors, that they "are worthy of my steel." Still I would *love them better* if they would help me to raise the prices, instead of going the other way. In connection with this I will quote part of a letter that I received from a friend to-day; he says: "Your complaint concerning prices is about being solved much to the discomfiture of *yourself* and other *respectable photographers*, when shoemakers and botches who have not heretofore been able to make a clean plate, can come up under your nose and make as clean work as you do, and undersell you, and get your trade—except such as are educated to your standard, that is the issue you will be called upon to make in the dry-plate matter."

Being charitable enough to allow my friend a good deal towards his alarm in "Cheap Johnnies," I will ask, on the other hand, does *clean work alone* keep such men as Sarony, Kurtz, Rocher, and a score of others like them, at the head of the profession? I answer, *No!*

My opinion is, that the more good work the public sees the better they are educated in our art, and then comes in the artist. Besides, to work dry plates successfully is not as easy as to butter your bread, by no means; all the formulæ in the world will not make you a good dry-plate worker. As John O'Neal said, in his old formula for collodion, "*Use brains, and much of it.*" After

having carefully studied the relation of the diverse chemicals needed, and found their behavior toward the gelatine bromide, I made a dipping-bath five months ago; I use the same one now. I have developed many dozen plates from it, from 5 x 8 to 14 x 17, and I expect to work it until doomsday, but I take care of it, just as you would a good horse—feed it when it needs food.

T. M. SCHLEIER,
Nashville, Tenn.

Yours of the 1st duly received; in reply, allow me first to say, we received *Photographics* safely. I have carefully studied it, and better than words can explain, would *our work*, which has improved every day since reading your book. Now for dry plates, lest we weary you.

First, we have not used them very extensively, not enough to give any varied information on the subject, but we think they are too expensive in Canada to use exclusively. Whenever I fail the first time with the wet plate from a nervous sitter or a restless child, I at once bring the dry plate to my relief. We use Eastman's, of Rochester, and the oxalate developer we find much the best. We often fail, mostly from over-timing, flatness being the inevitable result.

We cannot say our customers care any more for them, in fact, we have on some special occasions got satisfactory negatives by the use of them where it would have been impossible to have secured them by the wet process, but the pictures have not been so brilliant as we would have wished them. We intend always keeping them on hand, and, when necessary, use them, and we trust our use will improve our opinion of them.

The business has been badly run down by cheap men in our city, we alone standing on quality not quantity, but the general ignorance of the masses makes it up-hill work sometimes, yet we never had so fair a prospect as this year seems to promise us.

Wishing you abundant success, we will watch the issue in your valuable journal.

Brock & Co.,
Belleville, Ontario.

1. Experience with emulsion plates has been but limited. I have had more to do with wet plates than I could attend to properly.

2. "The failures" have been opaque spots, with either too much or too little intensity. A lack of roundness, or general flatness of prints from negatives sufficiently timed to soften the shadows.

3. "The causes" I am unable to give you. I never have been able to surmount all the difficulties I experienced.

4. Will I ever discard the bath and collodion for them? I should be glad to if I could work them as successfully as I have the wet plates, but the work I have made with them has not been up to my standard of wet-plate work.

5. "Artistic work." I have not been able to secure as good results with emulsion as I have attained with an extra-rapid wet plate.

6. Our patrons care but little how the results are obtained so long as their requirements are fulfilled.

7. They are more appreciative now than formerly, and vastly more exacting. It requires a great deal more skill and ability to meet the requirements of the present educated age successfully than it did in years gone by, when the public were satisfied with a "likeness."

8. Business prospects for 1882 are still in the woof of time. The past six weeks in the northwest has seen but little sunshine; rain and cloudy weather, if not continuous, predominating, and as our business is largely dependent upon fair weather, the "stock trade" has suffered.

W. A. ARMSTRONG,
Milwaukee, Wis.

My experience with Cramer & Norden's dry gelatine plates has been very satisfactory; the longer I am using the plates the better I like them. The advantage of the dry plates cannot be estimated high enough; no trouble in getting good pictures of restless babies, nervous and old customers. Last summer, during our hot spell, ninety and one hundred degrees in the shade, I made a great many views of the Missouri River improvements for the Government, with great success; have not lost a single plate; I never could have made these views by the old collodion process, on account of the hot weather. It took about three hours to get to the point in a small skiff to make the exposure. I have also made some views

of places seventy-five miles from here, and developed the dry plates after I got home, with no failures.

2. I had some failures last spring, when I first commenced to use the dry emulsion plates, by over-exposure, also by under-exposure in bad light; and, in hot weather, not having my solutions cold enough.

3. I think the time will not be very long when I will use nothing else but dry plates, as the more I use them the better I like them.

4. With the dry plate there is no need for always using head-rests; the pose is more natural and graceful, and the result more artistic.

5. My patrons are more pleased with the photographs made by the dry-plate process, as the expressions are far superior.

6. They also appreciate the new process, because there is less resitting than by the wet process.

7. The prospects for 1882 are pretty good; there is abundance of work everywhere.

R. GOEBEL,
St. Charles, Mo.

During the snow blockade on the Minnesota railroads in 1881, we were requested by the officials to make some views showing the great difficulties the railroads were subjected to in keeping the roads open. Knowing that it would be impossible to do anything with wet plates, on account of the severe cold and difficulties of transportation, we ordered a lot of dry plates, and started on our first trip, without having even exposed a plate at home to ascertain the time required, etc.

We made a set of seventy-five negatives, showing the methods of work in breaking the snow blockade, and brought the plates home for development. We used the pyro developer, and were delighted at the results, having regarded the trip as an experiment. We immediately prepared for a campaign in the snow fields, fitted up a changing-box, and made things as compact as possible. Made several more trips on other roads, and in all made a pile of negatives of the snow blockade, from which we have printed and sold over 25,000 stereo. views.

The deep snow melting suddenly, caused a sudden rise in all the rivers, which re-

sulted in the ice-gorges on the Missouri, and great damage by high water on the Minnesota and Mississippi rivers. We lost no time in getting to the most interesting points on these rivers, and by means of the dry plates were enabled to secure many very valuable negatives, from which a large number of prints have been made.

One trip up the Missouri River at the time when, by reason of high water and mud, railroad and telegraphic communication was cut off from Omaha to Bismark, would have been a complete failure with wet plates; indeed, we would never have thought of attempting to make the views at all. The few failures we made were very easily traced to carelessness in handling the plates, exposing some to light, and to over-timing in a few instances.

Happening to be near New Ulm, Minnesota, on the fatal 15th of July, when the cyclone destroyed the town, I was able to make a set of negatives showing the terrible wreck. While here I had a practical demonstration of the great advantage of the dry plates, as, by an error of the telegraph, some of my plates failed to reach me, I was obliged to complete my work with wet plates, and it took me nearly a whole day to satisfactorily secure four plates, where I could have made two dozen easily with the dry.

Later in the season I made views of the United States River improvement works on the Mississippi River, also a set of the Dalles of the Wisconsin, all dry-plate work, and while the resulting prints were equal to those made from wet plates, the saving in time and vexation could not be measured.

I learned something at the New York Convention, in spite of all the combined circumstances, and on my return went to work to make the dry plate as great a success in the gallery as it had been in the field. I changed my developer, and put the oxalate to work, and was pleased with the change. I put one of Gatchel's shutters on my camera, and advertised for *babies*, and it was not long before the babies found out that they could get their pictures "taken standing," or in a group, laughing or crying, or with a big dog, and now we have a big baby trade.

I have been surprised to see how much a gelatine plate can be abused and still not go back on the operator. The other day I was called on to make an 8 x 10 group of four, they were all dressed in black, and the afternoon was very cloudy, so dark that I had a good deal of difficulty in getting the focus. I gave them no head-rests, and exposed the plate until I thought it was time for somebody to move; was sure there was no picture on the plate, but concluded to throw it in the developing tray. I left it there until late in the evening, when, happening to think of it, I took it out and put it in the hypo, not taking pains to even look at it. This was on Saturday evening, and I never thought of it again until Monday morning, when going to the fixing-tray I found, very much to my surprise, a very good negative of my group, good detail in the dark drapery, and sufficient strength to the highlights to make a strong print.

I had not intended to use the dry plates excepting for large groups and for children, but a good many customers now call for "that new process that takes pictures so quick," and I find myself using it every day for adults, and I do not think it will be many months when it may take the place of collodion and bath altogether. The present high price of plates is the only obstacle in the way of an immediate change in our gallery.

As to failures. In my case, most of them have come from the plates having been exposed to the light in some way. I have now a separate dark-room for dry-plate work; I use a light from the window of ruby glass; I had failures with ruby paper. I have been troubled some with my *dipping* developer, owing, I think, to impure kerosene oil on top of bath, but I like the method.

I find that with Cramer & Norden's plates, which I am using exclusively now, I have very little trouble with spots, and *no* trouble with frilling. For children I give very short time, and very long developing, and now failures are very rare; and by being able to be sure of a restless child, and also to make negatives when, on account of weakness of light, wet-plate work would be impossible, I feel that some of my greatest troubles have been removed.

In practice, I find that having a plate

ready, and one that will not dry and be spoiled while I am posing the sitter, is a very great advantage, as it gives an opportunity for all the attention to be concentrated to the one matter of posing and expression. The subject also enjoys having the negative made in so short a time that they "do not have time to begin to *look proper*," as one lady expressed herself a short time since.

The *prospects* for the coming season are very good. Our patrons are learning to appreciate all the latest improvements in backgrounds and accessories, and every effort that is made to elevate public taste is met with a corresponding acceptance that is very gratifying and flattering.

CHARLES A. TENNEY

Winona, Minn.

1. I have been using emulsion dry plates about a year and a half for portraits, landscapes, and views of buildings, exteriors and interiors. At first I had failures in regard to right timing of the exposure, and the same as to developing, but got righted on these points by a little practice, and can now as correctly expose and develop the emulsion plates under every condition of light and subject as wet collodion plates, and I do not hesitate to take *only* the dry plates on a trip for views (large or small), and rarely lose a negative; I feel the fullest confidence in every instance. Yes, more than in the wet collodion plates, as the latter *cannot* always be relied upon for a series of fine negatives in very hot weather under a tent, to say nothing of the labor and risk in carrying the silver bath and other solutions. The dry plates are uniform in every temperature. For portraits I can get finer middle tints and more transparent shadows, with great depth and softness; admirable for white draperies. The time of exposure being so much shorter adds another most desirable quality to their merits.

2. My failures have been frilling in a few instances of a few large plates (14 by 18 is a size I mostly use for landscapes and buildings), the cause of which was I neglected to cool my developing tray and solutions, using them at their temperature as they stood in the dark-room on south side of my building with the thermometer at 98° in the shade. A really valuable experience to me,

though it cost me eight large plates, two journeys of four hundred miles, and several days' time and expense. It will not happen to me again, I assure you. The cause suggests the remedy or preventive, viz., cool trays and solutions.

3. I truly believe that the emulsion plates will enable me to discard the bath and collodion. There is only one obstacle in the way of doing so at once: that is the cost of the plates. I don't think that good reliable plates can be furnished at much less prices at present, but when photographers get to making their own plates, they will, of course, cost less. But we must first learn to use them well before adding to our labor the trouble of making them; I have made some plates, and the results promise future success, but I prefer to purchase them at present.

I don't believe emulsion plates as difficult to make as were the collodion wet plates in the beginning. When I began to work the collodion plates nearly twenty-seven years ago, we had to make our own gun-cotton and several of the sensitizing salts, and when I compare the difficulties and uncertainties of the collodion process then, and the gelatine emulsion process of now, I am convinced that the latter will as surely succeed the former as the former succeeded the daguerrotype.

4. They do place me in the way of producing more artistic work, as they pronounce more nearly the effect of light on the object or model with more detail and harmony than the collodion wet plate. I am confirmed in my opinion, aside from my own experience, by the beautiful and surprising results of both negatives and prints from them very kindly shown me at Mr. Kurtz's gallery in New York, while attending the P. A. of A. Convention in August, also Mr. J. A. Scholten's exhibit.

5. My patrons like the resulting pictures much. Have had no adverse criticism whatever. Commendation is the universal rule, and in many cases specially complimented by my most intelligent and appreciative patrons.

6. It gives me great satisfaction to say that my patrons have grown more and more appreciative from year to year since I came

here from Boston more than ten years ago. It is a positive pleasure to do business here now. My patrons are more readily satisfied with good work. They look for something beyond mere *likeness of features* and "clear" burnished prints, however, and comprehend and appreciate artistic pose and lighting better. At first few persons were satisfied without sitting over, in fact it was sit over, and sit over; now rarely any "sit overs." So why should I not say that my patrons are more appreciative, and there are more of them? Hence I must answer

7. Your seventh, by saying that the prospect for business during 1882 is good. I have more business this year, than any previous one since coming here. People are more willing to spend their money for larger and better pictures; cheap and poor work is less sought for. I think I have good reasons for encouragement with present prospects for the coming year.

8. There is one practice among photographers that I think is expensive, and might be at least reformed in a great degree, and give better satisfaction to patrons and save a large amount of tedious labor, material, and time. It is the making of so many sittings for proofs. I have learned at a heavy cost, that the more proofs shown the more certain will there have to be re-sittings, and generally in the end "not quite satisfied." For some time I have practised making one negative only in most cases, never but two, but take all the pains I know how in posing and lighting, etc. By adopting this method, I find my patrons are less confused in judging and deciding whether they like or not, but with few sittings give very little trouble in satisfying them. Invariably if I make three or four negatives, a resitting must be made, very likely several, and then "just once more," and finally very likely "try" some other photographer. I am convinced that with me the practice of fewer sittings has worked well, as I retain my customers from year to year.

D. A. CLIFFORD,

St. Johnsbury, Vt.

In reply to your questions upon the subject of gelatine emulsion plates, I will state:

1. My experience with them dates from

the time they were first introduced in this country by Mr. Carbutt. My success was very fair from the start, but the quality of the plates varied so much, and the question of development was in such a crude state, that for a time, in spite of their many advantages, I thought it would be impracticable to use them regularly in professional work. But as soon as the ferrous oxalate developer was introduced a decided change for the better became evident, in greater regularity of result, and freedom from frilling, etc. In fact, when used for certain purposes where rapidity is desirable, for children, nervous people, a sudden call for outdoor work, or for dimly lighted interior views of churches, residences, etc., they fill a long looked-for void.

2. My failures with them have occurred first, from carelessness in using light not non-actinic enough in the dark-room, or insufficient precautions in excluding light from camera box, holder, etc. (which last cause is due mainly to bad construction in most of the apparatus sold), from over-exposure, which caused the developer to bring out the picture fully before a sufficient amount of reduction took place in the highlights, and before I could modify the developer with the bromide solution, causing weak, flat images, and unevenness of result in the plate. Now the cures for these evils are almost suggested by the causes given. The method now adopted is to commence development with a little *less iron* and more *bromide* in the developer (if the oxalate is used), and if the picture comes out too slow, add more iron, and by this means sufficient density is obtained in the first development *which in dry-plate work is almost a sine qua non to first-class results*. If you use the pyro-developer, substitute the word "ammonia" for "iron," and the same remarks will apply. I will here state, that with the pyro a much greater latitude of exposure is possible for obtaining good results than with the oxalate, but the printing qualities of the negatives I have never found as good. One rule must be insisted upon in the treatment of these plates, and success is, then comparatively easy. *Cold water to soak and wash in, plenty of ice in summer, and soaking in alum, or alum and iron, after*

development, and your film will then be safe. The reason that sufficient intensity on first development is so important, is that none of the present known methods of intensifying gelatine plates give uniform and reliable results. This is, as yet, a great desideratum. So far I have found the mixture of bichloride of mercury and iodide of potassium with a little hyposulphite of soda, as recommended by a writer in the British Journal, the best, especially if applied with a camel's hair brush to those parts only which require it. Any yellow stain from this in the shadows can be removed by immersion in the hypo bath *a few moments only*, and again washing. Should a negative become too dense in the lights from having been developed too long, in order to bring out detail in the shadows, the treatment of such portions with solution of cyanide of potassium will restore all the printing qualities to those portions, but in this case the film must be thoroughly hardened with the alum solution to guard against the possibility of destroying it with the cyanide solution. The "ozone bleach" spoken of so much in the English journals in this connection should have been introduced into this country long ago. I will here state, in concluding this paragraph, that, as usual, sensitiveness and brilliant results do not go together, and I have never seen as fine a result produced by the extremely sensitive plates as by those of the normal rapidity, and now for out-door work, I invariably choose the latter plate, unless for moving objects.

3. I do not think they will ever enable me or induce me to discard the collodion and bath for plates up to 11 x 14 inches, except for subjects requiring very quick work; but for plates over that size, especially in *very cold* or *very warm* weather, cleaner work is possible with gelatine plates, there being no danger of reticulation or drying marks; and as lenses of that size do not illuminate as well as the smaller ones, the saving of two-thirds or more in exposure is an important element. The claim that is made of eight or ten times the sensitiveness of wet plates for portrait work, if acted upon, will generally result in failure, while if the developer is so used that an exposure

of one-third the time of a wet plate will come up about right, a much better result is possible. To those who are poor chemical manipulators with wet plates, the dry plate is a perfect god-send, as it takes away their great bug-bears of collodion, bath, and the preparing of the plate. It puts such bunglers almost on a level with good manipulators. This process will also give an immense impetus to amateur photography. For solar camera negatives my experience has been very unfortunate with them.

4. They do *not* place us in the way of producing more artistic work than collodion plates, and I say without fear of contradiction that a *perfect, fully timed collodion negative* cannot be excelled, hardly ever equalled, in brilliancy, printing qualities, and richness of tone, by any dry-plate negative that can be produced. The ability to make pictures of unruly children or nervous people better than heretofore does not make one a better artist. I have made as good negatives on the gelatine plates of normal rapidity as the average work with collodion. There is a tendency in the extra-rapid gelatine plates to blend the shades and half-shades in a manner to lose their distinctive qualities, and thus rob the negative of brilliancy, variation, and the proper gradation, unless the development is very carefully conducted. The lately introduced method of using the oxalate developer in dipping baths of varying strengths somewhat lessens the danger. In fact, to summarize the whole matter by a simile, I find it an advantage to always have some first-class brandy in the house for an emergency, though I would not think of making use of it as a beverage—I prefer the plebeian lager, next to water and coffee, which are best of all; yet there are times, in cases of sickness or emergency, where a first-class stimulant is needed; there is nothing to take the place of the best brandy; so with gelatine plates, especially when the bath and collodion are *sick*. The element of expense I have left out of the question, as that is decidedly in favor of wet plates.

5. As for the resulting pictures, I cannot as yet say whether our patrons like the results better or not, as we do not inform them what process we use, nor are they more ap-

preciative than formerly, except in being more exacting constantly in the quality of the work, and as we improve the quality we find the public demand also on a higher plane.

The prospects for business for the coming season we think are good, in spite of the drawbacks of the season thus far, unless they are ruined in this city by the action of a parasite who happens to have enough money to equip a showy place, and has attempted to prop up his photographic failures by advertising cabinet cards at \$3.00 *per dozen*. If the balance of the fraternity here are compelled to follow this suicidal policy of degrading the profession, it must inevitably result in the same lamentable condition of business as prevails in other cities, where these excrescences have fastened themselves on our profession. The harm is done only when it is introduced by pretentious establishments, who do something that passes for fair work with the public.

D. BACHRACH, JR,
Baltimore, Md.

I commenced using the dry plates last fall, and I am not prepared to give any lengthy opinion in regard to their use; I have found, however, no trouble in working the process. But have found that the plates are not all reliable, and this on most any occasion would be a serious drawback to any one who is an expert with the wet-plate process. The photographs that I have made with the dry plate so far, are fully as good as any I have made with the wet plate; and could photographers be assured of uniformly good dry plates at a more reasonable rate, two serious objections to their general use would be removed. The shortening of the exposure by the dry plate is a boon long desired and a step towards progress.

I intend to give them a fair trial, and hope to find less objection and more to commend their general use. Business the last year has been good, with a continued better appreciation of finer work at fair prices.

B. F. BATTELS,
Akron, Ohio.

GO TO INDIANAPOLIS.

A HINT OR TWO TO BROMO-GELATINE WORKERS.

BY B. W. KILBURN.

I ENJOY my experiments with bromogelatine plates and find they give me many advantages which I do not get with the "wet." But I find out something new every day, and also find myself considerably puzzled sometimes. I always deem it *safe*, though, if things work wrongly to STOP SHORT! and look things over before going on. Sometimes I even sleep over it. Often, such a course, with the exercise of *gumption*, has made what promised to be an absolute failure, a perfect success. It is *always* best to stop and get all the light you can to steer you out of trouble.

Moreover, do not use any of the Japanned metal trays for development. They are a delusion and a snare, for the Japan will peel off, and when the oxalate strikes the iron it will precipitate and cause heart-rending spots on the plates. I have had at least a dozen of these dishes, and they all give out in time, and most likely spoil work you value the most. I use glass or porcelain dishes throughout my work.

AN INTERNATIONAL ASSOCIATION.

WE see some efforts made to organize an "International" Photographic Association, but we cannot see the necessity of such a body when a very excellent one already exists, unless it be, that the ambitious in this direction prefer an *American* "International" Association. "The *Chambre Syndicale de Photographie*," whose headquarters are at 10 Rue de Lancy in Paris, is a body which has many times been alluded to by our esteemed friend Mons. Leon Vidal, and its proceedings reported by him.

Invitation was extended at its birth in Chicago, to the P. A. of A. to become a branch—a part of this syndicate, and surely *that* would be the better way to secure to us the advantages of international organization than to work up another body of a kindred nature. There is not work enough for two, and since the one alluded to is already some years old, and already doing

much work, we cannot do better than join hands with it. We hope the committee of the P. A. of A. having this business in consideration will not overlook our suggestions.

One of the good things which the *Chambre Syndicale* has recently done, is to form a council for the examination of such photographic operators as desire to secure a diploma for their abilities in the art.

The examinations are of two kinds—*theoretical* and *practical*.

A circular is issued giving all the points, and if the time comes when it will be of service to our readers, we will give them a translation.

The first step is for the P. A. of A. to drop the idea of forming another international body, and then becoming a part and parcel of the excellent one already in full blast. To bring this about would give the aforesaid committee something to do really worth while.

SOCIETY GOSSIP.

AN adjourned meeting of the Indianapolis photographers was held on Saturday evening, June 17th, at the photographic stock-house of H. Lieber & Co.

Meeting called to order, and on motion of Mr. D. R. Clark, Mr. L. D. Judkins was elected Chairman *pro tem*.

Reading minutes of last meeting dispensed with.

The Chairman stated that the principal business before the meeting would be a report from the Committee on Reception.

Mr. W. H. Potter, Chairman of the Reception Committee, verbally reported that arrangements had been made with Frank Bird's City Transfer for the conveyance of all photographers attending the convention at half the usual rates, or twenty-five cents for each passenger, including trunk. All incoming trains will be boarded by an agent of Bird's City Transfer, accompanied, as far as practicable, by a member of the Committee, to whom application should be made for hack, and any information needed by strangers as to hotels and boarding houses.

To secure the advantages of Bird's Trans-

fer, it would only be necessary to let it be known that he was a photographer.

Large delegations travelling in a body are requested to telegraph ahead, either to Frank Bird or W. H. Potter, giving number of persons and time of arrival of train.

Those who prefer can take street cars at the depot.

On motion, report accepted and ordered spread upon the minutes.

The Secretary read the following letter :

PHOTOGRAPHERS' ASSOCIATION OF AMERICA.
Office of President, 206 North Clark Street,
CHICAGO, May 1, 1882.

To the Photographers of Indianapolis.

GENTLEMEN: The officers and Executive Committee of the P. A. of A. desire to express to you the deep pleasure they feel at the recent action of your body, held at a meeting in your city.

Your offer of assistance has been kindly accepted, and will doubtless aid in rendering the coming convention successful.

Fraternally,
JOSHUA SMITH,
President.

JOHN CADWALLADER,
Secretary.

JOHN A. SHOLTEN,
W. A. ARMSTRONG,
A. E. DUMBLE,
Executive Committee.

To HENDERSON GEORGE,
Indianapolis.

Mr. D. R. Clark moved that the letter of the Executive Committee be spread upon the minutes, and that we hereby express to the committee the deep sense of our appreciation and their confidence.

Adjourned to meet at the call of the secretary.

HENDERSON GEORGE.

ASSOCIATION OF OPERATIVE PHOTOGRAPHERS OF NEW YORK.—A regular stated meeting was held July 5, 1882, President Hendrickson in the chair.

The minutes of the last meeting were read, and, after slight modifications, approved.

Received—the *Philadelphia Photographer*, July; *Photographic Times*, June; *St. Louis Practical Photographer*, July; *Anthony's Bulletin*, June, with thanks.

Five new members were elected.

Professor Newton, President of the Photographic Section of the American Institute, was introduced to the Association; in courtesy to Professor Newton, the regular subject for discussion was dispensed with for this meeting, to hear some of his views on photography.

PROF. NEWTON.—I am not prepared to take up a special subject; I am always loaded with many subjects pertaining to photography. My experiments may not be of any advantage to the practical photographers of this Association, but it is a great satisfaction to know a great many things; they may be useful at times if you have any special subject, or any branch of the business; I will be very happy to answer any questions. In my experience I have prepared chemicals for different persons, but they never succeeded. No two persons with the same chemicals attain the same result; why it is we do not know. In the action of light on the mineral salts, we know the effect, but not the cause; take some of the most simple articles, for instance, cane-sugar or glucose; the constituents of both are nearly alike; still they are different; why, we don't know, but the facts we do know; the same conditions and circumstances produce the same results. I have brought some transparencies and negatives to show the Association; if you have a fine negative, sometimes you break it and it is lost. Quite a number of years ago I got up a process for duplicating negatives, and making transparencies; if you had the collodio-chloride emulsion you would not be liable to make a picture such as I show you; I could not call to mind the quantities, but it was published in the various photographic journals.

MR. ATWOOD.—I had two negatives from Professor Newton; one was an original, the other was a duplicate from it; the duplicate made as fine prints as the original.

PROF. NEWTON.—Any one working collodio-chloride knows that it tones very quick; the transparencies present were toned with the gold in the hypo; you can get any color you want, from a wine-color to a deep black. My plan is to coat the plate with collodio-chloride and dry

with heat; I now warm the negative, and while both are heated place them together—the heating prevents condensation of moisture. There is another way to duplicate negatives: you expose the sensitive film for a particular time to the action of light, and it turns into chloride of silver; what the relation of the light and the mineral is we are not permitted to know. If you have a sensitive film and expose to gas-light, you get a positive; now expose to sun-light, you get a negative; if Mr. Bierstadt was here, he could show us different results from different exposures.

Mr. Buehler could not get the collodion-chloride to work; changed everything, but it would not work; some time after he tried, and it worked with ease.

PROF. NEWTON.—Take, for example, one of the chemicals we employ: corrosive sublimate is composed of two parts of chlorine and one of mercury, which combination forms a deadly poison; now the same ingredients, under different relations, form a harmless compound.

MR. HALLENBECK.—You were once trying to turn a transparency into a negative; did you succeed?

PROF. NEWTON.—I don't think it was successful. I have used plumbago for the dusting-in process; I now use precipitated chalk and lampblack, and make a dark lead color, more of the color of a negative.

MR. BUEHLER.—Plumbago is not good to use, as it often goes on in patches.

MR. HALLENBECK.—I would like to hear some of Professor Newton's ideas on printing.

PROF. NEWTON.—I have been experimenting a great many years; it used to be thought you could not make a print on a bath less than 80 or 100 grains to the ounce; it was thought that if it was less than 60 grains, it would take the albumen off the paper. If you have 25 grains of silver, 25 grains of nitrate of magnesium, 25 grains of nitrate of ammonium, you have a solution which is capable of making fine prints. I always make my bath forty grains of silver, thirty grains of ammonium; you can work it down to twenty-five grains. You must have your solution alkaline, at least two drops of ammonia to the ounce, as it

is always tending to become acid; fume with ammonia and water, equal parts, thirty minutes in winter or fifteen in summer; gold I dissolve with four parts of hydrochloric acid, one part of nitric acid; when dissolved add bicarbonate of soda till just neutral; now your copper turns to nitrate of copper (coin gold), add aqua regia to make it acid; I use borax to make alkaline; add 2 or 3 grains of salt; you can use the toning bath over.

Mr. Atwood thought the copper was a good idea.

PROF. NEWTON.—I made some prints, and toned in a combination bath to imitate the celebrated Saloman prints; was so successful that experts could not tell the difference. I think I used chromic acid in it. A gentleman of Boston used an exceedingly acid bath (negative bath); he found that by adding two or three ounces of nitric acid the action was very sensitive.

Mr. Buehler said he had fog from too much acid.

PROF. NEWTON.—You would come out all right by adding tincture of iodine to your collodion. I have had silver crystals exposed to the sunlight for three months, and when I wanted to use them they were neutral.

Mr. Coonley said Mr. Black, of Boston, did not use as much acid in his bath as was thought; he had tested one of Mr. Black's baths, and there was no more acid in it than he uses himself.

PROF. NEWTON.—When you make up a bath it should be neutral; your bath is supposed to become acid with use.

MR. COONLEY.—In the West Indies your bath becomes neutral, and you have to add acid about twice a week.

MR. BUEHLER.—If I have an excess of nitric acid, the bath holds organic matter in suspense, and the negatives come out thin.

PROF. NEWTON.—I was never troubled with discoloration of bath when I kept it alkaline, and exposed to the sun.

MR. COONLEY.—I have used nitric and acetic acids together and separate, but never saw any difference, though I prefer nitric acid.

PROF. NEWTON.—For many years acetic

acid was used before nitric acid, but now nitric has mostly displaced acetic acid.

MR. COONLEY.—It don't matter whether your bath is acid or alkaline, if your colodion harmonizes with it.

PROF. NEWTON.—Acetic acid is not as reliable as nitric acid.

MR. STAUDNER.—Which is the safest way to neutralize a bath—with ammonia or bicarbonate of soda?

PROF. NEWTON.—Throw down your bath with bicarbonate of soda to form carbonate of silver; wash it out well, redissolve, and your bath is pure.

Adjourned. T. W. POWERS, Secretary.

P. S.—I omitted to state in my last report the cause of Mr. Atwood's resignation—his having become a proprietor disqualifies him from holding an office in the Association.

EDINBURGH PHOTOGRAPHIC SOCIETY.

INTERNATIONAL COMPETITION.

THE Council of the Edinburgh Photographic Society invites photographers throughout the world to take part in a Photographic Competition for the most suitable pictures for presentation prints to the members of the Society.

The following prizes are offered:

- 1. The handsome Gold Medal of the Society.
- 2. Silver Medal from same die, and £5.
- 3. " " " " 3.
- 4. Bronze " " " 2.
- 5. " " " " 1.

The Council wish to restrict competitors as little as possible, but suggest that the size of print should be not less than 8½ x 6½ inches, nor larger than 16 x 12 inches. The subject is left entirely open, but it is essential that competitors comply with the following conditions, which will be strictly enforced:

1. The negatives must be suitable for producing not less than 500 prints by a permanent process at a cheap rate, and lent to the Society for this purpose.

2. Competitors, if required, must forward negatives for inspection prior to the award.

3. Prize prints to be the property of the Society, and the negatives to remain in the custody of its curator until after the required prints are issued to the members.

4. Pictures to be unframed, and if mounted, must be on cardboard only.

5. No lettering, whereby the competitor can be identified, will be permitted upon the picture or mount, beyond a simple sign, number, or motto. Each picture to be accompanied with a sealed envelope bearing this mark outside, and within the name and address of competitor.

6. Competitors to forward their pictures, carriage paid, not later than 30th September, 1882, addressed to the Curator, Mr. J. M. Turnbull, 19 St. David Street, Edinburgh.

It is proposed to hold a public exhibition of the pictures sent for competition.

The Council will take the utmost care of all works submitted, but they will not hold themselves under any responsibility.

Unsuccessful pictures will be returned, if desired, at the competitor's expense.

NOTE.—Competitors may supply permanent proofs from their negatives and enclose in the sealed envelope an estimate for producing 500 similar prints, but this matter will be considered entirely apart from the award.

MALCOLM G. DOBBIE, Hon. Sec.,
8 Rosehall Terrace, Edinburgh.
W. T. BASHFORD, Cor. Sec.,
Argyle House, Portobello.

PHOTOGRAPHIC EXPERIENCES IN THE EAST.

BY WILLIAM H. RAU.

(Continued from page 232.)

On our return to the city we saw, on crossing the Kasr-el-Nil bridge, an unusual stream of passengers, donkeys, loaded and unloaded, many camels loaded with immense piles of long grass. We could not resist the temptation to make a number of instantaneous exposures. By climbing up the trestling to the broad top a good solid stand was reached, which commanded a view of the entire length of the bridge, and as each group of camels, or donkeys or carriages would come in place,

flash! would go the drop. A police officer stood ready when we clambered down to receive his *backsheesh*. A few minutes' drive into the city brings us to a newly erected dwelling-house that is a marvel of beauty and fine workmanship. It is indeed a palace—is surrounded by a magnificent garden and is strictly Arabic and Moorish in architecture. The owner, Mons. St. Maurice, a wealthy French banker, has bought up during fifteen years' residence in Egypt, every rare old bit of lattice-work, inlaid doors, floors, fine tiling, fountains, etc., that he could procure, stored them away, and finally built his palace, using all his gatherings to beautify and furnish it. We made several exterior views of it, taking each end separately, and as usual introducing a few Arab figures to locate it and assist in the composition. We could not gain admission, as the proprietor was in Europe. We wished to make a picture of an Arab woman, as we saw them every day riding on their donkeys. This was rather a delicate matter, as they are very shy, and besides the men would scarcely allow it; but *backsheesh* will procure almost anything; so we sent our dragoman in search of a woman who would unveil and allow us to photograph her on a donkey, veiled and unveiled. He reported one afternoon that he had a wife for us (meaning woman), so he took us through many winding streets, where we saw many women; he bargained with a handsome girl that we picked out of the crowd, and after promise of an extra *backsheesh* if she behaved well, we went to work right there in the street, selected an arched door as background, and placed her on a donkey, and made several negatives of her in various positions illustrating the Oriental mode of conveyance for Arab women of the middle class.

The crowd was simply awful—yelling, hooting, and many cries of *backsheesh*. We were kept busy calling *Imshee! Imshee!* (clear out), and driving them away. When ready to make an exposure, I'd cry out *Estana! Estana!* (stand still), and then watch the opportunity.

Our last afternoon in Cairo, before going on the Nile voyage, was spent among the tombs of the Caliphs. On reaching them,

the sky had clouded over and the wind sprung up, so that we did not make as many as we wished, but still caught enough to satisfy ourselves with in between the gusts of wind, and when there was a little brightening up of the light. While climbing about among the ruins, an officer of some soldiers quartered there came and ordered us to leave, as we might set the place afire. The absurdity will be noticed from the fact that the buildings are all of stone. Doubtless he thought we had explosive chemicals, or that our cameras were a new army engine of destruction. In one of the old mosques built over a tomb, we got some bits of old inlaid and Saracenic work that well repaid us for the trip out. One old mosque is kept in quite a good state of repair, and is the only one that is complete. Its dome and minaret are very high, and, like all mosques, it is built closely surrounded by other buildings, so that it was almost impossible to make a picture of it and not show bad lines. After packing up our traps for the return to the city we missed our dragoman, and in hunting him up we found him down on his knees before a niche in the wall of an old mosque, facing Mecca, his slippers lying beside him. We at once opened our camera and caught him in the act, just as he was posed in his praying position. In one of our strolls we saw a dwarf about the size and age of Tom Thumb. Of course we must have him in our list of subjects; he fought shy at first, knowing his worth, and bargaining how much *backsheesh* he was to get before standing for his picture. After a satisfactory bargain had been made, we stood him, with a bit of wall as background and his cane in hand, beside our dragoman, who stood about six feet four inches high; the contrast, of course, dwarfed the dwarf. We found afterwards that he was a favorite at the court of the Khedive, where he acted the part of clown and jester. We took with us in our trips through and about the city, one of our larger leather cases, in which our long box, containing the 5 x 8 plate-holders, the lens-box, and a few other small articles were carried; also the dark-tent, a case of 8 x 10 plates, a box with the 8 x 10 holders, 8 x 10 box, and small

camera, which we always carried screwed on the tripod, the legs bent up and the headcloth tied around with the tapes on the corners. We were very choice and careful of our instruments, always carrying the 8 x 10 wrapped in the large waterproof headcloth, with a shawl-strap around it. On the bed of the 8 x 10 camera, near the back end, I fastened, with gum bands, a roll of Joseph paper, which saved the ground glass, and spring which held the ground-glass frame and holders.

On finding that our Hermagis lens was needed more than the others, we always carried it on the camera, turned in towards the ground glass. The single lens of our Euryscope was not often needed, but when wanted only required the slipping on, without screwing of the extension bed of the camera, which then gave full length of focus, even for a tolerably close subject. In some of the narrow streets, and in making the mosques and other high buildings, we found the eight-inch Morrison lens to give a clear-cut, sharp image, embracing an angle of fully ninety degrees. For dark interiors, moving subjects, figures, etc., we invariably used the Euryscope, as it will make a full-timed negative on a B plate in two to four seconds. The 8 x 10 plate holders we carried in a box we had made in Cairo, so they would stand on their side, always handling them so; otherwise an accidental opening of the catch that holds in the division may allow plates and division to drop out. In exposing we began always on plate-holder No. 1, using them in consecutive order, excepting when we carried two rapidities of plates, then we filled six holders with B, or extra rapid, and the balance with A, or ordinary rapid, at the same time always putting them in the register in their regular order, beginning at No. 1. Immediately on making the exposure a record of it was made by Mr. Wilson in one of the Scovill Manufacturing Company's books, with the date, time of stop, remarks, and title of subject, before making another exposure, thus preventing possible mistakes. An operator using gelatine plates should always have his wits about him, keep cool, especially where two rapidities of plates are used. Just before exposing, think a mom-

ent: first, which lens and stop you are using; second, which kind of plate, rapid, extra rapid, or instantaneous; third, the lighting of your subject; then expose, always for the shadows. The great trick in exposing, especially on a view or subject in which there is an occasional movement (unless the exposure is instantaneous) is to know just when to open the flap. Practice only can teach this, as your eyes soon learn to note the moment all is still, then open and expose; don't allow any one standing near by to affect you in the least, but only expose when you see all is still and ready. In making instantaneous exposures, I could see what was before the camera and in the scope of the lens by looking over the top, from behind, through the holes in the drop as it was drawn up ready for an exposure; in this manner being able to judge of the subjects moving before us and thus having a choice. We found our five-and-a-half-inch Morrison lenses served for the majority of views, although we were many times forced in narrow quarters, etc., to use the three-inch Ross. In making instantaneous single figures or groups we always used the half-size Ross portrait lenses, nearly always using the fourth stop, rarely the fifth; while the exposure was being made or immediately afterwards, I dusted the slide on both sides with a camel's hair-brush, which I always carried in my pocket; also often brushed off the camera, as the soil and dust was gritty, and soon would grind varnish and polish away. I also always carried with me in my pockets, a diamond, a screw-driver, several gum bands, a few brass screws—various sizes, and the loose stops of our lenses. I never parted with them, so they were never missing. We began at once to mark by system, and never deviated from it, as this, we found, would be the only safe method, travelling constantly as we were, and using dry plates in quantities, as we might otherwise expose the same plate more than once. We found a good plan to keep track of the holders was to carry them in regular order, beginning at one, and with the slide up; then as soon as a holder was used—both plates having been exposed—place it back in the box reversed, or slides down. In this way, if you

are hurried, you are always sure of taking up the right holder.

As we carried 18 5 x 8 plate-holders, we generally had a sufficient number of plates for an ordinary day's work, and left the changing, packing, and refilling of the holders until night. The method of marking was to take a whole sheet of ruby paper, pin it in the shape of a cylinder, fold over one end only allowing a small vent for air, placing this over a candle around which stood a round box which prevented the light slanting down around the bottom of the ruby cylinder. The round box was afterwards used as a carrier for the pneumatic holder. The room being all ready, we opened out two plate boxes, one with unused plates and another for exposed plates, and at once adopted a uniform method of placing and arranging things, so I could find anything wanted at once. The boxes were opened in front of the light with the fresh plates on the left and the packing box on the right, then the plate-holders were piled up on the left of the light, in the order they had been exposed and registered, so the plate in holder No. 1 went in first, etc.; as soon as a box was full of exposed plates, a note was made in the register, marking the number of the following box, so that no mistakes and blunders would occur; and to insure safety I detached the tag telling the contents from the box as soon as it was empty, and marked *negatives* plainly on it, in one corner, as soon as we began filling it with exposed plates.

As each plate was put into the box from the holder, with the pneumatic holder, four pasteboard corners were inserted, then another plate, etc. When a box was only partly filled, a board with a spring at each corner was placed in next to the plates, and the corners filled in to the top with triangular wooden blocks, of which we had various thicknesses. In this way they always carried without shifting or rubbing their faces in the least.

(To be continued.)

THE "dealers" still agitate the subject of forming an Association during the Convention at Indianapolis.

A YANKEE IN EGYPT.

ARABI PASHA MENTALLY PHOTOGRAPHED
BY A PHILADELPHIAN — FRIENDSHIP
FOR AMERICA.

IN Cairo, to which ancient city the false prophet is marching his legions to join Arabi Pasha, on the 22d of February the Americans and Egyptians joined enthusiastically in celebrating the anniversary of Washington's birthday. Among the prominent natives was the Pasha who now leads the rebellious Arabs against the English, and of the Americans there was one Philadelphian, Edward L. Wilson, who had been journeying through the Holy Land, pressing into his service the Eastern sun and a camera to bring back to his native country some photographic views of Oriental interest for a book which he is to publish.

"The Arabs," said Mr. Wilson, yesterday, bronzed and bearded with travel, "are enthusiastic over the Americans. On the occasion of the celebration an Egyptian band played all the American national airs, frequently breaking into a spread-eagle speech with 'Yankee Doodle,' or destroying the fine point of an oratorical effort with a sudden outburst of 'Hail Columbia.' The Kbedive was invited to join us in doing honor to the 'Father of his country,' but Tewfik could not accept, so he sent Arabi Bey—Pasha, as he now calls himself—with several other army officers.

"Let me describe this man," continued the artist, with his mind's eye on a brain photograph of the rebellious Egyptian. "Picture a tall, heavy-faced man, sullen, swarthy, with only a pretty clear eye to soften the general harshness of expression and a black moustache to hide a not particularly finely-carved mouth. His legs are as unattractive as his face. The underpinning looks too frail for the rest of the body. He is a bulky man, not pussy or Falstaffian in girth, but a broad, thick-chested fellow, built on the lobster pattern. Take him from his heavy head to his spindle legs, Arabi Pasha reminds one more of a negro than the agreeable and pleasant-faced gentlemen one meets among the Arabs and Egyptians."

On the occasion of the celebration Mr.

Wilson said several young officers spoke loudly in their praise of Americans, and talked as if they were posted in the history of the country. Arabi made a brief extempore speech, in which Mr. Wilson said he talked as if he greatly admired Washington and hoped some day to be the Washington of Egypt himself. His dress was slovenly on this occasion, and his manners were brusque and anything but attractive. "Take him all in all," said Mr. Wilson, summing up his impression in eight words, "you would never notice him in a crowd. In fact," said the speaker "he has the air of a person who regards himself as a very big Indian, an opinion a stranger would not be likely to concur in by any means at the first blush."

In speaking of the wonderful influence Arabi exerts over his troops, Mr. Wilson related a little story in which he explained the positive effects of the power certain of the priests have over the fanatical and superstitious people. In Cairo is located the famous Mohammedan College, where young men are educated for the priesthood. While many graduate, not all by any means assume holy orders. But the fact of having been prepared for the calling invests them for all time with a power over the populace that foreigners cannot understand. Arabi Pasha was brought up in this college and is a firm believer in the Koran. In his journeyings along the Nile Mr. Wilson was accompanied by Mohammed Achmed Effendi Hadaijah, a silk merchant of Cairo, who was educated in the Sacred College with Arabi. "It frequently occurred," continued the artist, "that our dragomen would fall into disputes over trival matters and would act as if their rage was unbounded. It made no difference however great the turmoil or heated the belligerents, Effendi Hadaijah could quell the trouble and scatter the participants by simply raising his hand and speaking a few words mildly. His manner was always of the kindest, his eye tender and his face benevolent, but his presence among the lowly was sufficient to insure the profoundest respect. I knew he was not a priest and in a friendly way would endeavor to obtain from him the underlying reason of this manifest power, but

he turned my inquiries away with a smile and a wave of the hand, as if it were not to be talked about. So it is with Arabi. He was prepared for the priesthood and his followers invest him, in their religious zeal, with invincible powers and probably sacred inspirations."

When catavans meet upon the scorching sands the sheiks and dragomen, after having passed the usual courtesies, begin to inquire as to the nativity of the travellers. The dialogue is conducted something like this: "Is your's a French party?" "No." "English, then?" "No." "Ah, Americans?" "Yes." "Ah, you don't say; Americans?" and the swarthy face of the sturdy Arab is immediately wreathed in smiles, for in his heart, for some unfathomable reason, away in the boundless stretches of burning sand, he nurses a tender feeling for the sons and daughters of Columbia. Mr. Wilson found an old sheikh at the Pyramids who, out of pure spontaneous admiration for him personally and naturally, without the slightest hope of reward, followed him to Cairo and continued in his company for two weeks. When they parted American and Arab hugged each other with a warmth only found in the Orient and born of friendship under trying circumstances.—*Phila. Daily Times*, July 18, 1882.

A PROCESS OF PHOTO-ENGRAVING ON ZINC OR ON COPPER

WITH BICHROMATIZED ALBUMEN.*

BY LEON VIDAL.

MR. GOBERT gave, December 2, 1881, to the French Photographic Society an engraving process with bichromatized albumen derived from an analogous process, but much less complete and consequently less practical, which had previously been communicated to the same society by Mr. Stroubinski, of St. Petersburg. Several members of the Syndical Chamber having expressed the desire to assist at an experimental demonstration of this interesting process, Mr. Léon Vidal was requested to

* Read at the Paris Syndical Chamber of Photography.

devote to this demonstration the second part of a meeting held May 9, 1882.

Here, with all its details, is the description of this process:

First obtain sheets of a suitable size of planished copper or zinc, which are to be carefully polished before using with levigated powder of pumice-stone.

The sensitizing liquid is thus composed:

Albumen of fresh eggs, whipped to a froth (say, the whites of four eggs),	100 grms. (3 ozs. 1 dr. 43 grs.)
Bichromate of Ammonium, pure,	2.50 grammes (39 grains).
Water,	50 grms. (1 oz. 4 drs. 51 grs.)

A few drops of ammonia are added to this liquid, after which it is carefully filtered through paper. This liquid, well corked and deprived of the light, may be kept for some time. At the end of two months it still gave us excellent results. It is better, however, to not prepare too much at one time, as it does not improve with age.

We have successfully used the dry albumen of commerce in place of fresh albumen, and we then made our formula as follows:

Dry albumen (of eggs),	15 to 20 grms. (3 dr. 51 grs. to 5 dr. 8 grs.)
Water,	100 grms. (3 oz. 1 dr. 43 grs.)
Bichromate of Ammonium,	2.50 grms. (39 grs.)

Always add a few drops of ammonia to this filtered liquid, which is to be kept in a well-stoppered bottle away from the light.

To cover a metallic plate with this liquid, first place it upon a levelling-table, so that the pneumatic holder is applied underneath *well in the centre*; in order to establish a complete vacuum, care must be taken to previously wet the circular India-rubber band which assures the hermetic contact of the holder against the metallic surface. In these conditions we are certain that the plate adheres strongly to the turn-table, and there is no fear that it will be detached even by a very rapid rotary motion.

The sensitizing liquid is poured very evenly upon the plate, placed horizontally

and protected from dust; with a supple paper triangle it is directed so as to cover all portions of the plate. It is not necessary to put much liquid on the plate. As soon as it is everywhere covered, throw the excess in a vessel other than that which contains the filtered liquid, or in a filter placed on the bottle which contains the sensitizing liquid.

Now, reverse the turn-table, so that the sensitized surface is brought underneath, and give a rotary motion, first moderate, then a little more rapid, to well equalize the thickness of the film, which should be very thin. This operation should be performed in partial obscurity, as too bright a light would render insoluble the film of bichromatized albumen. When the coating is well equalized, remove the plate from the turn-table, and place it on a piece of cast- or sheet-iron heated to about 40° to 50° Centigrade (104° to 122° Fahr.) at the most. This mild heat is sufficient to rapidly dry the albumen; a greater degree of heat would be injurious—it would give rise to the coagulation of the albumen. As soon as the film is dry, which is easy to see from the variegated aspect which it takes, the plate is allowed to return to a normal temperature, and immediately exposed, either under a *positive cliché* or on an original design, so made that the lines are sufficiently opaque to completely intercept the luminous rays, which should act upon the sensitive film only through the white or translucent ground of the drawing.

We say that a positive is necessary, because we have in view the making of an engraving in sunken lines or copper-plate; if we wish to produce a typographic engraving, it would be necessary to use a negative cliché. The time of exposure varies from about one minute in full direct sunlight to from 15 to 20 minutes in diffused light. A photometric guide is in this case useful to avoid making errors.

When the exposure is ended it is necessary to develop immediately. We must now dissolve in water those portions of the bichromatized albumen that the opacities of the cliché have protected from the action of the light; these portions have remained soluble whilst the others have become com-

pletely insoluble. If the plate was plunged in ordinary water, it would be difficult to perceive the image, especially on copper. This difficulty may be avoided by coloring the water with an aniline color. Aniline red or violet, soluble in water, is very suitable for this purpose. Enough is placed in the water to make a highly-colored liquid.

The bichromatized albumen which has remained soluble is removed from the upper portion of the plate as soon as it is immersed in this liquid, whilst the insoluble parts become colored by imbibition, and we then see the lines of the drawing formed by the exposed metal and standing out on a red or violet background, according to the color of the aniline used. If the drawing appears complete, similar in all respects to the original, wash in ordinary water, and dry the protected image either with or without gentle heat. As soon as dry, we may proceed to the biting, for which an alcoholic solution of perchloride of iron is used. Both the alcohol and the perchloride of iron coagulate the albumen; their action upon the protecting albumen coating cannot be injurious since it tends, on the contrary, to a still greater coagulation. But to attain this end it is necessary that the alcohol and the perchloride of iron should be as anhydrous as possible. We take, therefore, perchloride of iron in crystals well dried, and alcohol at 95°. Here is the formula:

Perchloride of Iron

(very dry), . 50 grms. (1 oz. 4 drs. 51 grs.)
Alcohol at 95° . 100 " (3 ozs. 1 dr. 43 grs.)

Filter carefully to eliminate the deposit which may be formed, and keep in a stoppered bottle. This liquid will keep.

The plate is first covered with a bitumen of Judea varnish on the margins, if portions had not been covered by the albumen, and on the reverse side, so that the biting can only take place on the lines to be engraved. The plate is then placed in a porcelain dish, the side to be engraved uppermost, and a sufficient quantity of the solution of perchloride of iron is poured over it. Agitate to renew the surface, but never touch with a brush the protecting film. The duration of the biting varies according to the depth

of the sunken lines to be obtained. As a general rule, a quarter of an hour is sufficient. If the action is continued for half an hour very deep lines are obtained. When it is thought that the engraving is sufficient, stop the action of the perchloride of iron by withdrawing the plate and washing it in an abundance of water; then with a rag strongly rub the surface so as to remove the protecting film which is now useless. It may even be polished with pumice-stone in an impalpable powder, and the operation is then ended. This process may, as it is seen, advantageously take the place of bitumen photo-engraving when acids are not to be used. One of our colleagues, Mr. Fisch, has suggested to us the idea, well worthy of being investigated, of combining this process with the use of bitumen, and in the following manner: The sheet of planished metal is first covered with a very thin film of bitumen of Judea, rendered very even on the levelling-table; then, when the bitumen is dry, it is covered with bichromatized albumen, as has been previously said. The exposure to the light of the sun does not last more than a minute. The plate is placed in colored water, dried, and immersed in a dish containing essence of turpentine, which dissolves the bitumen on all the parts which have not been laid bare by the solution of the albumen not rendered insoluble by the light. The metal is thus laid bare where it is to be engraved, whilst the other portions are protected by a film of bitumen covered with coagulated albumen. It is now possible to use as a mordant water acidulated with nitric acid at 3, 4, or 5 per cent., according to the degree of energy required. We do not know if the solvent of the bitumen does not give rise to corrugations by penetrating the coagulated albumen. This question deserves to receive close attention.

By carefully following the indications given above, success is certain. This process may prove very useful, being within the reach of all, even of those who know little of photographic or photo-engraving operations.

READ our advertisements in this issue.

KNOW ITS.

THE tenth Cincinnati Exhibition of Industry and Art opens September 6th and closes October 7th. *Photography* is to come under "Classes 80 and 81, Department G, Fine Arts!" Only think how we advance. Gold, silver, and bronze medals and cash premiums are offered in all the departments, and photographers should absorb their full share.

THE number of "outfits" and "equipments" sold for amateur photography in this country is perfectly enormous. We were in Scovill Manufacturing Company's, New York, a few days ago, and their large store-rooms were absolutely crowded with merchandise pertaining to this new demand, and large lots going out.

A PHOTOGRAPHIC Pickwick Club is to be organized in London, the members of which are to exchange such pictures with each other as they make of Dickens-like characters.

A "WEST" photographer has invented an emulsion plate which enables him to make pictures of his patrons by the light of their own countenances. A light heart and a light pocket-book are to be utilized next.

THE Managers of the Indianapolis Convention, writes Secretary Cadwallader, are considering the plan to close the Exhibition Hall until the evening, in order to secure a more general attendance at the sessions. This, I think, would be equivalent to having only one session a day, as the boys would not be kept out of the hall and away from the pictures on exhibition more than half a day at a time.

A CORRESPONDENT sends us an argument against emulsion plates, but he don't hit the nail on the head. Where they are most needed, and where they do save time, worth while, is at the vital moment of the exposure of the plate. It is not the real object to get the patron out of the studio at the earliest moment so much as it is to save one from failures by movement, and to relieve the nervous, who look upon our operating with them as a surgical slaughter. Every one shrinks from the head-rest, and we all know how goblins dance, Arabs threaten, and

armies march, and nightmares harrow our brains during that vital moment, and how we are tempted to move. Therefore, "les 'ave 't over soon's possible."

THE varnish men of the "retouching" persuasion are in a wrangle. Mr. Morgeneier is the complainant against other manufacturers and sellers.

WOULDN'T it be a great deal better and cheaper for the Photographers' Association of America to have some one place chosen to meet each year? Think of it.

A GREAT many kinds of "vignetting devices" are in the market now. They make pretty prints.

THE *price* question promises to become a subject for debate at Indianapolis, and worthily so. We hope they will have this matter fixed.

MR. W. K. BURTON gives the following formula for preparing a non-actinic glass for dark-rooms and lanterns:

SOLUTION NO. 1.

Gelatine,	100 grains.
Water,	4 ounces.
Bichromate of Potash,	20 grains.

SOLUTION NO. 2.

Nitrate of Silver,	20 grains.
Water,	1 ounce.

By mixing the solutions, an emulsion of chromate of silver is obtained, of a very non-actinic color. Whatever excess of bichromate of potash there may be, is to be allowed to remain, and not washed out.

MR. RAU in one of his letters mentions a point in connection with dry-plate holders that is a most significant and important one, namely: the liability of the division or septum which holds the sensitive plates in position to slip out sometimes, with, of course, disastrous results. It has frequently been said that the successful practice of the art of photography depends upon the observance of small details; in fact, this is where many beginners fail—every attention being bestowed upon the main points, to the neglect of smaller matters, which are no less important. When we think what a sensitive plate really is, and how easily it is spoiled by the slightest

carelessness, we ought to leave nothing undone to guard against the slightest risk of failure, all of our apparatus should be like Cæsar's wife—above suspicion, and if the manufacturers, whose business it is to send out cameras and holders that will admit no light to the film, overlook any important essential, it is for us to rectify the omission before we start out into the field, and not afterwards when we are smarting under the loss of excellent plates, or, worse yet, the lost opportunities of making fine pictures. How small a matter is a spring-catch at the end of the holder, so constructed that the central septum can not slide out. And yet how indispensable! Could any thing be more likely to ruffle one's temper, than to see the yellow film staring him in the face just before putting the holder into its place in the camera? And this because a simple mechanical contrivance that anybody could put on to a holder in a few moments, had not been seen to before starting. And the same might be said of the sliding doors of the holder. A slip of only the eighth of an inch in one of these would hopelessly fog the end of the plate, or possibly the whole of it. And yet an automatic catch could be arranged so as to admit of the door being drawn only when it was released. Failing this, a broad stout India-rubber band might be slipped around the holder lengthwise, so as to hold both the doors in, and not be taken off until just as the holder was being put into the camera. If the automatic catch is objected to on the score of expense, there is a simple plan proposed by an Englishman, we believe, which is to paste a slip of paper over the sliding door—or to paste the door in, in other words. Manifestly, before an exposure can be made, the paper must be torn so as to allow the door to be drawn; and the ends of the torn papers serve very well for noting the memoranda of exposure, lens used, light, etc., and of course a double exposure becomes impossible. Little things of this kind often seem trivial in print, but after plates have been lost when out in the field, especially if time is short, they then assume their true value in the operator's mind, namely, an essential factor in the production of a good photographic negative.

OUR PICTURE.

WHEN in Paris a few weeks ago, in company with our esteemed contemporary Mons. Leon Vidal, we had a "red letter day" among the studios. We shall probably find space presently to record some notes concerning our experiences that day. Meanwhile we shall only speak of one which interested us most peculiarly. This was the extensive establishment known as the *Studio Americaine* of Mons. A. Liebert. Mons. Liebert was once a resident of this country, and some time ago published a very useful photographic hand-book, which he was pleased to style *La Photographie en Amerique*.

He makes a fine display at his studio of the "stars and stripes," and the U. S. A. coat of arms, and the interior of the establishment evidences that characteristic Yankee thrift and enterprise and push which M. Liebert must have imbibed when living on this side of the great alkaline bath. As we entered his door, on the right we saw a muscular little gas engine tugging away with all its might at a Gramme electric machine, which was supplying the substitute for sun-light to two studios up stairs, where portraits were made by electric light. Moreover, the little engine was used to supply coolness for the adjoining rooms, where M. Liebert manufactures his own bromogelatin plates as well as a surplus for the trade.

We were given an opportunity by M. Liebert in person to inspect all the mysterious workings of his large establishment, and were greatly interested. But what gave us the most pleasure was an inspection of his productions by means of the latest two photographic appliances. These we found to be very fine, as will be seen on referring to *our picture* this month.

Upon acquainting Mons. Liebert with the fact that our *Photographers' Association of America* were to hold an exhibition in August, and that it would interest the Americans exceedingly to see some of his results on exhibition there, he at once volunteered to give me a few examples to indulge that fancy. Always ready to share the good things we have with our readers, we have

made a "mosaic" of a selection of these pictures, and present them now as "Our Picture," believing them to be the first pictures made on bromo-gelatine plates by electric light ever exhibited thus, and, too, that they would give satisfaction to our readers. The originals are promenade size, and will be exhibited, with others, at Indianapolis during the Convention and Exhibition of the Photographers' Association of America, and will show all who see them what modern photography can accomplish. M. Liebert's method of lighting by electricity is described, with a cut of his apparatus, in the last volume of our magazine.

Our prints were made on the "Eagle Brilliant Paper," imported for us from Dresden by Mr. G. Gennert, New York. We have been using this paper for a long time for our pictures, and our printers decide that "it is the best to be had." It is furnished of various shades—white, pink, pearl, and *pensé*, which latter is a sort of a "*je ne se quoi*" color, and very pretty for our use. Of this new color Mr. Gennert writes us, viz.: "It has an unprecedented sale. I have orders on my books for over one hundred and fifty reams, and cannot get it fast enough to fill them. We think the prints will bear out all we have said as to the paper, which has now become a *necessity* to the trade all over the country. As portrait studies, and as a hint for the arrangement of pictures in a mat or frame, we also commend our "Mosaic" this month.

THE PRICE CONUNDRUM.

BY M. H. ALBEE.

I THINK the fraternity as a whole welcome you back to the post you have vacated so long. I wish to bring you to account (which is seldom the case) for turning the cold shoulder to the movement whereby an advance will be made for the good of the profession the same as there is good to come to the lawyer, doctor, and others who combine to establish some system in their profession. As in the case of doctors of good standing, who have, as a whole, adopted a scale of prices for professional work of a given kind (although they can charge as much more as their respective ability demands,

and as I understand it they have put their stamp of approval on all similar work), so should we do. The people understand it is worth that much, and that to be a doctor of regular standing any recompense less than that would not be for the advancement of medicine. So to, in our beloved art, to encourage the weaker is the duty of the stronger.

I cannot see why it is you wish to throw cold water on this movement of prices, especially when you encourage us to "stick together." Art talks are what we all need, but first of all, there must be a foundation of solid structure to build upon, for where there is dependence and not independence very little can be accomplished, unless in very rare cases, and that only when the worker has but few wants that must be supplied. I do not believe a set scale of prices can be arranged and all adhere to them; neither would it be just, for some can demand more than others, owing to ability, financial standing, and expensive locality, with extra equipments, etc., as well as class of trade, but I feel that there should be an expression from those who know what is due the worker from the employer. It seems to me, the expression of a body of men is of more weight with our customers than one's single opinion, and that is why I hope some action will be taken on this most vital point in justice to the conscientious workers, who now have to battle with the public and the unscrupulous workmen who are on the make without reference to the means they employ.

It appears to me we should, in a general way, express our opinion, as an association, that, as a rule, the conscientious worker is not fairly paid, and that as a body we recommend the ruling that we only charge for pictures from one negative, admitting it to be good, and that resitting should be paid for by the subject. This much, if no more, is what is needed, and it will give us a fair showing before the public that we have rights that should be respected. I am very much opposed to the plan recommended by that western man to bind us all to one stated price, the good and the bad; also to cause the stock dealers to bind themselves to conditions like his, when he recommends that

stock shall be sold only to members of the union. This cannot be done, as liberty of action is the fundamental principle of this republic, and for which the boys in blue fought so zealously during our late trouble.

Here is a little scrap I cut from a paper lately, and expresses my opinion fully: "It is amazing how very few persons there are among those who are called laborers who seem to understand that when a man surrenders to a body of his fellow men the right and the power to prohibit him from working at any rate of wages he sees fit to accept, he subjects himself to a slavery that ought to be intolerable to him, because he surrenders his individual liberty in a matter that he ought to keep under his own exclusive control."—G. T. E., in the *New York Sun*.

I write all this hoping to see you formulate something that will be just for the worker, and equally just for the people. Something that will encourage conscientious work, and thereby put photography on an art footing—it is far from it now, if we can believe our ears and eyes, which is the outgrowth of club work without any conscience in it. We will not notice the slurs cast on the eastern photographer; it is not in keeping with the brotherhood of man, and only shows a low mind that stoops to dirtiness.

[Our kindly correspondent, whose personal acquaintance we have many years enjoyed, did not understand us if he gathered from what we said that we intended to present a "cold shoulder" to *anything* that would benefit the *whole* of the fraternity.

We believe it would be an excellent plan for the members of the Photographers' Association of America to adopt a scale of prices, and agree that they would not only never cut *under* it, but always try to get as much *above* it as possible. The universal price was once tried, but of course it wouldn't work.—ED.]

VOICES FROM THE CRAFT.

MR. J. H. SCOTFORD'S excellent paper on "Prices," which appeared in our January issue, page 6, excited a great deal of interest, and many responses came to us. But lest the matter should be forgotten before "*convention time*," we withheld them until now.

We append a couple of specimens below, and hope the matter will be taken up at Indianapolis in real earnest, *provided* it can be that any agreement or compact will be kept.—Ed.

THE article published in the January number of the *Philadelphia Photographer*, in regard to cheap picture-making, and how to stop it, by J. H. Scotford, comes the nearest to business of anything written upon this subject, and I hope that the leading photographers will form a union as soon as possible, and stop this cheap picture-making. If the best artists will start this matter, I think the stock-dealers and manufacturers will readily stand by them. I am getting \$3.00 per dozen for cards, and \$6.00 per dozen for cabinets. I have made cards for \$1.50 per dozen, when a party tried to run me out of town; but I make better work now, give better satisfaction, at \$3.00 per dozen, to my patrons, make more money, and make it easier; and I hope that before another year comes around, there will be a fixed schedule, to make no work under a fixed price, but, of course, as much higher as the leading artists' work will command, but on no account to go under the fixed schedule price hung up in every photographic gallery in the United States. And every one that is not willing to join the union, let him go into some other business.

J. N. CHAMBERLAIN.

WEBSTER, MASS.

IN the last number of the *Photographer*, I have read an article headed, "Cheap Picture-making, and How to Stop it," written by J. H. Scotford. His ideas coincide with mine exactly. I am in favor of adopting just such a plan; do not know whether it could be carried out or not—if it could, it would be a grand thing for all photographers. I would go in for something of this kind with heart and soul. If such a plan is started, set me down as one of its members. I think something should be done to blot out all "cheap Johns." We have them in almost every town in the country. Cheap work is one of the worst features we have to contend with in photography. Now, if it were only those that can not produce good work, it would be different; but there

are many that we would naturally think would take more pride in this most beautiful profession. There is one thing that I feel proud of, and that is, I have been in the picture business since 1850, and have always held out for the highest prices in the place, and I believe that I have done as large, if not a larger business than the others. Still we can not help thinking that cheap or low prices are a great damage to us all, who pride ourselves in turning out fine results. I hope steps will be taken to carry out this plan.

A. M. ALLEN.

POTTSVILLE, PA., January 9, 1882.

INCLOSED find money for the *Philadelphia Photographer* to the end of 1882. I meant to have seen about it sooner, but am very busy and rather short of help, etc. I want to especially express my appreciation of the illustrations of your journal, and of their superior excellence as compared with those of other journals which I have been taking.

I wish you the most abundant success.

D. H. SPENCER.

ADRIAN, MICH., June 29, 1882.

HINTS TO STOCK-DEALERS.

FIRST, after many years of practical experience in the art photographic, I say that no respectable manufacturer should turn out a camera box smaller than what is known as half size. A reputable dealer will never sell an outfit to a novice or greeny without first advising him never to buy a miserable quarter size, when there is only the paltry sum of one dollar difference in the prices. I also claim that no manufacturer or dealer should be guilty of selling a box without reversible shields, unless it is sold specially as old-style or second-hand, and at figures far below a good, desirable box. One more item, and I close for the present. By experience, which is the best of teachers, I find that all ground glasses on boxes larger than five by seven should be hinged at the bottom, so as to let down, and not swing back. It is unnecessary to go into detailed reasons; it is enough to say, I know whereof I affirm. No man with a sound judgment will ever use a ground glass to swing back from him after he thoroughly tries one that lets down flat, with ground side up. In using the

bellows drawn out full length, it is still O. K., and desirable above the swing-back of old, that is now as happy as a big sunflower waiving in the breezes. Well, I admit that breezes and freezes are quite a luxury just now; but now, no swing-back ground glasses with me, but rather drop-leaf.

W. T. BROOKS.

WATER VALLEY, MISS.

[We have no doubt, "the other side" knows its business pretty well, but print Mr. Brooks' remarks with the hope that they will influence the buyer. Every maker of cameras would rejoice to be freed from making small sizes for the same reasons that a bootmaker would.—Ed.]

PERTAINING TO THE



SIX DOLLARS FOR THE ROUND TRIP FROM CHICAGO TO INDIANAPOLIS AND RETURN.—Excursion to attend the Convention of the Photographers' Association of America, at Indianapolis, Ind., leaving Chicago by special train, Monday, Aug. 7th. The coming Convention promises to be the most successful of any yet held by the photographers, and it is hoped all who can will attend.

Arrangements have been completed for an excursion that will make the journey a delightful one. Headquarters for the excursionists will be at the rooms of the Chicago Photographic Association, 229 and 231 State Street, which will be open from Friday, August 4th, until after the departure of the special train, Monday, August, 7th. Mr. J. E. Beebe, Treasurer of the Photographers' Association of America, will have his office at the rooms after August 3d.

Secure your Tickets at once by sending

remittance to Mr. J. E. Beebe, 2228 Indiana Avenue, or Mr. Gayton A. Douglass, 229 and 231 State Street, Chicago.

WE have secured reduced rates over the Chicago and Alton and the Wabash and Pacific. You will pay full fare going—\$15.25 from Kansas City, and a Certificate, furnished by the Secretary of the Convention, will entitle you to a return ticket for \$5.10 making the round trip only \$20.35. If you wish to remit us the amount (\$15.25), we will be pleased to secure tickets in advance. We look for a large delegation to start from here Sunday evening, August 6th, and hope you will make our store the starting-point—will give you a hearty welcome.

Sleeping car berths, to be paid for when claimed, secured in advance, if requested.

Please reply to this, and let us know if we may expect you.

Your friends,
MULLETT BROS.,
518 Walnut St., Kansas City, Mo.

THE LAST CALL.

VARIOUS estimates have been made regarding the number of photographers that will attend the Photographers' Convention at Indianapolis, on the 8th of this present month.

From observations and the large number of enquiries received by our Secretary, Mr. John Cadwallader, the officers and friends of this Association feel assured that it will be no small affair, but a large and successful convention.

Every photographer who has any push and desire to improve in him, will be there.

Every photographer who feels himself in the "old rut" and intends to get out of it, should certainly be there.

Every photographer who believes in associated efforts and fraternal brotherhood, must be there.

Every photographer in the land, from Maine to California, and from Texas to Canada, is expected to be there, not by "proxy," but individually, to fill the vast halls and large theatre so that no vacant seats remain.

Gentlemen and Brother Photographers, can you not realize the enthusiasm, the influence, the good effect, thus produced? This is no dream, no pen-picture colored with words! This is what it should and can be through associated efforts. I would therefore impress upon every photographer that he is *expected, wanted, and welcome!*

Come then, accept this invitation, get out your carpet-bag, your duster, and clean linen, bring out some of your hard-earned savings, invest in a railroad ticket to Indianapolis, take a week's vacation, that you are so much in need of, inhale the fresh and invigorating air, instead of filling your lungs with the vapors of collodion and poisons of your dark-room. If you are a member of the P. A. of A., so much the better, and if not, "join" and partake of its teachings, which will do you good, which will make us better photographers, and last but not least, it will make us all brothers in our photographic art.

Come then, come, and welcome.

JOSHUA SMITH,
President P. A. of A.

Editor's Table.

PICTURES RECEIVED.—From Mr. R. UHLMAN, examples of his dry-plate work and a splendid cabinet of the dear little McFARLAND girlies, whose baby pictures asleep in their coach created so much excitement at Prof. MAPES' lantern exhibition in Chicago, 1880. From Mr. G. N. COBB, Binghamton, N. Y., a cute group of baby chickens, and others of fine quality. From Mr. RAY D. CHAPMAN, New York, a variety of

cabinet and larger specimens. For pictures "made under a top-light only," as he says, they do him credit. He speaks anything but dryly, on another page. From Mr. M. H. ALBEE, Marlboro, Mass., pictures of some of his creditable and self-painted backgrounds. Mr. S. L. PLUMB, Portage, Wis., sends us some excellent cabinets made on emulsion plates. He does well. From Mr. GEORGE A. BREWSTER, Balla-

rat, Victoria, Australia, some creditable examples of his emulsion portraiture. Some instantaneous seashore scenes on his J. C. B. plates, by Mr. J. CARBUTT, are excellent. Made with the Morrison C. C. lens, 7-8 stop.

INFORMATION is wanted as to the whereabouts of Mr. GUSTAV WERNER, photographer. His parents live in Saxony, Germany. The last letter they received from him was from Oakland, Cal., Market Street Station, about two years ago. Mr. W. previously wrote very regularly. Any information will be thankfully received by Mr. R. GOEBEL, St. Charles, Missouri.

THE POITEVIN MEMORIAL.—We are authorized by the *Chambre Syndicale*, of Paris, to receive subscriptions for the memorial tablet of MONS. POITEVIN. In our last two issues we have, through our friend MONS. VIDAL, presented an account of the life-service of this great photographic scientist, and it would be a shame if America had no share in erecting a monument to his memory. We feel, therefore, free to call upon our readers for contributions, and shall be glad to forward anything that comes to the committee having the matter in charge, from whom we have official subscription blanks if any one desires them.

SCOVILL'S PHOTO-MICROSCOPIC EQUIPMENT is the latest addition to the wonderful variety of photographic appliances produced by the great firm named. Their circular instructs one how to use.

THE MALLINCKRODT CHEMICAL WORKS, St. Louis, Mo., so well known as the chief manufacturers of pure photographic chemicals in the West, ask attention to their new advertisement in our current issue. The gentlemen composing this firm have made for themselves a splendid reputation, yet still labor to secure greater purity and better quality of goods for our use. Ask your dealer for their goods.

A MOONLIGHT gelatine photograph on the J. C. B. plate, of a street view in Troy, N. Y., is very wonderful. It was exposed by Mr. J. F. COWEE, on the night of May 22d, from 9.45 P.M. to 2.15 A.M.

MR. O. PIERRE HAVENS, the well-known photographer, has become one of the proprietors of the *Screven House*, Savannah.

THE *Photographic Times and American Photographer* will be sent with this magazine, to one address, for \$5.50 per year, or \$2.75 for six months. The subscription price is \$7.00 when aken separately.

TWO MODEL CATALOGUES have just been issued by Mr. H. A. HYATT, proprietor of the Mound City Central Stock-Depot, No. 411 N. Fourth Street, St. Louis. One of these is 104 pages in size, nearly as large as this magazine, and describes and illustrates with prices the main beauties of the frame-moulding and velvet goods lines. The other, 132 pages with an appendix, is a most complete catalogue and price list, profusely illustrated by photographic requisites, and is a marvel in its way. The true way for the buyer is to secure these catalogues and find out where headquarters for the goods he has to buy really are. It takes a great deal of thought and skill to get out such catalogues, and we congratulate Mr. HYATT on their completeness as well as on his enterprise and ability. They are models well worthy of "The heart of St. Louis."

NOT COMPOSITION PICTURES.—The handsome studies by Mr. H. P. ROBINSON, given in our April issue, were not "composition" pictures, as we were led to suppose; no double printing whatever having been resorted to in order to secure such grand results. All the more credit to Mr. ROBINSON. The real beauty of the gelatine process is that its quickness enables one to get figures with great facility. Just how Mr. ROBINSON does this is told very graphically by Mr. H. BADEN PRITCHARD, editor of the *Photographic News*, in our current issue. Be sure you read it and refer back to the April pictures and study them.

THE *Studios of Europe*, by Mr. H. BADEN PRITCHARD, of London, is announced as ready by the SCOVILL MANUFACTURING COMPANY, at 50 cents per copy. It is well worth this low price, and is for sale by all dealers. No photographer can fail to obtain useful hints from it.

ITEMS OF NEWS.—Mr. S. ROOT, Dubuque, Iowa, has had the courage to photograph a lot of hailstones over five inches in diameter. SCOVILL'S Improved Dry-Plate Lantern, price \$2.00, is another very useful article for emulsion workers. Mr. C. F. MOELK, Edina, Mo., is praised by the local papers.

THE MOSS ENGRAVING COMPANY, 535 Pearl Street, New York, issue a very pretty illustrated circular, which shows how perfectly the photo-engraving process, which they practice, does its work. Even the smallest examples, one inch only in diameter, are finely done. Photographers could get a great deal of this kind of work to do if they tried.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

Ye Monthly Bulletin
of L. W. Seavey's Worksh.
No. 8 Lafayette Place N. Y.

NOTICE.

I shall display at the Indianapolis Convention a

LARGE VARIETY

OF NEW

BACKGROUNDS AND ACCESSORIES,

many of which have been prepared expressly for the occasion.

OPERATOR WANTED.—At Brand's studios, 210 & 212 Wabash Avenue, Chicago. Mr. Brand would like to correspond with a *strictly first-class operator*, with a view of a permanent situation in his gallery. There is no pleasanter city than Chicago for a residence, or finer gallery than Brand's to work in, to be found in the country. Good salary. Address, in confidence,
E. L. BRAND,
210 & 212 Wabash Ave., Chicago, Ill.

ARTISTIC TRADE WORK FOR PHOTOGRAPHERS.—We are prepared to finish all orders for India Inks, Water Colors, Crayons, Pastels, and Oil Portraits; also Solar and Contact Printing in the best manner at reasonable rates. Plenty of light, water, and the best artists in the country give us superior advantages. Send for our catalogue.
RILEY & BUNCH,
Lake City, Minn.

WANTED.—A lady retoucher; permanent situation given to the right person. Address
J. H. DAMPF,
Corning, N. Y.

WANTED.—An operator by the 1st of September one who can take charge of a good gallery and do No. 1 work. Address, with samples and photo. of self (no postal cards),
D. H. NARAMORE,
Hackettstown, Warren Co., N. J.

Do not fail to try Gilbert's improved retoucher at the convention. This instrument has only been out six months, and already there are over one hundred in use in the States of New York, Connecticut, and Massachusetts.

BACKGROUNDS PAINTED

BY

* W. F. ASHE *

Are found in most of the best galleries, not only in the States, but abroad.

NEW BACKGROUNDS AND ACCESSORIES

OF ALL KINDS ARE

BEING CONSTANTLY INTRODUCED.

W. F. ASHE, *Scenic Artist,*

106 Bleecker St., New York,

U. S. A.

FOR SALE AT A BARGAIN.—The leading gallery in Fond du Lac, Wisconsin. Everything first-class, and doing a splendid business. For a good workman this is a rare chance.

Address

C. CHADBOURNE,

Fond du Lac, Wis.

WANTED.—At once, a thoroughly competent and reliable operator and poser. Single man preferred. Address, for particulars,

B. FRANK SAYLOR,
Lancaster, Pa.



WILSON'S PHOTOGRAPHICS

Shows you how to group and pose children naturally and gives fine examples of work. Read the partial index herein. \$4.

No. 18. VIGNETTE PAPERS, WAYMOUTH'S. No. 18.

The old form of No. 18, Waymouth's Vignette Papers, oval, has been discarded, and a *new pear-shaped* style is now ready in its place. It is a beautiful piece of gradation and prints perfectly. Price \$1.25 per dozen. For sale by all dealers. See advertisement.

No. 18. NOW READY. No. 18.

S. G. NIXON, Portrait Artist, 813 Arch Street, Philadelphia, Pa. Solar enlargements finished in crayon, water color, and Indian-ink in true artistic style, and the likeness and expression faithfully preserved. Also small colored and Indian-ink work, etc. Terms moderate.

MAKE YOUR OWN ENLARGEMENTS.—The Patent Gem Solar Camera will print the finest enlargements on albumen, platinum, or plain paper. Only \$60. Send for reduced price-lists of larger instruments. D. A. WOODWARD,
Baltimore, Md.

NOTICE.

THE WONDERFUL EURYSCOPES and NEW PORTRAIT LENSES.

Just received, a large invoice of the above Lenses. Those who have not succeeded in getting them, will do well to send in their orders at once.

BENJAMIN FRENCH & Co.,
Boston.

ADDRESS WILLIAM McLAUGHLIN, 125 S. First Street, Brooklyn (E. D.), N. Y., Corresponding Secretary of Association Operative Photographers of New York, for operators, printers, and retouchers.

NOTICE OF REMOVAL.—Mrs. Clarke, Artist, late of 561 Druid Hill Avenue, Baltimore, begs to inform her friends and the photographic profession that she has removed to 2104 North 20th St., Philadelphia, Pa., where she will be happy to receive any commission for water-color painting. Terms, etc., on application to Mrs. Clarke, or to the office of the *Philadelphia Photographer*.

Wilson's Photographics. Ready. Price, \$4.00.

FOR SALE.—Photograph gallery in Denver, Colorado. The best location in the city. Light considered excellent. Instruments and accessories suitable to make first-class work. Price, \$1500. Reasons for selling satisfactory. For full particulars, call on or address

F. D. STORM, Photographer,
Cor. Larimer and 15th St.,
Denver, Col.

THE NEW

EURYSCOPE.

TRY this new lens, and you will never buy any large portrait lenses. Voigtlander & Son's No. 7, and the smaller sizes, are very quick-acting, but as regards large-sized plates, the Euryscopes are far superior for groups, panel pictures, and large heads.



WILSON'S PHOTOGRAPHICS

Is the most complete, thorough, photo-instruction book ever published. Second thousand in store. See advertisements. \$4.



WILSON'S PHOTOGRAPHICS

DEVOTES 58 pages to instructions in posing and lighting the figure. See advertisements. \$4.

GIHON'S OPAQUE.

As a rule, photographers are familiar with this most convenient article of gallery use, but, doubtless, there are some who still are unacquainted with it. It is just what it claims to be, and so announces on the wrapper of each box: "A dense, non-actinic paint, for stopping out imperfect backgrounds, or defective skies in negatives, for coating the inside of lenses or other brass work, etc." It is an invaluable article, and should have a place in every photographic establishment in the country, whether large or small. A photographer lately remarked to us, "GIHON'S Opaque is worth its weight in gold." This sounds rather exaggerated, as a cake of the compound is quite large, and of some weight; still it is most valuable, and its place can be filled by no other article now in the market.

That Opaque is very generally used, and that its use is daily growing was proved to us on a recent visit to New York. In the store of SCOVILL MANUFACTURING COMPANY, we noticed a large pile of these neat little packages, and on inquiry were assured that the demand was very large, and steadily increasing.

To those who have not tried opaque, we would say, send fifty cents to your stock-dealer and get a cake. You will wonder how you ever got along without it. Sold by all dealers.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

A lady would be obliged for an opportunity to attend reception-room or retouch negatives. Has had ten years' experience in the best rooms in Boston. Address Retoucher, care J. S. Wright, Tully, Onondaga Co., New York.

By an artist for crayon, pastel, and fine water coloring. Proofs at the convention. Schlickeisen, 378 New York Ave., Jersey City, N. J.

By a lady to attend reception-room; can retouch and assist in finishing. Address C. L. G., Box 316 Shamokin, Pa.

A superior crayon artist, retoucher, and colorist wants to make a permanent engagement with a first-class photographer. Address "X," care A. A. Marks, 691 Broadway, N. Y.

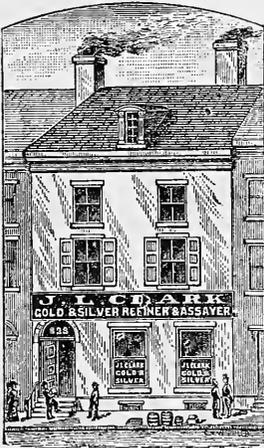
As operator in first-class gallery, in large city only. Is A No. 1 in dry- and wet-plate work, posing and lighting; single man of unexceptionable character and good address. For further particulars, address "Pyro," care of Editor.

As operator, retoucher, or printer; would take charge of a gallery. Address C. C. Kenney, 12 Tower Road, Halifax, N. S.

A first-class retoucher desires a situation; samples shown; none but first-class galleries need apply. Address Retoucher, care of F. S. Hargrave, Williamsport, Pa.

As general assistant; am a good retoucher. Address, stating wages, Photographer, 2018 Vine St., Philadelphia, Pa.

By a young unmarried man, as operator and position artist; understands the business thoroughly, and can do first-class work; samples furnished; New York State preferred. Address Operator, Box 1136, Altoona, Pa.



J. L. CLARK,
GOLD AND SILVER REFINER,
 ASSAYER AND SWEEP-SMELTER,
 REMOVED TO
 823 Filbert St., Philadelphia, Pa.

RETURNS MADE IN STRICTLY PURE CHEMICALS.

REFERS TO, BY PERMISSION:

JOHN CARBUTT, Dry Plate Manufacturer, Philada.

WM. H. RHOADS, Photographer and Artist, Philada.

GILBERT & BACON, Photographers and Artists, Philada.

WM. H. CLIFFORD, Photographer and Artist, Philada.

ALBERT MOORE ^{THE} **SOLAR ENLARGER,**
 THE LONGEST, LARGEST, AND BEST.
 828 Wood Street, Philadelphia.

MALLINCKRODT CHEMICAL WORKS,

Successors to G. MALLINCKRODT & CO.,

ST. LOUIS, MO.,

MANUFACTURE A FULL LINE OF

Pure Photographic Chemicals,

AMONG THEM

PURE ACETIC ACID; CONCENTRATED AMMONIA; IODINE, Resublimed; CYANIDE OF POTASSIUM; PYROGALLIC ACID, Resublimed and very pure; IODIDE AND BROMIDE OF AMMONIUM, CADMIUM, CALCIUM, &c.; SULPHURIC ETHER, highest concentration, free from Acid and absolutely pure; CHLORIDE OF GOLD CRYSTALS, extra dry and free from excess of Acid; NITRATE OF SILVER CRYSTALS, dry, neutral, and absolutely pure; CHLORIDE OF GOLD and SODIUM; NEUTRAL OXALATE OF POTASSIUM.

We ask the attention of Photographers to the superior quality of our Chemicals, and request a trial of them. Special inducements to dealers and large purchasers.

Specify "MALLINCKRODT'S" when ordering from Stock Dealers.

HEARN'S PRACTICAL PRINTER,

SECOND EDITION. *A complete Manual of Photographic Printing on Plain and Albumen Paper and on Porcelain.*

The Printing-room.
The Silvering- and Toning-room.
The Drying-room. [Paper.
The Positive Bath for Albumen
Silvering the Albumen Paper.
Drying the Paper.
Fuming the Paper.
Preservation of Sensitive Albumenized Paper; Washed Sensitive Paper.
Cutting the Paper.
The Printing-boards.
Keeping Tally.
Vignette Printing-blocks.
Treatment of Negatives before Filling of the Boards. [Printing.
Fitting Vignette-boards to the Negatives for Printing.
Medallion and Arch-top Printing.
Fancy Printing.
Vignette Cameo and Medallion Vignette Cameo Printing.
Printing the Bendann Backgrounds.

CONTENTS.

Printing Intense Negatives.
Printing Weak Negatives.
A Few More Remarks about Printing—Treatment of Broken Negatives.
Cutting the Prints.
Washing the Prints.
Acidifying the Prints.
Toning Baths.
Artistic Toning.
Fixing Baths and Fixing Prints.
Washing the Prints.
Mounting the Prints.
Finishing the Prints.
Salting the Paper. [Paper.
Positive Baths for Plain Salted Silvering Plain Salted Paper.
Drying, Fuming, and Cutting the Paper. [Printing.
Treatment of the Negatives before Printing-in False Backgrounds.
General Plain Paper Printing.

Waymouth's Vignette Papers.
Further Treatment of the Prints after Printing.
Causes of Failures in Albumen and Plain Paper Printing.
Selection of the Porcelain Plates.
Cleaning the Porcelain Plates.
Albumenizing the Porcelain Plate
Making the Porcelain Collodion.
Coating, Fuming, and Drying the Plates.
Porcelain Printing-boards.
Placing the Sensitive Plate on the Board for Printing.
Printing Vignette Porcelains.
Printing Medallion Porcelains.
Washing the Porcelains.
Toning the Porcelains.
Fixing the Porcelains.
Final Washing of the Porcelains.
Drying and Tinting the Porcelains.
Varnishing the Porcelains.
Causes of Failures in Porcelain Glace Photographs. [Printing.

Over 50 Wood Cuts and an elegant Panel Portrait by G. M. Elton, embellish it. Mailed, post-paid, on receipt of \$2.50, by any dealer, or

EDWARD L. WILSON, Photo. Publisher, 912 & 914 Chestnut St., Philada.

PHOTOGRAPHIC MOSAICS, 1882.

PAPER, 50 CENTS; CLOTH BOUND, \$1.00.

Although fifteen hundred more copies than usual were issued of this little year-book, for 1882, they are

NEARLY ALL GONE,

And parties desiring to secure a copy should order at once of their Stock-dealer, or

EDWARD L. WILSON, Editor and Publisher,

912 & 914 Chestnut Street, Philadelphia.

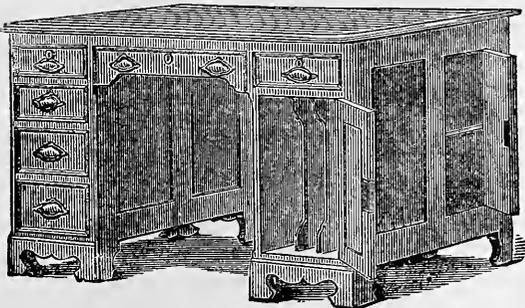
OFFICE DESKS

ALL KINDS AND SIZES.

L. B. M'Clees & Co.

MANUFACTURERS,

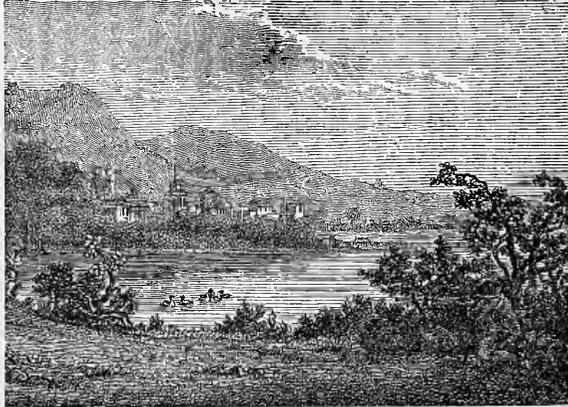
1026 Arch Street, Philadelphia.



The Book for the OUT-DOOR WORKER Specially. Now is the time to read

ROBINSON'S Pictorial Effect in Photography.

SHOULD BE READ BY EVERY
NEGATIVE MAKER



PRACTISING IN AND OUT OF
DOORS.

CONTENTS.

CHAP.	CHAP.
I. Introductory.	XVII. Portraiture.
II. The Faculty of Artistic Sight.	XVIII. Portraiture—The Management of the Sitter.
III. Balance of Lines and Contrast.	XIX. Portraiture—The Pose.
IV. Balance—Example.	XX. Portraiture—Groups—Proportion.
V. Balance—Examples—(continued).	XXI. Backgrounds.
VI. Unity.	XXII. Accessories.
VII. Examples—Expression.	XXIII. Some Old Notions Touching Portraiture.
VIII. Practice—The Choice of a Subject.	XXIV. Chiaro-oscuro.
IX. Simple Rules.	XXV. Chiaro-oscuro—Detail or Definition.
X. Figures in Landscape—Truth.	XXVI. Chiaro-oscuro—Various Arrangements of Light and Shade.
XI. The Sky.	XXVII. Chiaro-oscuro—Various Arrangements of Light and Shade (continued).
XII. The Legitimacy of Skies in Photographs.	XXVIII. Chiaro-oscuro—Breadth.
XIII. The Composition of the Figure.	XXIX. Chiaro-oscuro—Portraiture—The Studio.
XIV. Pyramidal Forms.	XXX. Chiaro-oscuro—General Considerations.
XV. Variety and Repetition.	XXXI. Conclusion.
XVI. Variety and Repetition (continued)—Repose—Fitness.	

No one can study this excellent work without being better able to pose and compose his subjects, and to light them more artistically. Those who are unskilled comparatively, hardly realize how much there is to learn that is of value to them. This book will open their eyes and enlighten them, if they can but see when their eyes are open.

IT IS THE MOST POPULAR PHOTO. WORK EVER PUBLISHED IN EUROPE.
IT IS THE BOOK WANTED NOW BY THE AMERICAN PHOTOGRAPHER, TO POST HIM ON THE ART OF PHOTOGRAPHY.

Cloth, \$1.50; Paper, \$1.00. Illustrated.

"Mr. H. P. Robinson's *Pictorial Effect in Photography* is a gem, the *par excellence* of all photographic books. Its pages are full to a letter of choice and valuable instruction. If there is one who has not read it I would advise him to do so at once."
—G. F. E. PEARSALL, *Brooklyn, N. Y.*

WHAT ITS READERS SAY:

"*Pictorial Effect* is a success."
M. H. ALBEE,
Marlboro, Mass.

"I would advise all photographic art students to obtain a copy of Mr. H. P. Robinson's *Pictorial Effect in Photography*, one of the best and most complete works ever published on the subject for the benefit of photographers. Read it over and over. Every page teaches a grand lesson."
—JAMES MULLEN, *Lexington, Kentucky.*

EDWARD L. WILSON, Publisher, 912 & 914 Chestnut St., Philada.

THE PHOTOGRAPHER TO HIS PATRONS

Is a neat little leaflet of twelve pages of the size of the four pages below. It tells your patrons what you want them to see on **Photography as an Art; When to Come; How to Come; How to Dress; How to Behave; and about Children, Business, Frames, Copying, Coloring, and Prices.**

"THERE'S MILLIONS IN IT."

PHOTOGRAPHERS OF AMERICA:

In these times of competition we all want something to *stir up business*. It is believed that no means of advertising, half so good, was ever offered to photographers, as that acceptable little leaflet,

"The Photographer to his Patrons."

Its utility and usefulness are proven by the fact that it has been demanded and translated into Spanish and German; that over

1,000,000 copies have been sold,

and that hundreds of photographers have written to the author, testifying to its great value as a positive *business-bringer*.

I take the liberty of sending you a copy, and ask you, *for your own interest*, to read it carefully all through. I have, since its publication, issued two other works of a similar character—*Pretty Faces*, at half the price; and *Something New*, at the same price. But the choice still seems to be for the old favorite, and I am still supplying it continually. The sample herewith is of a lot lately printed; and I desire to call your especial attention to a method which will secure you all the advantages of this work as an

(i)

the expense of hiring a man and team to distribute then in adjoining towns. I shall, undoubtedly, want more when these are gone. I got \$13.50 for the advertisements."

We endeavor to get them up in attractive and elegant style; and in order to protect those who use them in the enjoyment of them, we have *copyrighted* them, and trust no one will attempt their degradation by cheap and badly-made copies of them. We can print them as cheap as any one can for the quality, and have

RECENTLY REDUCED THE PRICES

to the following scale:

500 copies,	.....	\$9 00
1000 "	.....	15 00
3000 "	.....	36 00
5000 "	.....	50 00

Some photographers have had as many as 25,000, using them continually. Please look into the matter, and send on your orders for all seasons.

We supply, free of charge, several beautiful fancy cuts for the covers; but where three of the pages are covered with other matter, the style of the present sample is the neatest. You can have your own choice.

As already said, these leaflets are used all over the country, often by our leading photographers, from some of whom were received the following testimonials.

(iii)

advertisement, and yet cost you little or nothing. *The four pages of the cover are yours, to use for what you please.* You only need the first page for yourself. Get advertisements from your neighbors, at a proportionate figure, for the rest, and your leaflets cost you only the expense of distribution.

Messrs. Albert & Son, Alexandria, La., have seven advertisers, another recently had eight. From six of them he got \$1.75 each, and from two, \$2.25 each; making \$15—the cost of 1000 leaflets. Examine the copy herewith.

Mr. H. C. Norman, Natchez, Miss., who has adopted the same plan, writes, viz.: "As an advertising medium the leaflets have no equal. Two hours secured me seven advertisements, amounting to \$17.50, leaving me \$5.00 balance for express charges; thus securing me 1000 leaflets for nothing. With a little energy any photographer can secure cards enough from his friends to pay for all the leaflets he requires, and he should not be without them. I have not only seen, but felt, the result of using them."

Mr. L. B. Truax, Swanton, Vt., writes, viz.: "The leaflets have been received and prove a decided benefit to me. I consider them the best advertising medium I have yet found. The merchants who advertised on the covers seem to be of the same opinion; one of whom went to

(ii)

KEEP YOUR EYE ON THIS!



TESTIMONIALS:

- "Send 5000 in English and 2000 in German." Jno. A. SCHOLTEN, St. Louis.
- "Let me have a lot as soon as printed."—J. F. RYDER, Cleveland, O.
- "It works satisfactorily in every way."—A. N. HARDY, Boston. (Mr. Hardy has had 4 or 5 lots.)
- "They are the best business-cards a photographer can have."—T. S. ESTABROOKE, N. Y.

EDWARD L. WILSON, *Photo. Publisher*,
912 & 914 Chestnut St., Philada.

(iv)

DEALERS' DIRECTORY.

The following houses are to be recommended as the best for photographers in their localities.

S. T. BLESSING, New Orleans, La.	Douglass, Thompson & Co. "Great Central," Chicago, - - - - Ill.	JAMES H. SMITH, Quincy, Ill.
H. A. HYATT, Mound City Photo. Stock House, 411 North Fourth St., St. Louis, Mo.	D. J. RYAN, Savannah, Ga.	J. C. SOMERVILLE, St. Louis, Mo.
SCOVILL MANF'G CO., 419 & 421 Broome St., New York.	D. TUCKER & CO., Buffalo, N. Y.	BLESSING & BRO., Galveston, Texas.
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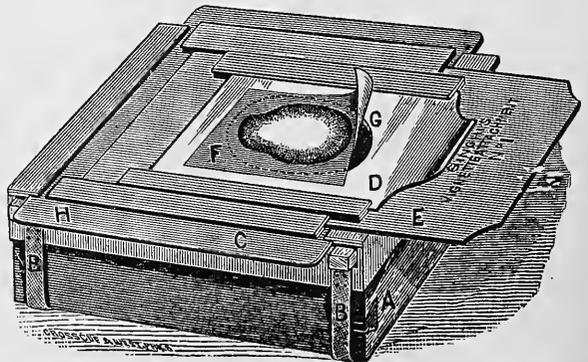
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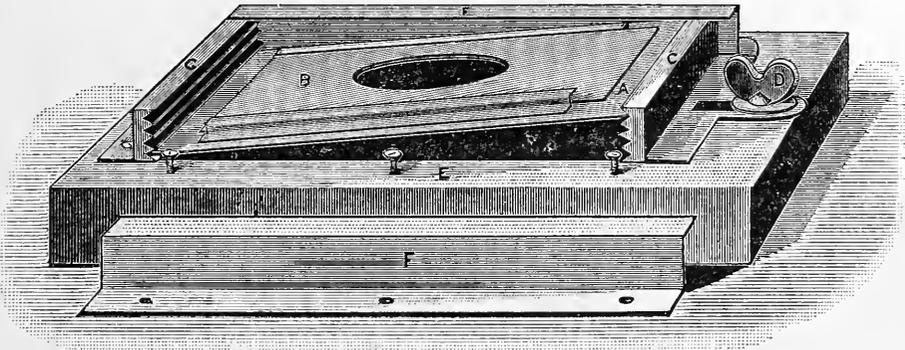
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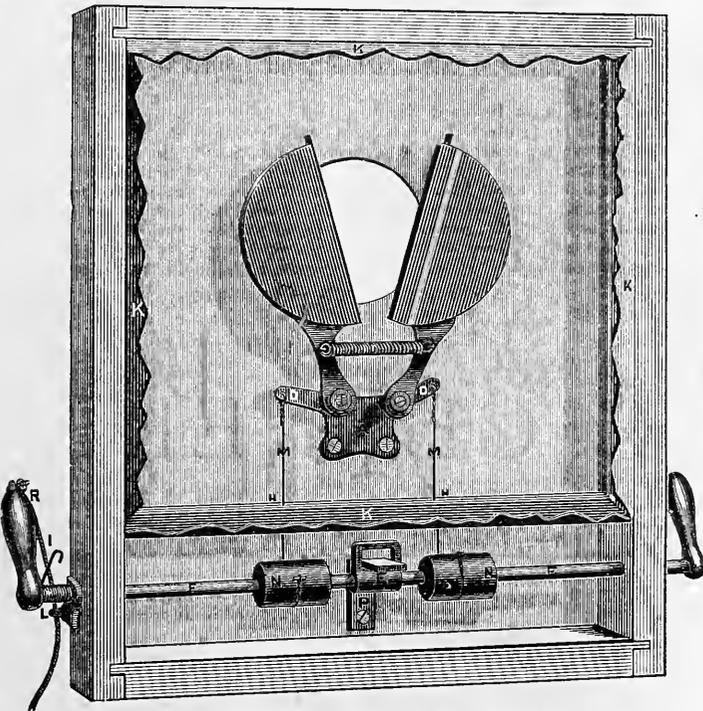
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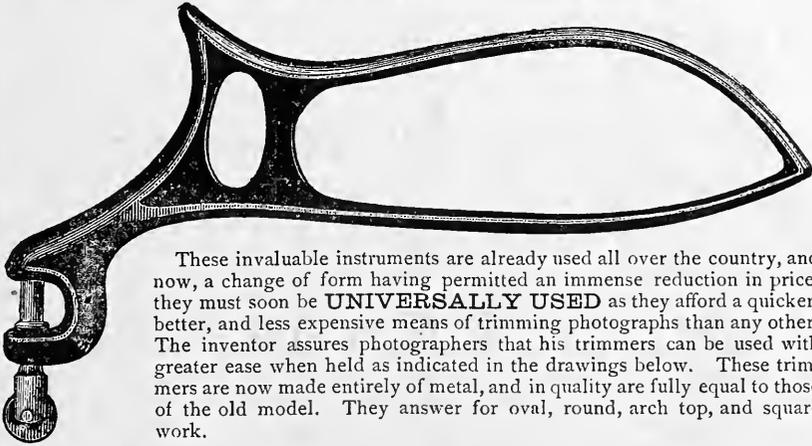
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2 $\frac{1}{2}$ x 3 $\frac{1}{4}$	3 $\frac{1}{2}$ x 4 $\frac{1}{4}$	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$	7 x 9
2 $\frac{1}{2}$ x 3 $\frac{3}{8}$	3 $\frac{1}{2}$ x 5 $\frac{1}{8}$	5 $\frac{3}{8}$ x 7 $\frac{3}{8}$	7 $\frac{1}{2}$ x 9 $\frac{1}{2}$
2 $\frac{1}{2}$ x 3 $\frac{5}{8}$	4 x 5	5 $\frac{3}{4}$ x 7 $\frac{3}{4}$	7 $\frac{1}{2}$ x 9 $\frac{1}{2}$
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2 $\frac{1}{4}$ x 3 $\frac{3}{4}$	2 $\frac{5}{8}$ x 3 $\frac{7}{8}$	2 $\frac{7}{8}$ x 4 $\frac{5}{8}$	4 $\frac{1}{8}$ x 5 $\frac{7}{8}$
2 $\frac{1}{2}$ x 3 $\frac{1}{8}$	2 $\frac{3}{4}$ x 4 $\frac{1}{4}$	3 $\frac{1}{8}$ x 5 $\frac{1}{4}$	3 $\frac{7}{8}$ x 6
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7. *Cabinet, lady ($\frac{3}{4}$ length).*
8. *Cabinet, lady (bust).*
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SUMMARY OF CONTENTS.

	PAGE		PAGE
Obituary,	257	Second Day—Morning Session,	264
Our Report,	257	Second Day—Afternoon Session,	276
Proceedings of the Third Annual Convention of the Photographers' Association of America, 257		Our Picture,	287
		Editor's Table,	288

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INDEX PAGE FROM WILSON'S PHOTOGRAPHICS.

- Intensifier, The.
 Ammonia and Mercury.
 Bichloride of Mercury.
 Ferrid Cyanide.
 Iron and Acid.
 Perchloride of Iron.
 Permanganate of Potash.
 Pyrogallie Acid.
 Schlippe's Salts.
 Silver and Acid.
- Interior Work.
 Kaolin, Rectifying Printing-Bath with.
 Landscape Apparatus.
 Photography.
 Views, Formula for.
- Lantern Slides and Enlargements.
 Leaking of the Glass Studio.
 Lens or Objective, The.
 Lenses, Angle of View Possible with.
 Choice of.
 Forms of.
- Light and Accessories.
 and Shade, or Chiaro-Oscuro. Reflected.
 Lighting, Rembrandt's Style of.
 "Lightning" Processes.
 Linen, Printing on.
 Lubricating the Prints.
 Managing the Model.
 Manipulations, The.
 Manipulatory Miseries.
 Marbled Appearance of the Paper.
 Red Lines on Prints.
 Measles in Prints.
 Measles or Mottles on Prints.
 Measuring, Metrical.
 Medallion Printing.
 "Megatypes."
 Metallic Spots in Prints.
 Model, Study the.
 Mounting and Finishing.
 Paste.
 without Cockling.
 Nature, Study.
 Negative, A Generally Wretched.
 Negatives, Black and White.
 Defects in.
 "Doctoring" for Printing.
 for Solar Printing.
 Preserving of.
 Printing Dense.
 Printing Weak.
 Removing Stains from.
- Network, Formation on the Film of.
 Objective or Lens, The.
 Objects, Distances of.
 Only Lines in Negatives.
 Opaque for Negatives, Gihon's.
 Outside Photography.
 Chemistry of.
 Work, Art Principles in.
 Work, Clouds in.
 Work, Exposure.
 Work, Keeping Plates for.
 Work, Tent for.
- Over-Exposure of Bromo-Gelatine Plates.
 Paper, Cockling of the.
 Drying the.
 Expansion and Contraction of.
 Fuming the.
 Keeping White the.
- Marbled Appearance of the.
 Sensitizing the.
 Woolliness of the.
- Perspective.
 Photography, Landscape.
 Phototypes, Basis for.
 Exposure of the Negatives for.
 Husnik's Substratum for the Plates for.
 Inking the Films for Printing.
 Plain Paper, Printing on.
 Platinotypes, Sensitizing the Paper for.
 Cleaning and Washing.
 Development of.
 Exposure of the Paper.
 Porcelain, Printing on.
 Posing, Suggestions about.
 Preserving Negatives.
 Printing, Art in.
 by the Solar Camera.
 Dense Negatives.
 Development Process of.
 Flat Negatives.
 Medallions.
 on Albumen Paper.
 on Various Surfaces.
 Stereoscopic Views.
 Temperature in.
 Vignettes.
 Weak Negatives.
- Printing-Bath, The.
 Decolorizing the.
 Strengthening the.
 Printing-Room, The.
 Prints, Acidifying the.
 Blistering of the.
 Burnishing the.
 Defectively Toned.
 Drying the.
 Encaustic Paste for.
 Fading of the.
 Fixing.
 Glaçe.
 Imperfect Washing of the.
 Lubricating.
 Measled or Mottled.
 Metallic Spots in.
 Refuse to Tone.
 "Spotting" the.
 Touching Out.
 Treatment with Alum of the.
 Trimming.
 Warm-Water Washing of.
 Washing in "Lead Water."
 Washing the.
 With Red Marbled Lines.
 Yellowness of the.
- Productions of Photography, The.
 Public, Relation of the Photographer to the.
 Pure Whites in Prints.
 Quick-Acting Processes.
 Red Patches on Prints.
 Reducing Process for Solar Negatives.
 Reinforcing the Negatives.
 Rembrandt's Style of Lighting.
 Removing Stains from Negatives.
 Retouching Bromo-Gelatine Plates.
 Process, Solar Negative.
 the Negatives.
 Reversing the Negative, Apparatus
 Robinson's Print Trimmer. {for
- Screens and Curtains.
 Sensitizing Paper for Platinotypes the Paper.
 the Plate.
 Shortening the Exposure.
 Silver Iodide, to make.
 Saving, Method of.
 Solutions, Volumetric Test of.
 Sky and Clouds, The.
 Softness in Lighting.
 Solar Camera Printing.
 By Artificial Light.
 Camera Printing Negatives, re touching.
 Negative Reducing Process.
 Retouching Process.
 Stains from Negatives, Removing on the Hands.
 Stereoscopic Views, Printing.
 Negatives Preparing.
 "Stop," Use of the.
 Streaks and Stains in Negatives.
 Strengthening Gelatine Emulsion Plates.
 the Printing-Bath.
 Studio, the Glass.
 Construction of the.
 Curtains.
 How to Build a.
 Leaking of the Glass.
 with Curved Light.
 Working Plans for Construction Subject, Choice of.
 Treatment of.
- Table for Converting Centigrad into Fahrenheit.
 for Converting Cubic Centimetre into Ounces, etc.
 for Converting Metrical to Troy Millimetres into Inches, etc.
 Temperature in Printing.
 Tent, The Dark.
 Testing of Silver Solutions.
 Toning the Prints.
 Bath, Treatment of the Gold.
 Defective.
 Solutions.
 Touching out Prints.
 Transfers, Collodion, Iodizers for.
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 Paper, Waymouth's.
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 Wastes and their Worth. {fo
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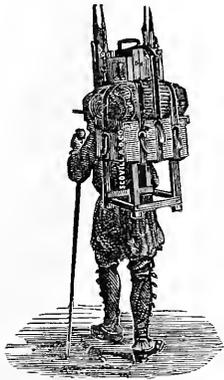
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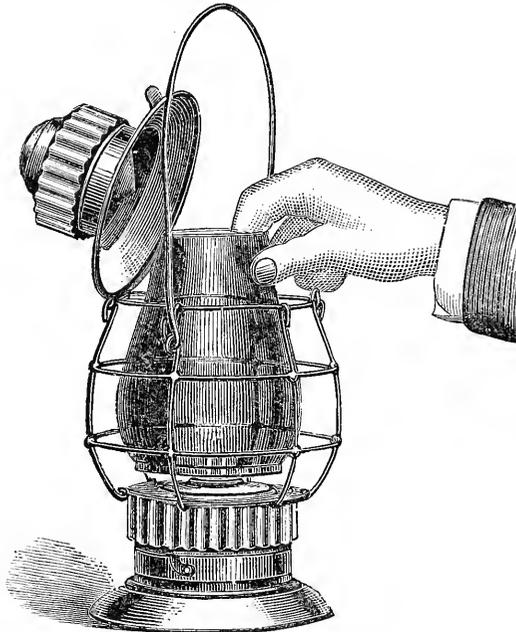
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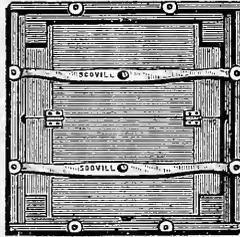
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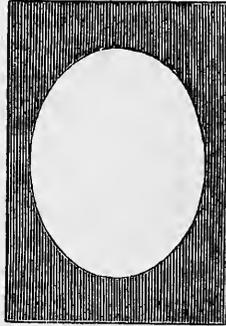
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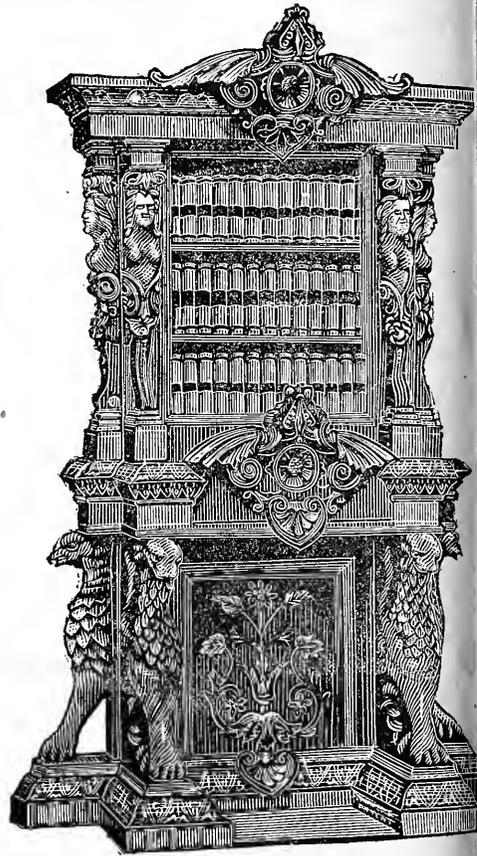
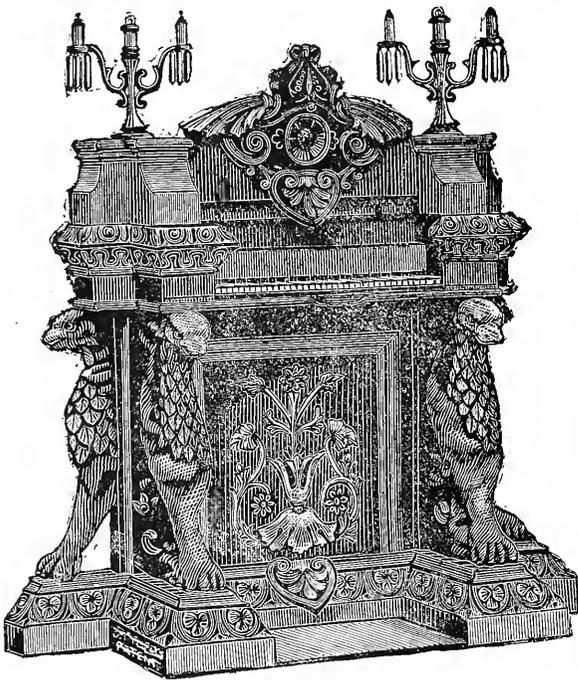
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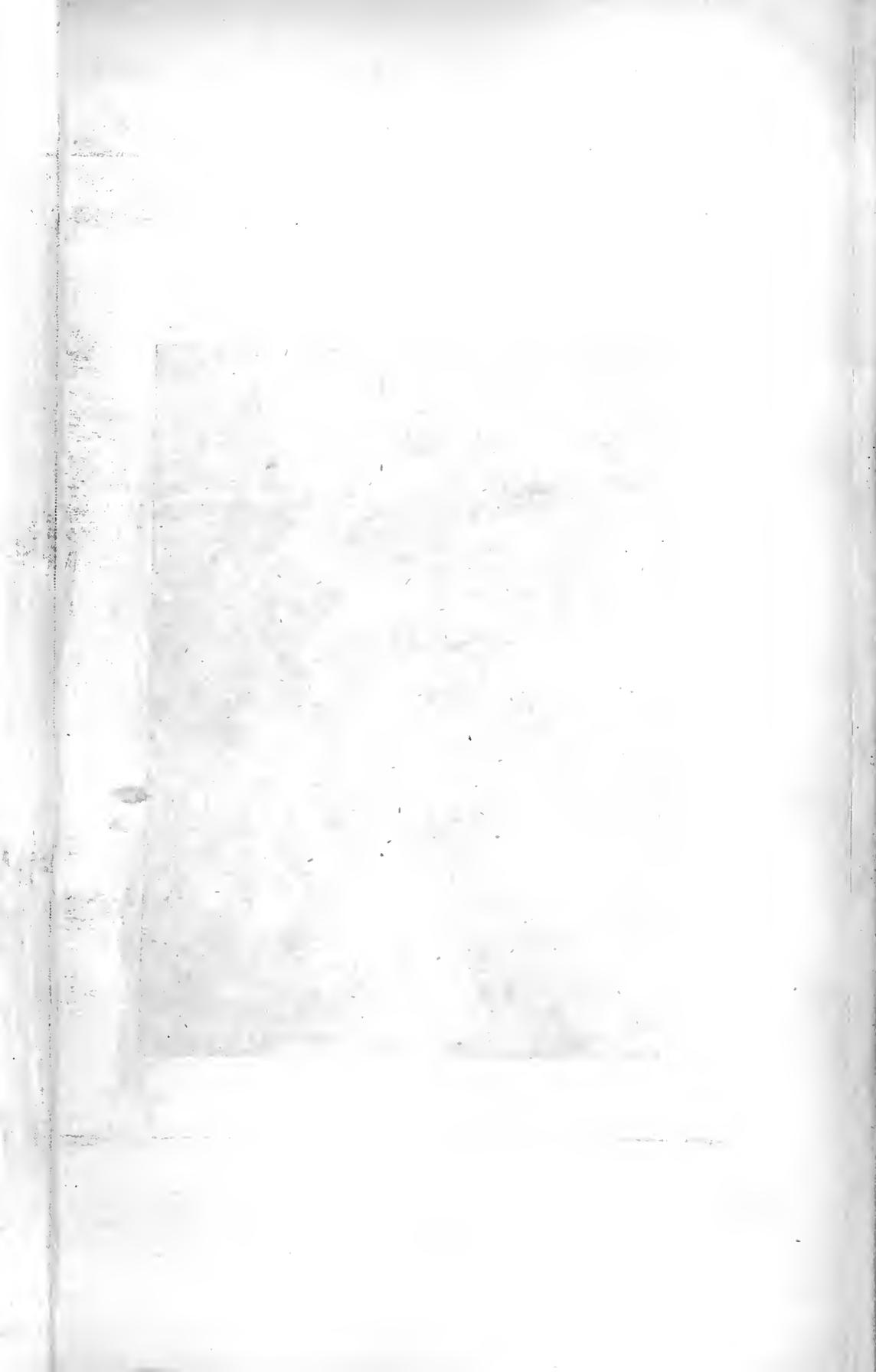
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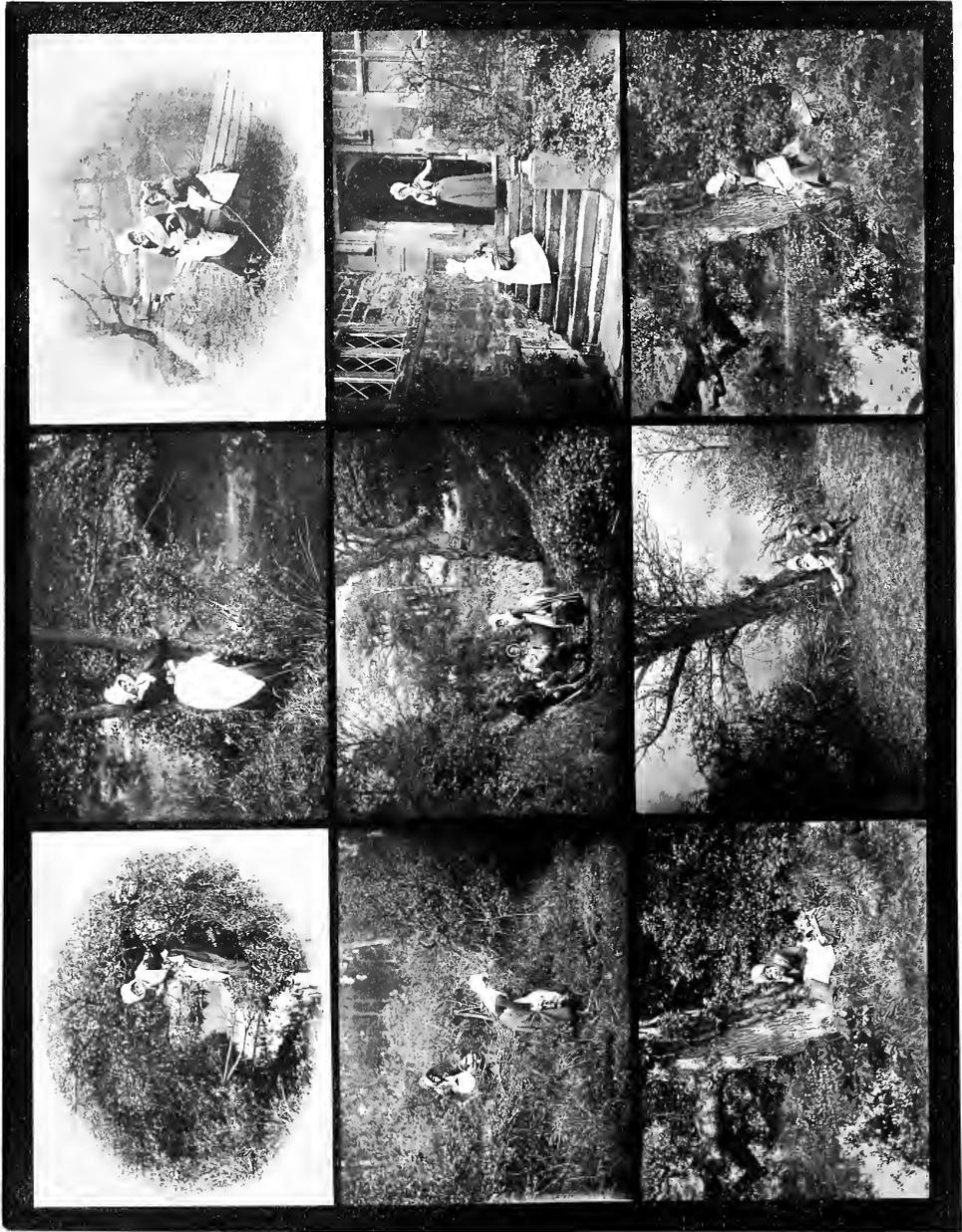
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Philadelphia Photographer.

EDITED BY EDWARD L. WILSON.

Vol. XIX.

SEPTEMBER, 1882.

No. 225.

OBITUARY.

OUR old friend, Mr. J. H. Fitzgibbon, editor of the *St. Louis Practical Photographer*, died at Xenia, Ohio, while on the train coming east from the Indianapolis Convention. This fills us all with sorrow. He seemed to be in unusual good health and spirits at the Convention. As we go to press unusually early, we have no particulars, but in our next issue we shall give all, with a sketch of his useful life. And in memory of that useful life, ought not we to join together and contribute a fund that will enable his relatives to erect a proper monument to his honor? More anon.

OUR REPORT.

It was our intention to report the whole of the proceedings of the Indianapolis Convention in our present issue; but we cannot overlook the fact that as many of our readers would have cause to complain of such a course as there would be to approve of it. Therefore, although the whole of the matter is in our hands, we have concluded to give our readers now only a *part*, and the balance next month. Even this plan compels us to ask the patience of some of our correspondents, whose communications must be laid over, which, with some notes of our own, wait. Growth and strength will surely come to the P. A. of A., as a result of the Convention, which was "a success" in many ways.



PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

PROCEEDINGS OF THE THIRD ANNUAL CONVENTION HELD IN INDIANAPOLIS, INDIANA, AUGUST 8TH, 9TH, 10TH, AND 11TH, 1882.

The Third Annual Convention of the Photographers' Association of America, was opened promptly at ten o'clock on Tuesday, August 8, 1882, by the President, Joshua Smith, of Chicago, in the Park Theatre, at Indianapolis, Indiana.

There were about three hundred members present.

On motion of Mr. Pickering, three cheers were given for Governor Porter, of Indiana.

THE PRESIDENT.—Pursuant to the adjournment at the last meeting in New York, this Association meets here to-day in Indianapolis, and I now call you to order.

Mr. John Cadwallader, Secretary of the Association, now spoke as follows:

Ladies and Gentlemen and Fellow-Photographers: I have now to express to you the peculiar pride which I feel and the great pleasure I enjoy, to be one of this large and intelligent assembly, every member of which I know to be a fellow-photographer. You have come from the south, from the north, from the east and from the west; some of you have travelled many hundred miles; all by one common impulse; all with one common purpose—to learn to become better photographers, and to help elevate the art to which your lives are devoted. Before entering into the discussions in which you are to participate, it will be fitting that a few words of welcome shall be spoken to you in this first national assembly of photographers at the capital of the great State of Indiana. It is with great pleasure that I introduce Governor A. G. Porter, who will extend to you that welcome.

After the applause which followed the mention of his name, Governor Porter, of Indiana, arose and made the following address:*

Gentlemen of the Photographers' Association of America: It was not until half-past ten o'clock last night that I was informed that the pleasant duty would be committed to me, of welcoming to the capital of the State, this intelligent and important Association. The shortness of the notice will not lessen the cordiality of the welcome, though happily it will shorten the length of the salutation. I know of no association, among all the associations that honor America, that is more interesting than one, the object of which is to develop the possibilities of photography. When we look at the picture, as given us by Daguerre, and now at the delicately toned print of even the ordinary photographer, we cannot but be struck with the extraordinary progress of the art, and there is scarcely a year in which some new discovery is not made that indicates further astonishing possibilities. How little a thing may produce great results! Take the dry plate: how trifling a thing it might seem to one unfamiliar with the science of photography, yet it has laid the foundation for instantaneous photography, by which the image

of an object (that would otherwise fly from our vision in an instant) may be caught and retained forever. By it you catch the image of a trotting horse in the race, and of birds in their flight, and of the heavenly bodies while in their most rapid movements. By its aid the amateur, going into the woods, takes his pictures of natural objects with almost the ease of an experienced photographer, and without any of the burdensome equipments with which he used to be provided.

Witness the development of photography from the mere art of portrait taking. There is rarely an astronomical or a botanical expedition that does not take with it photographers; there is hardly a microscopical investigation that does not avail itself of your art; and by taking images of heavenly bodies and recording them, the astronomer is able to investigate with ease and at his leisure, objects that otherwise would instantly escape from his vision. We are now able, by the aid of improvements in the microscope, to take the images of animalcules so minute, that a few years ago they would have eluded sight; and we can record by the aid of photography the appearance of these bodies so that the entomologist may be greatly assisted in investigations into the development of life from lower to higher forms.

It is amusing sometimes to observe the skill with which invention is employing the art. I saw a few days ago that you have what is called "the photographic gun," by which the gun is, if I may so speak, aimed at an object, the trigger pulled, and the effect is that which you have sometimes seen described in the case of old guns, where it is greater in the breech than in the muzzle [Applause], for in this instance you pull the trigger at the object and it shoots its image at you.

I have myself been a witness to some things exceedingly interesting in photography in the course of legal investigations. In trials for forgery important assistance has been rendered by it, in showing erasures that the most skillful experts have been unable to detect in examining the papers copied. I recall that when I was First Comptroller of the U. S. Treasury, a young man came from Texas to my office to see if his father, who was dead, had become a surety on a public bond. The family had persuaded themselves that he had not, and that his name on the instrument was forged. He asked me if the instrument could not be sent to his home in order that it might undergo the inspection of persons familiar with his father's handwriting. I told him that it was impossible to allow the paper

* Revised after delivery, in person, by Gov. Porter, for the *Philadelphia Photographer*.

thus to be taken off the official files, but that I would furnish him a photographic copy, and I thought from this it could be learned whether the signature was forged or genuine. He took the photographic copy home, and in a few days wrote to me that the family had examined the copy and had no doubt that the signature was genuine. The government was saved a law suit and the family much expense by a controversy being thus quietly settled.

The economist is interested in your art also. Statesmen often try by laws to assist the interests of labor. But science is a better assistant than law. Who would have thought when Daguerre made his discovery, no doubt deemed by many to be little and unimportant, of taking a picture upon a prepared plate, that in less than thirty years many thousands of persons would be employed in this new industry? There is now no village or hamlet in the land in which there is not a photographer. Many thousands of men that otherwise might not have been provided with profitable employment have been supplied with it through this interesting art. Not simply, too, the men who are directly concerned in it derive profit from it, but the chemist, whose business is increased by a new use for chemicals; and the manufacturer, whose business is increased by the manufacture of the instruments. It would be safe to say, I am quite sure, although I have never gone into a minute examination of statistics, that more than a hundred thousand persons find employment in the United States, either directly as photographers or as manufacturers of photographic instruments and supplies.

It is always interesting to discover a new industry and to see how, though inventions may sometimes seem to throw men out of employment, they more than make up the loss by discovering and developing new industries, and multiplying human desires. I am glad to have been honored with an invitation to salute you. I need not wish you a pleasant session. The interest you feel in one another, and in the important subjects that will be before you for discussion, give assurance that your session will be such a one. I hope that your meeting will be extremely useful to you in your profession, and, above all, that it may be of inestimable advantage to science.

THE PRESIDENT.—Mr. Governor, in the name of the Photographers' Association of America, I thank you for your kindly welcome. In the name of photography, I thank you; in the name of all the members pres-

ent and of photography in this country and abroad, I thank you. I hope that this Association's well-being in this city will show a grand improvement and advance, and that the members will show themselves worthy of the welcome just offered; and I would further say that I thank you for the welcome to this city, and above all I thank you for your welcome to this glorious State of Indiana.

THE PRESIDENT.—Gentlemen, I believe that the first thing on the programme will be the calling of the roll of members. What is your pleasure in this regard?

MR. SCHLEIER.—I move that we postpone the calling of the roll until to-morrow. Agreed to.

THE PRESIDENT.—The next business will be the reading of the minutes of the last meeting.

MR. WILSON.—I move that the reading of the minutes be dispensed with; it would be rather a long job to read them. Agreed to.

THE PRESIDENT.—The reports of the special committees are in order; are there any of the members of those committees present?

MR. J. TRAILL TAYLOR, Chairman of the Committee on the Progress of Photography.—I am under a slight disadvantage, Mr. Chairman. I thought to-morrow was to be the time at which this report was to be submitted. I have not taken action along with my co-laborers in this matter, so you will have to hold me personally responsible for the report, and especially as I learn from Mr. Van Loo and others, some of the members live many thousands of miles away from here, hence it would be inexpedient to consult them in regard to it.

Mr. Taylor then read his report as follows:

REPORT ON PHOTOGRAPHIC PROGRESS.

An element of difficulty in presenting an epitome of photographic progress in America arises from the reticence displayed by so many in the profession in communicating to their brethren, through public channels, any discoveries of new or improvements upon recognized methods of working which may have been made by them. A report of progress, therefore, must necessarily be confined to a *resume* of what has been published by the brethren elsewhere, whose readiness to give freely to the world the results of their re-

searches and investigations we acknowledge with readiness and thankfulness.

The *wet collodion process* retains pretty nearly the same position it has occupied for several years. The superior sensitiveness of plates prepared with gelatine emulsion is tending gradually to the withdrawal of collodion in favor of the later entrant. In many, if not most, of the leading studios of Europe the collodion process is now scarcely practised.

It is matter for regret that a process replete with so many beauties of both a chemical and mechanical nature should be allowed to remain with the stigma of inferiority in any respect attached to it.

It was by the thoughtful experiments of a London hat manufacturer (a photographic amateur) that the key to the great sensitiveness of gelatine emulsion was discovered, and the modern practice of photography thus revolutionized. There is no inherent reason for believing that the collodion process may not, by some other *Bennett*, be subjected to similar experiments and investigations, with results even in advance of its present rival. Beaten tracks must, however, be departed from, and advantage be taken of the knowledge of the conditions of sensitiveness acquired during investigations with gelatine emulsion, in order to divert collodion into an analogous direction. It is already on record that collodion is capable of yielding, and has yielded, a degree of sensitiveness very greatly in advance of that obtained by the system initiated more than a quarter of a century ago, and which is still, without any modification worthy of the name, practised in our galleries in 1882. Let each one who has time and ability for such research consider it incumbent upon him to restore collodion firmly to the position from which it is being so rapidly deposed.

And the *gelatine process*—how does it stand? The revolution which it has caused in photography has been altogether unparalleled in the history of the art-science. New societies and clubs are springing up as a direct consequence of its introduction, and into associations which had become lethargic new vigor has been infused. When we consider how short is the time since it was introduced, and the high position it has already attained, we cannot but feel wonder at the rapidity of the development of its resources and the inestimable value of the multiplicity of experiments of which it has been the subject, with gratification at the result. But an exalted degree of sensitiveness would be of little value if such were obtained at the expense of quality, and this is not now wanting. The value to the studio portrait

operator of extreme rapidity and quality combined need not be more than alluded to in an assembly of professional portraitists. The securing of the "infantile smile" is now brought within the reach of every one.

One feature of special value in connection with the introduction of sensitive plates into the studio must not be overlooked. It is the possibility of obtaining portraits of large dimensions by means of optical combinations other than the recognized form of portrait lenses. Portraits and groups of the highest degree of excellence are now being obtained by the agency of landscape lenses, either single or compound, and these give a degree of depth and equality of definition that cannot be secured when employing a portrait combination, and at a cost of duration of exposure scarcely exceeding that necessitated by the large and necessarily expensive portrait combination. Examples of this class of work are to be found in the exhibition now open.

Allied to this is the advantage obtained by the agency of gelatine in securing, in the walks of higher *genre*, art effects of a more artistic nature than were previously possible, without, at any rate, having recourse to double or combination printing. There is no one present who will not be interested in knowing the sentiments of that master of photographic art, H. P. Robinson, of England, respecting the value of extra-sensitive gelatine plates to the artist. Having spent an evening within the past few weeks in Mr. Robinson's company, on the occasion of a recent visit to England, the present speaker is enabled to reproduce in colloquial form the off-hand utterances of this able artist and art writer, Premising that in course of conversation I had alluded to the fact of the paucity of those professional portraitists in New York City who made use of the gelatine process, Mr. Robinson said: "I am surprised to hear this, for here in England collodion is now seldom used, and that only for copying. Apart from the convenience of having your plates always ready and the quickness of exposure, I consider that dry plates give artistic qualities that were seldom or never met with in the wet process. I do not know how to describe it except by the word 'quality' as used by painters. Then if you can rely on your plate maker, you have no faults in your plates, no pinholes, no comets, no streaks in the direction of the dip and the other devils that drove the wet plater mad while he ought to be keeping himself cool so as to do the best with all the artistic gifts which nature had endowed him. While you are posing your group for a gelatine plate," continued Mr. Robinson, "you need not fear that if you keep your plate

waiting another minute it will be spoilt. Then you can do things it would be useless trying with the wet process. Few of these groups I now show you [and here it is of vital importance to observe that the author of this report was so fortunate as by the courtesy of Mr. Robinson to secure copies of the pictures alluded to and to have them here for exhibition] could have been possible in the old days; but," observed our friend, "I say the old days by inadvertence; I forgot that collodion was still used in America; it seems to me to belong to the past ages. Then for convenience of work. I gave up outdoor photography eight or ten years ago because I was not equal to the physical exertion, but now I have taken to it again with large plates, and it is a delight to me. During my last holiday—photography is no longer hard work, but part of a holiday—of a fortnight, the wind and rain came on every day with great regularity, but there were two days on which I could get out with some hopes of success, and during these two days I exposed fifty-two 15 x 12 plates, all containing figures and all containing a subject—that is, some story is told. This would have been prodigious with collodion, but with dry plates it was only a sort of gentle exercise. But then, as you know, I think out my subjects before I make my pictures. I do not trust to accidents or the inspiration of the moment. Besides the fifty-two outdoor pictures, I exposed sixteen interiors, making sixty-eight in all." In reply to a question concerning the development of his negatives, Mr. Robinson said: "I never develop away from home. I sometimes exposed two plates on a very good subject. Otherwise I trust to the negatives coming right and am seldom disappointed. And the delight of developing at home! I never label my plates as I expose them, and as perhaps I ought to do, but mix them up recklessly. So I never know what is coming. Perhaps it is one of your best subjects, or it might be one you were doubtful about, that comes out better than you expected. The 'Merry Tale' was done on a very windy morning. I posed the group and said I would only throw away one plate on it as a sort of record for another time, and it turned out one of the best."

The foregoing is the gist of a conversation with Mr. Robinson just after he had returned from a fortnight's holiday, during which he took a number of pictures in the absolute sense of the word, not inferior in the slightest degree, however superior in many points they may be, to those by which his name has become known all over the world. It is not considered out of place to have quoted at such length the sentiments and expres-

sions of this gentleman, seeing that, owing to his position, they are so intimately entwined with photographic progress in a certain and all-important direction, not to speak of the fact of the illustrations, never previously exhibited in public, being accessible to every one present.

But the gelatine process has technical as well as aesthetic bearings, and a report on progress would be incomplete were the former left out in the cold.

The degree of sensitiveness to which gelatine emulsion has been brought is very remarkable. The long cooking originally introduced by Charles Bennett has been since supplanted in a large measure by a quicker emulsification at a higher temperature, and this in turn has been modified to such an extent that the speaker has seen the whole operation of the preparation of an emulsion gone through in his presence, from the weighing out of the gelatine to the coating of the plates, the time required being only two and one-half hours, and the plates possessing a degree of sensitiveness so exalted as to permit of a portrait being obtained with an exposure calculated to be only a thirtieth of what would have been required with wet collodion when worked under the most advantageous circumstances. It would be foreign to the scope of this report to enter into the working details of this modification, especially as they will be published elsewhere.

Before dismissing gelatine emulsion it is necessary to refer to a discovery made in connection therewith by Mr. Leon Warnerke. He has found that the salts of silver in the photographic image of a gelatino-bromide negative developed with pyrogallic acid render the gelatine insoluble in the parts acted on by light in a manner analogous to the action of the bichromates. It would far transcend the functions of a report like the present to enter into all that arises from this discovery, but one or two direct practical deductions from it may be referred to. A gelatine emulsion applied to a porous surface, such as paper, the image, after being developed, may be entirely denuded of the soluble gelatine by means of hot water, and entirely removed from the paper and transferred to glass, porcelain, or any other body. Again, the image, being in great relief from the partial solution by hot water, may be used as a relief for printing by the Woodbury process. It can be used for numerous photo-engraving processes with or without grain. Vitrified or ceramic pictures may be produced with comparative ease by this process or principle. Plates for phototypic printing can also be produced through its agency. Reversal of the image from a lengthened exposure does not here

seem possible when the cause of such reversal is kept in mind.

An improvement of some importance consists in the discovery of the conserving properties exercised by sulphite of sodium when added to a solution of pyrogallic acid. This permits of an aqueous solution of the acid being prepared in quantity and kept in stock. The proportion of the sulphite recommended by Mr. Herbert B. Berkeley, its introducer, is four parts to one of pyrogallic. Citric acid has long been made use of for a similar purpose, but public opinion in the old world seems decidedly in favor of the sulphite.

A *standard sensitometer*, invented by Leon Warnerke, has, during the past year, taken its place among manufactured articles relating to photography. It affords the means of ascertaining, with nearly absolute certainty, the relative degree of sensitiveness of plates prepared with any kind of emulsion or collodion, wet or dry. It consists of a glass quarter plate divided in squares, each possessing a different degree of opacity from the other. Behind this is placed the plate to be tested, and in front of it a phosphorescent plate, prepared by mixing calcium sulphide with melted paraffine. The phosphorescence is excited to its utmost power by the ignition of a small piece of magnesium ribbon. Each plate to be tested is exposed for a definite period to the light of this phosphorescent tablet, and, according to the numbers visible upon development, so is the sensitiveness of the plate. This ingenious instrument removes from the region of doubt all speculations regarding the comparative sensitiveness of any two or more kinds of plates, and some dry-plate manufacturers send out a guarantee as to their sensitiveness based upon the indications of this sensitometer. One of these instruments, which is employed in the editorial office of the *Photographic Times*, is now submitted for examination.

New Methods of Mechanical Printing.—Two new methods may be here referred to, one of them being an application of gelatino-bromide, the other of bichromated gelatine. The first owes its inception to Captain Pizzighelli and Dr. Eder, the other to Mr. Walter Woodbury. The former has not yet received a name, nor has it become an industry; the latter is more favorably situated, and is known as the stannotype. A few words respecting each in their order.

A plate of glass having received a suitable substratum, water glass being preferred, is coated with gelatine emulsion, and the negative produced in the usual way. After it is developed, but not fixed, the plate is immersed in a bath of

bichromate of potash and dried. The strength most suitable for the bichromate bath is 900 of water to 30 of the salt. In this the negative is kept for a quarter of an hour, drained, and the excess of solution removed by a cloth. It is then, after being dried, exposed to light from the plain glass side, and finally washed and fixed. The color is now removed by immersing the negative in a solution composed of one part of bichromate of potash, three parts of hydrochloric acid, and one hundred parts of water, after which it is washed and again fixed to remove the chloride of silver formed by the last operation. No silver whatever now remains in the film, but only transparent gelatine, upon which the picture is visible only by its granulation. The plate is now ready for inking and being printed from, as in *Lichtdruck*.

By the stannotype process of Woodbury, a printing plate is obtained in a simple manner and from which prints may be produced by the ordinary process of Woodbury printing. An outline of the process is as follows: A transparency is first obtained by any of the innumerable methods well known in connection with such a purpose, and it is used for producing a print upon carbon tissue in the same way as that in which a carbon print is made from a negative. The tissue is one very rich in gelatine as compared with coloring matter. This having been developed by warm water upon a perfectly flat plate of glass, is dried, and presents the appearance of a negative in high relief. Having been slightly smeared over with a viscid solution of India rubber, a sheet of tin-foil is superimposed, and the whole passed between rollers of India rubber, by which the tin-foil is intimately brought into contact with the minutest depressions in the gelatine relief picture. From the glass plate thus treated may be obtained a moderately large edition of prints by the ordinary well-known method of Woodbury printing, which is so extensively employed for book illustrations. When a great number of pictures are required, the tin-foil, instead of being composed of the pure metal, receives an infinitesimal coating of iron on one side by means of the battery, by which its hardness and endurance become greatly increased. Formerly a hydraulic press and costly machinery were requisite in Woodbury printing; by this invention such impediments to its general adoption are removed. Specimens executed in the manner described are hereby submitted for examination.

In the application of *optical science* to photography, little can be said concerning advances recently made. The only thing by way of lenses

that can be designated as new is an objective, or, more correctly, two objectives, that have been recently introduced by the Messrs. Steinheil, of Munich. One of these has a large angular aperture, and is intended for portraiture; the other, being smaller in this respect, is more suitable for objects of still life. In these lenses a distinctive feature is found in there being a large residuum of aberration in the front lens which is corrected by aberrations of a contrary character in the back. In the portrait lens the back combination is a diminishing glass, and therefore lengthens the focus in the same manner as the old and now little used orthoscopic lens; only in this new one the angular aperture is larger, and the rapidity of action consequently greater. The back combination is cemented, and the glasses are very thick. In the landscape lens the back combination—being, *in effect*, plain glass as regards magnifying—does not sensibly alter the focus of the front lens, but subserves the purpose of correcting its aberrations by those of a contrary character. It is yet premature to speak of the influences these lenses may exercise upon practical work, especially as they have scarcely yet been introduced.

In the mechanical department of photographic optics, an advance of a highly important nature has recently been made by the Photographic Society of Great Britain. With a view to terminate the great inconvenience that arises from the multiplicity of lens flanges now in use—each lens maker apparently making it a matter of conscience to adopt a different standard, as regards number of threads and diameter, from his neighbor, all greatly to the annoyance of the user of lenses—this society appointed a committee to investigate the subject and advise as to the best course to adopt, so as to bring about a standard of uniformity among the lenses throughout the world. Their report, which has been adopted by the society, makes recommendations to the following purport:

With regard first to the size of diaphragms, the standard diaphragm should have an aperture equal in diameter to one-fourth the equivalent focal length of the lens, and such diaphragm be marked "1"; that other diaphragms should have apertures diminishing in area to the extent of one-half downward, and be marked successively 2, 4, 8, 16, 32, 64, etc. Should a lens not optically admit an aperture as large as one-fourth its focal length, they still recommend that the largest be marked in uniformity with the above. In the event of intermediate ones being required, they are to be marked in the ratio of their apertures to the unit size.

With regard to *flanges*, the committee recom-

mend that they be made with internal and external threads adapted to screws of $1\frac{1}{2}$, 2, $2\frac{1}{2}$, 3, and $3\frac{1}{2}$ inches external diameter, with 24 threads to the inch; and that larger ones increase in sizes from 4 inches upward, with 12 threads to the inch. Adapters may be made with inner screws suited to any existing lenses, and with outer ones corresponding to the next or other larger size of the standard flanges.

On motion, the report was received and adopted, and a vote of thanks tendered to Mr. Taylor for the same.

A letter of regret was read from Mr. Leon Van Loo.

A vote of thanks was tendered to Governor Porter, of Indiana, for the high honor bestowed in his address upon the art of photography.

A telegram wishing success to the convention was read from Mr. Henry T. Anthony.

The President announced the committee to nominate officers and to fix the locality for the next meeting as follows: Messrs. Hall, of Illinois; Curtiss, of Wisconsin; Bingham, of Tenn.; Sanders, of New York; Landy, of Ohio; and Peters, of Indiana.

Some discussion now followed as to when the election should take place, a proposition being made to have it follow immediately the report of the committee. This being announced as unconstitutional, and a proposal following to amend the constitution so as to allow it, a committee was finally appointed, consisting of Messrs. Clark, Schleier, and Reed, to suggest proper revision of the constitution and report at the next meeting.

THE PRESIDENT.—You will please now give me your attention:

Ladies and Gentlemen: It is, indeed, a great pleasure to me in looking over this vast assembly of photographers, recognizing many old familiar faces and hundreds of new members that were here to-day; it gives the assurance that the Photographers' Association of America still lives, and that you have come here to-day, not from one section, not from one State, but from the great West, the South, the East, the North, of our great American continent. Gentlemen, in the name of the Photographers' Association of America, I welcome you to this our third annual convention, where, by your presence, you have made this the largest photo-

graphic gathering that has ever assembled together, and we, as photographers, can feel proud that our Association stands to-day pre-eminent over every other photographic association.

We have come here for the purpose of mutually improving ourselves, and of being taught and teaching others in return, and also to study the productions of others in return that our own may improve. Let me then impress upon you one thing of importance, that we all should try to do our utmost to make this our annual convention a school of learning, a promoter of fraternal feeling. This is what we are so much in need of. Let us then as progressive photographers desiring the elevation of the profession, in this Association give it our hearty support and the encouragement it so justly deserves. Let every member contribute as if the success of the Convention depended upon himself; then, through our combined influence and assistance we shall make the meetings of this Association productive of the greatest good to the largest number.

I would also impress upon you, that you should in future offer encouragement for the protection of meritorious pictures sent to our annual exhibition and enter them for competition. The prizes need not be the gold and silver medal, but a diploma. The honor of receiving a diploma for merit in portraiture and other special advances in art would create fair, honest competition at our future exhibitions, and we should thus obtain larger contributions of the productions of the members. More and more during the year our profession at large has suffered from the so-called "Cheap Johns." Judging from the tone of many articles that have appeared in the *photographic press*, this Association is respected and is looked upon by many as a means to an end, and that it should work on the basis of bringing about a better understanding towards a more remunerative scale of prices. How we shall accomplish this result I fail to comprehend. I shall, therefore, leave it for others to explain to you the *modus operandi*, trusting that you will give it your attention and not act rashly, else the effect should be worse than the cure. I have observed that the disease is not only a local, but a national one, somewhat epidemic in its character and of great magnitude; and as I heard the remark, in some localities "they have it bad." What a good fortune it is for this Association that our third annual meeting should be here in Indianapolis where we find no Cheap Johnism; here we have no great demonstration of cheap cabinets at one dollar a dozen. It is gratifying to report so large an increase during

the year. Photographers are beginning to feel the advantages conferred by this Association, and although some of our representative men still stand aloof, the time is not far distant when they, too, will flock to our standard. We do not overlook the assistance received from the dealers and manufacturers in filling our empty treasury, nor from the *photographic press* who, through their columns, aided in the grand success of this convention and the advancement of our art. I to them offer the thanks of the Photographers' Association of America, coupled with the hope that the fraternal spirit continued will result in our mutual benefit.

Gentlemen, there are some communications here which had probably better be left over until to-morrow morning. A motion is in order for adjournment. This evening there will be at eight o'clock a sociable promenade and concert in the hall across the street, to which all the members and their friends are cordially invited.

On motion, adjourned until Wednesday morning at ten o'clock A.M.

SECOND DAY. WEDNESDAY, AUGUST
9TH, 1882, 10 A. M.

Convention called to order by the President.

On motion, the reading of the roll was again dispensed with.

A motion was made, in accordance with the President's request, that the reading of the minutes be dispensed with, and it was agreed to.

THE PRESIDENT.—The reports of committees will now be received.

MR. SCHLEIER.—I rise to a point of order. I wish to get the minutes of our proceedings read.

THE PRESIDENT.—I desire to say that the motion has been carried, that the matter be dispensed with. It will only take up a great deal of time.

MR. SCHLEIER.—I would like to have them read.

THE PRESIDENT.—We have not got them.

MR. SCHLEIER.—Not got them?

THE PRESIDENT.—Not in proper shape.

MR. SCHLEIER.—For this reason I rise. I want to know whether you have the proceedings down in writing?

THE PRESIDENT.—I believe the press—the photographic press will have them.

MR. SCHLEIER.—The photographic press? Have we not got a secretary, Mr. President, who is bound to control these things?

THE PRESIDENT.—I think that it would be too much arduous labor for any one secretary to undertake that work.

MR. SCHLEIER.—Do I understand, Mr. President, that you will admit such gross error as to allow an assembly like this to depend upon simply the *press* for our proceedings—for our record hereafter?

THE PRESIDENT.—For the information of yourself, Mr. Schleier, and the assembly, I will state that the Association last year paid \$100 in New York for the reporting, which was not complete, and as the *press* reported last year's meeting to the entire satisfaction of the present officers, it was voted that we give them a chance to do the same thing again. I suppose that they will attend to it, as it is for the interest of their readers.

MR. SCHLEIER.—To my understanding the minutes of any meeting are sacred to the Association. It is absolutely necessary that we have a record that we can fall back upon. Here we have the different representatives of several papers, etc., and they will give different records of our proceedings, and what have we got to fall back upon in case there are errors on one side or the other? Why, my dear sir, in an Association like this, we want a record kept in a proper parliamentary way, and unless we have that we certainly will not succeed in our undertaking. Now, sir, I would move that we at once employ some one who will take down the minutes correctly, and then let it be the property of our Association and for the journals, with the papers. The more we can broad-cast our record the better it will be for us.

A MEMBER.—I rise to a point of order. The President has called for the reading of the reports of the committees, and I believe that there are committees that have not reported, so this debate is not in order.

THE PRESIDENT.—That is right.

MR. SCHLEIER.—I am speaking on a point of order.

THE PRESIDENT.—The gentleman is out

of order. The committees will now make their reports.

MR. E. R. CLARK.—I have the following report to read:

*To the President and Members
of the P. A. of A.*

We, your Committee appointed to consider the proposed changes in the Constitution, recommend the following:

That Article 2, Section 2, read "Treasurer," instead of "Secretary of."

Also, Article 2, Section 4, to read as follows: "Every member shall pay his dues in advance annually, January 1st, into the hands of the Treasurer."

Article 3, Section 6 of the By-laws, to read as follows: "The officers shall be elected at the morning session preceding the last day of the annual convention."

E. R. CLARK,
T. M. SCHLEIER,
J. H. REED,

Committee.

INDIANAPOLIS, August 8, 1882.

MR. KLAUBER.—I move that the report of the committee be adopted. Agreed to.

MR. A. HALL, of Chicago.—Mr. President and Gentlemen: Your Committee on Location and Nomination have attended to their duties, and beg leave to submit the following: that the next Convention meet on the first Tuesday of August, 1883, at Milwaukee.

The following names we propose as candidates for officers:

For President, Joshua Smith, of Chicago.

MR. SMITH.—I would rather it would have been somebody else.

MR. HALL.—For Vice-President, one from each State, (list read.)

For Secretary, W. H. Sherman, of Milwaukee; *for Treasurer*, Joseph H. Reed, of Clinton, Iowa; *Executive Committee*, J. F. Ryder, of Cleveland, and A. E. Dumble, of Rochester, N. Y.; *Committee on Progress of Photography*, E. L. Wilson, J. H. Fitzgibbon, J. Traill Taylor, and T. C. Roach. All of which your Committee respectfully submit.

On motion, the report was adopted and the Committee discharged.

Mr. Dumble declined to serve.

MR. KLAUBER.—Mr. President, you have

changed the law that the election shall be on the day before the adjournment. We shall adjourn to-morrow, and we will have to elect our officers to-day.

THE PRESIDENT.—The day of adjournment is on the 11th, and the election will take place to-morrow forenoon at ten o'clock. We have here a communication from the Committee on International Associations; what is your pleasure, shall it be read?

The communication was dated New York, August 4, 1882, and was from Mr. D. N. Carvalho, Chairman of the Committee, who, after stating what he, as a minority of the committee, had done in the matter, asked that the Committee be continued with two more members added; inasmuch, as in his opinion "the time and opportunity had not arrived for the formation of an International Society of Photographers," and therefore asked that his report be accepted as one of "progress."*

MR. KLAUBER.—I move that the communication be received and filed.

It was agreed to.

THE PRESIDENT.—I have here a communication from the Indianapolis Target Shooting Association, as follows:
Photographers' Association of America.

GREETING: Your esteemed Association is hereby cordially invited to visit the range and park of the above shooting club at any day and time to be decided upon by yourselves. Friday afternoon, 2 o'clock, would be a suitable time for all, and if you would accept this invitation you would agreeably oblige our club by letting us know, that the necessary arrangements can be made. Hoping this will meet with a kind acceptance, I remain, yours,

EARNEST KITS, *Secretary.*

THE PRESIDENT.—I will give a little more information on this subject. The park of this Association, I believe, is a very beautiful place; it is situated within two

* The bulk of Mr. Carvalho's report is omitted, for the reason that the whole work of the Committee was premature and unnecessary, as will be seen further on in the proceedings, when it was taken up and another measure started in its place.—Ed. P. P.

miles of the city; it has railroad communication, and the committee, if the Association will accept its kind invitation, will, without doubt, place a full train at the service of this Association to carry them out there and return. They have out there archery, boating, and shooting, bowling alleys, dancing floors, and everything you can wish. You can have a very nice time, and have the photograph taken of the Association, if the Association so desire. The members of this Target Association are of the highest and most esteemed citizens of this city. Mayor Boggs is one of the Directors.

On motion, the invitation was accepted.

MR. KLAUBER.—I would like to amend that by saying to-morrow afternoon. Many of the members want to leave before Friday, who would like to go. If it suits the Association, I would move to take that trip to-morrow afternoon at 2 o'clock.

THE PRESIDENT.—Before that motion is put, I wish to state that there is too much labor before this Association to attend to anything of the kind to-morrow. We want to give you, gentlemen, more photography, and I believe we can get through the business of the Association by Friday noon. We can have a chance to get our dinner, and have a nice, sociable gathering in the afternoon, and bid all good-bye.

The question being on the motion to accept the invitation, it was agreed to.

THE PRESIDENT.—I will appoint as a committee to communicate the acceptance of this invitation, Mr. Douglass and Mr. Fowler, of Indianapolis. It will be necessary that the gentlemen be informed at as early a time as possible.

THE PRESIDENT.—I instituted yesterday afternoon in yonder hall a question-box, intended to bring matters of interest before this Association; I found amongst the questions a few which were of no advantage whatever to the Association. We want only questions on technical points in photography. We don't want points about going to a ball, or about going to meeting, or who is the best looking lady in the house. Amongst the proper questions, I find a gentleman desires to be informed if the black japanned trays as sold by most stock-dealers

for dry-plate use are to be recommended? Will they stand hypo, ferrous oxalate developer, or bromide solutions, even if the japan is worn off in some places disclosing rusty marks? When in this condition ought they to be thrown away and replaced by others?

Now if any member present will give us some information, we shall be pleased to have it. I think the question is a mighty good one.

MR. KLAUBER.—Mr. President, I think I am about as old a dry-plate worker as there is in the house. I have tried this kind of dish, and I think that they are perfectly worthless for the uses named. They will do for about two weeks, and anybody who uses them after that is going to get into the mud. I would just as soon think of putting a silver bath into an iron dish that has not been coated with anything, as to use japan dishes for either fixing or developing purposes. Rubber or porcelain is best. The japan comes off and then your plates are gone. I have tried glass-ware, and glass will do very well. I have tried those japanned dishes. I used to coat them with asphaltum, and I have used shellac; I have used every thing imaginable, and at last I came to the conclusion that I had better give them a good scrubbing, and then throw them away.

MR. CRAMER.—I, for one, am very glad that this point has come up before us. I think that these trays do more harm than many would expect, and that they are the cause of many failures which you lay to some thing else. We have in use new "tricks." I make this remark in order to caution every body against the use of tin trays for the developer, or the hypo or bath solutions. Be on your guard against painted, tinned, or japanned trays, or any thing of the kind. They will cause you trouble. We have had complaints from parties saying that the large plates were covered with a kind of sandy appearance on the end of the plate, resembling pin-holes, and we have found that the tin tray was the cause. We have found opaque spots on the plates, and we have found that the rust of the iron was the cause of them. In this case it was not the japanned tray, it

was what is called enamelled or gray ware. Even this is not fit to be used for the hypo or anything else, which causes rust.

MR. POTTER.—I have used these pans. I have got one pan that I have used since I commenced using pans for dry plates. It is 5 x 8 inches. I have a couple of others that I use sometimes when I have two plates to develop very slowly, to get the proper intensity. When I am rushing business I have four or five plates developing all at once. I used the first pan, and it has got rusted all around the edges and on the bottom; I used that with the others. It is my practice as soon as I am through developing plates to pour the developer back into the holder. I always wash the pan out, and so I go on using my pan. Then when I go to develop a plate I turn on the water and rinse it out, and then pour in the developer. Of course, if there is any of the iron exposed there, rusty iron or iron that is loose, and it gets into the developer, it is likely to affect the plate, settle down and stop developing, if nothing more. We have little scales sometimes form, but you wash them off when you rinse out your pan, and in this way you get rid of them. You can wash them all off when you clean up, keeping your chemicals in the holder. The scales will not do any harm if you keep them out of the solutions. I am going to use the pan as long as it does not rust clear through.

MR. ROBINSON.—I rise to recommend a thing published several times in the *Mosaics* as well as in the journals; that is, making the tray of ordinary wood and covering with resin or beeswax. I made several, and like them. I do not think the tin trays are very serviceable.

MR. DUMBLE.—On my way to Indianapolis I saw the nicest developing dish; some of you gentlemen may have seen it. Only the bottom was of glass, and at the lower end there was a strip of glass about two inches wide, extending along the bottom, so that in the course of the development all you had to do was to hold it up so you could look through the negative. This strip of glass held the developer. It was the nicest thing I ever saw. A little

wooden dish with strips of glass on the bottom, and there is your developing dish.

THE PRESIDENT.—I believe we have heard enough about this. The next question is by a member who wants to know why it is that when using a Darlot view lens on a light cloudy day, and under a sky-light, there will be a round reflection on the ground-glass in the centre, and at other times it will work clear? Any gentleman that can give any information on that we shall be glad to hear from.

MR. J. TRAILL TAYLOR.—Mr. President, I am rather inclined to dispute the alleged fact. If the lens be properly mounted, and the mounts blackened sufficiently, that there be no reflections from the region of the lens in the same, I think there will be no reflection at all of the kind referred to. On one occasion there was a complaint made of the same thing in a lens made by Ross. I believe the lens was sent back to the maker with the complaint, and after being in use for a certain time it was returned with the same complaint. I examined it and found it arose from the wiping by means of white leather; the wiping of the lens had insensibly polished the black varnish surrounding it and a ring by which it was secured to the same, that gave rise to a specious reflection impinging upon the centre of the lens, which caused the spot alluded to. The way it was got rid of was by reconstructing the mount so there would be no projecting work between the lens and the ground-glass. I think that would be likely to be the case in the lens referred to.

THE PRESIDENT.—The next question is, "Is bichloride of mercury a safe intensifier? Is there anything better? Why cannot acetate of lead be used to free the plate from hypo as well as from prints?" Is there any member present who can give any information on these two questions. To the first question I would say "No?"

MR. CROSS.—I have used it with dry plates, and I have used it with wet plates, and I find the bichloride of mercury very troublesome in its use, especially in relation to washing. The plate must be freed from hypo, and well washed from the bichloride, which takes at least two minutes, under a running stream of water. If

that is well done, there is no question but it will blacken under the application of ammonia. Under these circumstances, I have not seen the slightest change. The washing has been the only fault, or the want of thorough washing has been the only fault I have discovered in its use.

MR. KLAUBER.—I have some negatives that were strengthened with bichloride of mercury. I believe that I looked at them only about a week ago. I have not seen in any of these dry plates any change since the subsequent printing of the plates. I have seen some turn yellow, but as far as the printing was concerned I could not see any difference. I believe all photographers using the dry plate don't wash them enough. Wet plates are washed easier than dry plates. I used to wash my wet plates from five to ten minutes. After intensifying I wash them again for ten minutes in running water, and I believe if this is done you will find no trouble whatsoever through any change.

A MEMBER.—I would like to ask the different members of this Association if any member can give information as to the best way, or any way, of removing the yellow discoloration which takes place on the application of the bichloride of mercury, or to free any negative not properly freed from the hypo. That I believe is a bug-bear. Many negatives are spoiled by the application before perfectly washing. It is a yellow stain, which I think most of the fraternity have seen, and it is quite ineradicable. I have tried every thing I can think of, and have never succeeded in removing it. If any member can inform me how I can do so, I shall esteem it a great favor.

MR. SHERMAN, being called for, said, I am not aware of any way of remedying it.

THE PRESIDENT.—I believe in former years he used a hypo distinguisher. Probably you can give us some ideas, Mr. Sherman.

MR. SHERMAN.—I used a mercurial compound for the fixing bath and for a toning bath, but I am not aware that that has any relation to this. I know of no way of removing the yellow stain referred to.

A MEMBER.—I had a little experience

yesterday. I had this yellow color to come on my plate after I had developed it. I fixed it with cyanide, so it became very yellow. I took a weak solution of cyanide of potassium, dipped it down in the bath, and it took that off just as clear as any wet plate or dry plate you ever saw. That is the only one I have tried in that way. It did exceedingly well that time. The solution of cyanide was very weak.

MR. KLAUBER.—Cyanide will sometimes remove the yellow spots when the film is entirely yellow; sometimes you cannot remove it with cyanide. I will give the gentleman the best thing to remove it, and at the same time an over-timed dry plate; this will hold good under all circumstances; that is, to take a pin and run it across the face of it.

MR. ROBINSON.—Speaking about yellow stains on a dry negative, I had some time ago some little experience with it; have stumbled on a remedy for it, and I will give it to you. I find with a plate that has become yellow from the over-intensifying, by the use of the bichloride of mercury and iodide of potassium, that it can be removed by washing the plate well under the tap and flowing over it a solution of ammonia and water. One ounce of ammonia to twenty ounces of water. Rinse that well under the tap and then immerse the plate in the hypo. By this rinsing you will find the yellow stain has gone.

MR. CROSS.—I have met with these stains several times. I have used the hydrosulphate of ammonium to cure them.

THE PRESIDENT.—Now then we have another question, and one which has been much discussed. Why cannot acetate of lead be used to free the plate from hypo as well as from prints? Is there any gentleman present who has had any experience in that direction? None? Then we will pass to the next question.

What is the best glass for a sky-light; ground or plain? That is a stunner (laughter); I guess we had better make that a motion and see whether the ayes or noes have it. Is there any gentleman present who can give any information on this? What is the best thing to do with a leaky sky-light? (Great laughter.)

MR. FITZGIBBON.—I have been there, and I say *stop the leak*.

A MEMBER.—I have been there for the last thirty-five years, more or less, and I find the best way is to lap your glass not over a quarter of an inch (an eighth of an inch will be fully as good), putty it in tight and you will never have any more trouble.

MR. COOPER.—I have worked under a sky-light that has an angle of forty degrees, which has a lap of one-quarter of an inch. It leaks every time there is a rain storm. It does not leak through the laps. It comes down along the sash. You can trace it from the sash up and down by the water-mark.

THE PRESIDENT.—Put a tin gutter under it.

MR. COOPER.—I have worked under my sky-light twelve years, and never used putty at all. Instead of using putty I used a wood rabbeted deep enough to do the work, and screwed a wooden cap down on to it.

MR. COOPER.—I have had a great deal to do with sky-lights, and have found every one of them would leak; I adopted a plan of making a little trough of tin running down each bar and connecting it with another one running out through a hole bored through to the outside. If this method is adopted, your sky-light will never leak. The cost of it is about three dollars and fifty cents.

MR. POTTER.—I have a sky-light opposite the hotel which never leaks, and if any one wants to come up and see how it is made I shall be glad to have them do so. You can all try it. I had an awning bracket fall on the sky-light breaking out three of the glass, and I went and got a glazier to put those three glass right in. Once before there was a section which came down and broke out a lot of glass. I had them put in, and it has never leaked except when we have puttied in a very small light. I suppose the angle is fifty degrees; it is very steep, and the water goes off rapidly; that helps it.

A MEMBER.—I have put in a new sky-light 12 by 16; the angle is 45 or 50 degrees; made tight with putty; the lap is a quarter of an inch; it never leaks.

MR. POTTS.—I have a sky-light and it has always leaked and always will, and I have

come to the conclusion of putting in a new sky-light, which I may do, when I propose to have a gutter made in the sash, in the wood before it is put in; putting it in this shape (indicating), have a little gutter there, that catches the water on both sides. When you get a sky-light that once leaks, you may make up your mind it always will leak. I have had three to take care of.

A MEMBER.—I have a skylight twelve feet square, which has never leaked from the hour it was put in; the lap is from one-half to five-eighths of an inch.

THE PRESIDENT.—We have a communication here, in the shape of a motion, from Mr. Carvalho; what shall be done with it?

MR. KLAUBER.—Read the communication.

The communication was then read, as follows:

NEW YORK, August 4, 1882.

*To the President and Members
of the P. A. of A.*

The undersigned respectfully offers the following preamble and resolutions for your consideration:

WHEREAS, The Government of the United States has placed a high duty on importations into this country of lenses, albumen, paper, and other necessary articles used in our art; and,

WHEREAS, If this duty could be removed, or at least be reduced, the photographer would at once derive pecuniary benefit by saving to himself the large moneys he now pays for articles manufactured abroad, in not having to pay duties; and,

WHEREAS, A Committee, appointed under act of Congress by the President of the United States, is now holding sessions at Long Branch, N. J., for the purpose of regulating all tariff matters, and have expressed themselves as willing to hear argument tending towards a reduction of all at present dutiable goods; therefore, be it

Resolved, That a committee of ten be appointed, to appear before said Committee for the purpose of asking a removal of the duties on photographic goods, or a reduction of the same.

Resolved, That the President have power to appoint said committee.

Respectfully submitted,

D. N. CARVALHO.

MR. KLAUBER.—I move that the resolutions be adopted.

Agreed to.

THE PRESIDENT.—I believe the next thing on the programme will be the reading of papers. I believe that Mr. Isaacs, of Madison, Wis., is ready. If he is, we shall be pleased to hear him. Mr. Isaacs is one of our rising young photographers, and will now address you.

MR. ISAACS, after some preliminaries, said: Our honored President has said, "put your shoulder to the Association wheel." I think we should obey this injunction to the best of our ability, and consider the fact, that on the work and efforts of the members, as well as officers, of this Association, depend its success, growth, and usefulness. I consider this a duty we owe as members receiving the instructions and benefits it affords. Remember, too, that while we are putting one shoulder to this Association wheel, we are putting two shoulders to our own wheel. At the Exhibition Hall, all who possibly can should be represented. To be sure, we can not all occupy the top round of the ladder, *but we can bend our ambition and energy in that direction.* And by comparing our work with that of those above us, we can see where we are, and what we have to achieve to gain a position among those who are as yet our superiors in skill and workmanship; and it will kindle a stronger desire to improve and excel.

Many of us can not consistently claim that our work approaches perfection, or possesses any great amount of merit; nevertheless, I do not consider it necessary for us to apologize or feel ashamed of our specimens, for, although they do not rank with the best, they are or should be representatives of our best efforts, products of the most efficient means and facilities at our command, and we would respectfully ask that the merits, as well as faults, of our work be considered when subjected to your scrutinizing gaze. Friendly, honest criticism and advice should be gratefully accepted and appreciated, and should always find a willing ear.

A year ago we met in New York, didn't we? The bromo-gelatine emulsion process was the main attraction. Very few,

comparatively, attending that Convention (your humble servant included) had given the dry plate any attention, and I dare say that not one of those present has failed since then to seek and obtain an introduction to the stranger. And if there are any here who have not yet availed themselves of the services of this powerful helper, they will find it to their advantage to do so at once on returning home. Make up your mind to master it. You will find it much easier now than a year ago. The plates are more perfect, their working simplified, and more certain of good results. If you try them, you will find that it will pay you well.

Impressed with the great advantage these plates possessed when successfully worked, I went home from New York and determined to take Mr. Gelatine by the horns, train him, or coax him into such a state of docility that I could approach him with confidence when in need of his service. I found this a job not very easily accomplished. I tackled about all the breeds in Christendom with little difference. My hopes and aspirations were time and again scattered to the winds, and it was hard work to get enough together for a quorum with which to go to work again. Realizing the value of victory in this battle, I determined to conquer, which I finally did, to a considerable extent, at least. How successful or complete the victory, I leave to your own judgment to decide after examining samples on exhibition. Suffice it to say, that my experience with dry plates, during their successful use, has been pleasant, comfortable, and profitable.

On the manufacture of these plates I have nothing to offer, never having had time nor inclination to even attempt to make them. And it is my candid opinion that it does not pay the general photographer to manufacture them for his own use only, any more, comparatively, than albumen paper. It seems to me like work by itself, and would take up time and attention more needed in other branches of the business, which work cannot be bought by the dozen. The men who make these plates, and make a specialty of it, ought to be better qualified to produce a first-class article than the photographer who has everything else to attend

to. On the development of these plates depends, in a great measure, their successful use. There are many dodges and variations acquired only by experience, which, if employed and applied at the proper time, will often result in a good negative, which, by the regular mode of development, would have proved an aggravating failure. This is a subject by itself, and would prove too lengthy for consideration in this paper. The washing of the dry plate after fixing is an operation which has been considered of too little importance. To succeed in performing a difficult feat of, say, making a group of children or a valuable negative that cannot be replaced, and set aside, it is not the pleasantest kind of a sensation to find, after a few weeks, that it is dying by inches, or that it has "shuffled off this mortal coil and gone to that undiscovered country," etc., or to the other place. We generally find in such cases that the gelatine negative is suffering from an attack of that malignant disease called yellow fever, the germs of which were left there by the operator in the form of hypo—the result of insufficient bathing of the negative after fixing. I think the best way of avoiding this malady in the gelatine negatives, where the water supply is limited, is to first wash the plate well after fixing, then soak it in clear, cool water at least two hours, then wash it again. A plate thus treated can be strengthened without any trouble whatever with mercury and ammonia. On the question of using the collodion and bath, or the gelatine dry plate exclusively, I will say, in the light of my experience, and I say it boldly, that I am at present most decidedly and emphatically "*on the fence*," and I get down on either side that suits the time and circumstances the best. I could give several reasons for my position in this respect, but I will not take your time. Silver printing a few years ago was doomed to oblivion by many carbon advocates and prophets. But the crack of doom proved to be sounded only in their minds. To-day we hear the same concerning the wet process, and while a good many are now working the dry plate exclusively, very many who once did so have returned partially to first love. The dry plate, as it is used to-day, will, in

my estimation, prove the rule rather than the exception. To turn the cold shoulder to and utterly abandon an old and faithful servant, I think, will in most cases prove to be a mistake, and to cling to him forever to the exclusion of the new friend and servant who comes knocking at our door willing and abundantly able to help us out in many tight places where the old one would be powerless, is unwise, and shows a lack of progress and enterprise. I think you will find it best to unite the two in your service. Assign them their respective places of usefulness. With the new process you can do some things impossible to accomplish with the old. The old process is much more economical and serviceable in many respects than the new. Give them both your utmost care and attention. Treat them well and right. Keep your rooms clean and in good order. Ever strive to improve your work, and above all things don't lose your grip on prices. It is the very essence of foolishness for a man who does good work to butcher his prices, and any one who thinks that a wholesale slaughter of prices will be a permanent benefit to him, is mistaken. The moment you resolve to reduce your prices below a respectable rate, that very moment marks your downward tendency in the art science of photography, and you are branded among the cheap Johns and tinkering Jims. You may tell me that you are doing just as good work as at former prices, but I contend that such a thing is an absolute impossibility. *How can* a man exert his energy and take any interest in a business that he knows don't pay? No; by resorting to this suicidal policy you lose interest in your business; you lose the spirit of investigation necessary to improve and excel; you lose respectability, honor, energy, ambition, patience, health, happiness, peace, prosperity, conscience, and business. Above all things, stick to your prices. Subscribe for and *read* all the photographic literature you can, and when you find anything valuable "stick a pin there." Take an active part in and attend the Photographers' Association of America. By so doing, your work will be pleasant, your peace and comfort promoted, your health and happiness augmented, your

future prospects brighter, and last, but not least, "it will put money in thy purse."

A MEMBER.—I offer the following resolution, and move its adoption.

Resolved, That our unanimous heartfelt thanks are due to the people of the city of Indianapolis for their most kind and hospitable reception of the Chairman of this Association while remaining in this city, and especially to his Honor, Governor A. G. Porter, for his kind address of welcome.

I would also move that the Secretary of this Association be empowered to cast the unanimous vote of the Association for Governor A. G. Porter for honorary membership in this Association.

This resolution was seconded by several, and after some discussion was adopted.

THE PRESIDENT.—I have pleasure in introducing Dr. Garrison, of Chicago, who will address you. He is not a practical, but an amateur photographer, and knows as much about it as any one present.

DR. GARRISON then spoke as follows:*

Mr. President and Gentlemen: I probably have the honor of being the only amateur present, and am probably the only person present who has practised photography for three or four years without ever making a cent by it. On the contrary, I have invested several hundred dollars in this unprofitable work. Nevertheless it has given me a great deal of pleasure, and that is all the use I have for money, to buy pleasure; and I think that I have procured as much of it in this way as in any other direction in which I could have turned my energies. I feel somewhat acquainted with you here from these signs just before me. I happened to be born in this old State of Indiana, was educated in the State of Ohio, began to practice medicine in the State of Iowa, and finally drifted to Illinois, where I now hold forth. These signs stand before me in the order in which I have progressed, going on, like the good old Methodist, from one degree of grace to another; I have now nearly got to the state of perfection, I believe.

A voice—"Chicago!"

MR. GARRISON.—Now, I hardly know what it is expected that I shall say. Your President intimated to me, last evening, that the subject of

* Dr. Garrison's paper was kindly revised by him after delivery, by our request, especially for this magazine.—ED. P. P.

chemistry is one not very generally understood by the craft, and that it is a subject of which they wish to know more. Now, I consider that a very difficult subject, although a very profitable one. I may, perhaps, if I attempt to elucidate anything of this kind, fall into the common course and partially fail, as do most scientific gentlemen, because of abstruseness and abstraction. They pitch their notes entirely above the capacity of their audiences, and then wonder that their utterances are so little appreciated.

You know as to sound, according to the laws and theories of acoustics, it is believed that there are many sounds that we cannot hear. It is believed that insects make many sounds audible to each other, but inaudible to us. I know scientific men often have good ideas, but when they attempt to put them before an audience, they present them invested in a technical nomenclature above the comprehension of their audience. Now, I make this explanation preparatory to saying some things in very common language.

Perhaps if I ask a question or two, the matter will come up to you in a more interesting form. Many of you wish to make oxalate of potassium for your ferrous oxalate developer, and you at once ask the question, how much oxalic acid should I use to a given quantity of carbonate of potassium? Or, if you have a certain quantity of oxalic acid, how much carbonate of potassium shall be used? Now, how many of you can figure that out? Suppose that you have two ounces of oxalic acid, how much carbonate of potassium shall you purchase or weigh out to neutralize that? The common way would be to add little by little until you have got enough, but you are almost sure to get in too much, and then, if you have no reserve of oxalic acid, you are in a box. You have made your solution alkaline, and cannot correct it. There is a way to determine these questions chemically. Let me put an example before you. You are going to make dry plates by the new process, and you have a certain quantity of nitrate of silver. Take a case that occurred in my own practice. I was going to make some dry plates the other day, and weighed out my entire stock of silver, and found the amount to be one that would astonish you by its smallness—only 464 grains: that is all I could scrape up. Now, how much bromide of ammonium would that require? This was not a quantity, 464 grains, that could be found in any formula, but I was able, by a very simple calculation which I think I can explain so that you can make it, to determine how much bromide of ammonium to use, or if the bromide of potassium

was preferred, how much of that salt would be necessary.

In order to get this matter before you properly, I must call your attention to the old and hackneyed question of atoms, for just a minute or two. We know that all matter of every kind is composed of atoms. These are extremely small bodies, as you have probably heard before. How small they are no one can tell you, but they are, as all agree, extremely small. Now, they have another quality which I want you to bear well in mind. Whether these atoms are of the same diameter or not no one can tell you, but it is absolutely certain that they are not of the same weight. They are not of the same weight any more than the different individuals before me are of the same weight. You all have your special weights, each one of you. That weight is somewhat characteristic of you. It may increase a little, as it has in my case, in the course of time from a good conscience and plenty of food, and a little beer occasionally. [Applause.] Your weight may also increase or diminish; not so with the atoms, however. They always retain the same weight. Each atom has its special weight. Now, we cannot weigh one of them because we cannot even see them, but we can take masses of them and let them act upon other masses, and considering them in that way find, after many trials, how they compare with each other.

Now, for instance, we find the hydrogen atom has the least weight of any. We do not know how heavy it is. It is the lightest of all at all events, and we therefore take that as a starting-point and compare all the rest with it, and we call it one. Now, you say, one what? Well, one anything you please.

If you have enough of them you have one grain; if you have enough hydrogen atoms you will have one pound, or, of course, you can have a ton of them. No matter what the actual weight is, you may consider the hydrogen atom alone, and you can say its weight is one. Now, you compare the other atoms with it, and you will find that they have different weights. The atom of potassium, for instance, is 39 times as heavy. The atom of sodium is 23 times as heavy; iodine 127 times as heavy; silver 108 times as heavy; bismuth 210 times as heavy—210 times as heavy as that little atom of hydrogen! You will find this table of atomic weights in the rear part of most of the works on photography, at least you will find it in all of the works on chemistry. It is a part though, like the preface, that a great many never read. You don't need to read it, but you have it there for reference. That is the way with

most knowledge; it is available and valuable when we know where to lay our hands on it when we want it, and know how to use it when we find it. Now, looking at this table, what does it all mean? Suppose that I unite together one atom of hydrogen and one atom, we will say, of chlorine. I told you that the atom of chlorine was $35\frac{1}{2}$. Upon uniting these atoms together, they make what we call a molecule, which is simply a compound of two or more atoms. I think that you can all remember that, so when I use the word molecule you will know just what I mean. I mean the combination of two or more atoms—not a mixture, but a compound of two or more atoms in which the atoms have united chemically. Now, suppose that we unite hydrogen with chlorine, what will be the weight of the molecule? The hydrogen atom is one and the chlorine atom is $35\frac{1}{2}$. I expect that you are all mathematicians enough to solve this problem. We add these together and the result is $36\frac{1}{2}$. That is the molecular weight of hydrochloric acid. Let us take another example. We will say that we wish to find the molecular weight of bromide of silver. Let us represent it by symbols—we have those outlandish symbols that were invented originally to keep folks from understanding the science. Now that we have got them, we have to make the best of them that we can. We have Ag, representing silver. The old Latin name was argentum. Then we have Br for bromine. Now, what are the weights, severally, of these atoms? The weight of the bromine atom is 80; the weight of the atom of silver is 108. Now, it does not require much of a mathematician to add them together. We see the result to be 188, and that is the molecular weight of bromide of silver. I think that you could calculate the molecular weight of anything in that way. But let us take a more difficult example. Let us take the nitrate of silver, of which the following is the formula expressed in symbols. Now we begin to add up.

(At this point the President handed to the Doctor a glass of water.)

DR. GARRISON.—No, sir; I run by “gas instead of water.” [Applause.] Now don’t let us get distracted from the subject. We will add these up, it is just as simple as before: 108 for the silver; then the nitrogen, and as the nitrogen atom is 14 times as heavy as the hydrogen atom, you put down its weight 14; and lastly, the oxygen atom is 16 times as heavy as the hydrogen; in other words, 16 is its atomic weight, and, as we have 3 of it, we must multiply the 16 by 3, of which the result is 48. Then adding these to-

gether we get 170 as the molecular weight of the nitrate of silver.

[The diagram thus rapidly sketched was substantially as follows:

Ag (silver),	108
N (nitrogen),	14
O ₃ (oxygen, 3 atoms),	48
	170]

Now, again, let us find the molecular weight of bromide of ammonium. These are the two substances we are going to use, and we want to know how they will balance, so that each molecule will be decomposed, and there will be no excess on either side. Let us, therefore, examine the bromide of ammonium critically. You will see by referring to your works on chemistry that this is the formula for bromide of ammonium, NH_4Br . Let us consider the weight of this molecule, nitrogen 14, hydrogen 4, because there are 5 atoms present, and bromine 80, the total being 98, which is the molecular weight. Now that means just this, that 98 grains of bromide of ammonium are exactly equivalent to 170 grains of nitrate of silver; and if you put those two compounds together in this proportion they will exactly decompose each other; double decomposition will take place so that there will not be a single atom left on either side.

What occurs when we have put the bromide of ammonium and the nitrate of silver together? You know what occurs in the dance? you change partners, that is all that happens here. There is a change of partners, the ammonium evinces an affinity for the acid radical with the silver, and the bromine and silver unite—a “cross over,” as they used to call it. Now that is a case of decomposition, and it is about as difficult as any example that you may expect to encounter. You will see that there is just enough of each element. Now the question is, after this is accomplished, what have we formed? Well, in the first place the silver and the bromine have united together. How much bromide of silver has been formed? That is a question you usually do not wish to determine in the practice of making dry plates. But, suppose that you do care, just think a moment, we have 108 of silver and 80 of bromine, which added together give 188, which is the amount of bromide of silver formed. Now then what else has been formed? Well, nitrate of ammonia. You see that we could plainly tell how much has been formed if we wished to stop and do it, and now I think that any of you could tell that now just as well as I can.

We found that 170 is the molecular weight of

nitrate of silver. That is the weight of all the different atoms, and we found that the molecular weight of bromide of ammonium is 98; very well, now these are the quantities that act upon each other without any excess being left upon either side. Now this serves as a ratio or a proportion by which we can determine in what quantities to add these agents to each other in order to effect complete double decomposition. 170 of silver are to 98 bromide of ammonium as any given quantity of silver is to the quantity of bromide of ammonium to be used. Well, let us try an example, we will take the example here, 170 (of silver) is to 98 (that is the bromide of ammonium), as the amount of silver which I have, 464 grains, is to the quantity of bromide of ammonium which I must use. I have made the calculation, and find that 267 grains are necessary; I know then just the amount to add to make these gelatine plates, but, as you know, if you have tried it, you must use some excess of the bromide of ammonium. I used a very small excess, much less than the books said was necessary, and yet obtained good plates. Now we will leave that and come back to the oxalate of potassium.

In the first place we have the oxalic acid. Let us see if we can write the formula for that. It is a rather hard formula. I may get something wrong. You had better watch me. Here it is: $H_2C_2O_4 \cdot 2H_2O$. Now let us find the molecular weight. Two of hydrogen is 2; 2 of carbon, 1 of carbon is 12, 2 would be 24; 4 of oxygen, 4 times 16 are 64, and now we add to this water, and we must always take that into account because it weighs, it has a definite weight on our balance. We buy it when we buy the oxalic acid. You cannot get rid of it, and when you buy a good many salts you buy more water than anything else, a good deal more sometimes. Carbonate of sodium has ten equivalents, alum 24 equivalents of water of crystallization. They weigh very heavily. Let us try one equivalent of water and see what it weighs. One equivalent of water is 2 of hydrogen, and 1 of oxygen—16, that would be 18 altogether. Here we have two of them, this big figure 2 (pointing to 2 in the formula) showing that whatever follows it is taken twice. So we have twice 18, which is 36. Now perhaps I have confused you in this. Perhaps I had better do it in another way by which we may arrive at the same result. I told you that whatever follows the figure is to be taken as many times as the figure indicates: if 2, it is taken twice; if 3, three times; if 10, ten times. Here are 2 of hydrogen; if you take those 2 twice that will be 4, and we will set that down 4, then

we have it. There is 1 of oxygen, that will be 16 by itself, but you take it twice, which will be 32, so that you see that we get the same result whichever way we calculate. Now we are prepared, having added up this combination, to find out what the whole of it weighs; here we have it, 126. Now that is the molecular weight of oxalic acid, that is the weight of the formula if you please. It is just like the firm of Brown, Thompson & Smith; each one has his own special weight; one weighs say, 100 pounds, and another 150 pounds, and another 200 pounds; you add these weights together and you get the firm-weight, which is analogous to molecular weight, the latter being the joint weight of a firm of atoms of different kinds, the former of men. Very well, we have now illustrated that, let us turn to carbonate of potassium. To understand carbonate of potassium we will have to write out its formula. K is the hieroglyphic that stands for potassium; it used to be called kalium, they have retained the K, but dropped the balance of the name. Two of potassium and 1 of carbon, and 3 of oxygen (K_2CO_3). Now let us add these weights up and see what the amount will be. Twice 39 for the potassium, 12 for the carbon, and 3 times 16 for the oxygen, will be, altogether, 138.

Now then the facts brought before you simply lead to this conclusion, that for every 126 parts of oxalic acid you must use 138 parts of carbonate of potassium, or the reverse.

You must remember that carbonate of potassium is not absolutely pure, and it sometimes happens that oxalic acid is not absolutely pure, so with ordinary articles you do not arrive at such absolute precision as you may arrive at theoretically, but practically you are near enough right. Now you might inquire, how can these facts be utilized? We don't wish to weigh out 126 grains of oxalic acid and 138 grains of carbonate of potassium each time, but we take that as a ratio and say as 126 of oxalic acid is to 138 of carbonate of potassium, so is the amount of oxalic acid which I propose to use to the amount of carbonate of potassium which I must use with it. If we have three members of a proportion, we can get the fourth; so we can turn this problem backward and forward and work everything out that we wish and in that way.

There is just one point I will put before you before closing, and that is to bear in mind this water of crystallization. A good many chemists in writing out their formulae for photographic materials neglect to put that down, and you would, therefore, make a mistake if you did not

add that. Take the oxalic acid, for instance, and omit the water from your calculation, and as the result you will use less oxalic acid than you should. I may say right here, that not a few photographic works have been utterly ruined by the incompetency of those who have translated the works or otherwise fixed up the chemical formulæ: it is to be seen in Dr. Eder's book, in his chemical formulæ, and you will find substances on one side of an equation which you do not find on the other side at all; apparently the matter has been annihilated, has been extinguished, there are certain weights on one side which do not evenly balance on the other side, or you do not find them at all; so it is with Vogel's works—the chemistry is ruined by the translators who have had control of that translation. So under the same circumstances you will find others that have been misrepresented, and unless you are a tolerable chemist you will not know whether they are right or not. I regret that there are so many mistakes in the books on photography. I simply mention this as a matter that should be considered by future translators. I thank you, gentlemen, for your kind attention.

THE PRESIDENT.—I wish to announce that a demonstration by Mr. Aiken, on the preparation of bromide gelatine dry plates will take place at two o'clock. This evening at eight o'clock there will be an art lantern exhibition in this hall. If any of the gentlemen present have heeded my invitation, which I have so often given in the journals, in making some slides from their negatives, Mr. A. E. Dumble, one of the Executive Committee, will be very glad to receive them. It is necessary that they all should be brought in early so that they can be placed as they should be, among the pictures for projection on the screen.

On motion, adjourned to 2 P.M.

SECOND DAY—AFTERNOON SESSION.

THE PRESIDENT.—The Convention will now come to order.

Gentlemen, I have the pleasure of introducing to you Mr. Dixon, of Toronto, Canada, who will show you how he mixes his developer. I hope you will give him the closest attention.

MR. DIXON (said).—Ladies and gentlemen, I have been working dry plates for one year and I have had no trouble. I

never saw a dry plate before one year ago. In New York I saw them working—Mr. Scholten and others—three times, and actually developed some of Mr. Cramer's plates. I have been since then living myself in a small city where there are about five thousand people. Remember that I only saw him develop five or six different plates. I saw how they were worked. I went right home and commenced trying them; the first two or three were failures. I kept on, however, and kept at work at it. I picked up a receipt and I saw it was good, and I was bound to do it. So I kept on. I first worked the oxalate for three months. I worked it until I understood it. I worked it at three different degrees of strength. Whenever I came upon a formula that was better than the one I was using, I adopted it, and at last I struck Edwards' receipt, and for the last six months I have been working that steadily, and I have no desire to change. You can use any strength you wish. It is always ready, and there is no spoiling of plates. I have tried the different grades of plates of different makers. I work altogether the Swan plate, made in England, with from one to three seconds' exposure, and from seven to twelve by electric light at night. I take these plates and I take this same developer, and I never make an exposure of more than one second. I can produce as fine results as I wish in my pictures. As I said before, I always use the Swan plate, made in England.

(At this point Mr. Dixon exhibited some of his plates.)

Now the developer is the pyrogallic. The first few times I mixed it up I used to take it out with a stick on paper, and put the paper into the stand or holder, and then put it into a smaller bottle, all of which took considerable time. (Mr. Dixon now proceeded to mix his developer.) Now here is the pyrogallic—there are six ounces of alcohol which you pour right in. One ounce of pyrogallic acid to six ounces of alcohol. Now there is a great deal of it; pour it in a stoppered bottle, then you put what you want to use in another bottle, put it away for half an hour until it is all dissolved—put very little in the bottle. That is what I call the pyro and the alcohol.

Here are two ounces of glycerine; one ounce we will put into that. I will tell you in a few minutes what they are put in there for; they are all for a purpose; if you should see it on paper, you would say it was "all bosh." There is one ounce of pyrogallic, six ounces of alcohol, one ounce of glycerine. The pyro is put there for strength, the alcohol is put there to keep it better. I have got stuff enough here to last six months. You can mix it up better in water; let it stay twenty-four hours in warm water. The glycerine is put there for a restrainer and also for its keeping qualities. Use good alcohol. Here I have sixty grains of bromide of ammonium; we will take six ounces of water and it will keep just as well as with the alcohol. Now there are sixty grains of ammonium. Instead of adding six ounces of water, I put eight ounces in. Now we will put in one ounce of glycerine and one ounce of liquid ammonia. I want you all to understand this. In this bottle there are sixty grains of ammonium; six ounces of water, one ounce of glycerine, and one ounce of strong liquid ammonia (concentrated). Label that bottle "ammonia." Now, then, with the pyro mixed up and the ammonia mixed up, there is enough to make over one hundred dollars worth of work, and I think it cost me in this town one dollar and ten cents. Now we will take one ounce of either one of these, just one ounce of stock to fifteen ounces of water. Now take one ounce of ammonia. When I say ammonia, I mean the mixture of bromide of ammonium, glycerine and all—I mean the stock solution. Then I fill the second bottle up. Now supposing we have an over-exposed plate, I fill the second bottle up and develop it quickly, just as quickly as I can. Suppose we have here an over-exposed plate, what shall we do with it? We first take one ounce of the pyro and then put in one ounce of the ammonia. Now you have a two ounce solution. Instead of laying the plate in there and letting the solution flow over it, I put several into the dish—otherwise you would get a nice crop of air bubbles—the glycerine will give air bubbles. Now you must take heed to my description. If you will take a bit of paper and lay the plate under

it all at once with one sweep, it will go right over in a wave. You will commence to see it come up. It will come up in one minute. If you go to work shaking it pouring it in, you will have water bubbles and you will not improve the plate any.

Now, suppose that the plate is coming up nicely, in one minute it will appear fairly developed. Supposing it don't—suppose that it is coming up slowly—the developer works slowly—you will then use the pyro. The pyro gives strength, ammonia gives detail; the bromide of ammonium is put in there as a reducer or retarder, the same as citric acid in the iron developer; the pyro is put in to build it up and give strength; the alcohol to keep it up; the glycerine to give body; the liquid ammonia is put in there for an object also. So you have your mixture. Supposing that the developer is working too slowly, and you want it to work quicker. You pour ammonia into your graduate, and then pour it into the pyro. Now you have more ammonia than pyro. The ammonia will give more detail and the pyro will give more strength. I heard a gentleman say yesterday, while giving a receipt, "Suppose it is going too slowly, you then add so many grains more of the pyro. If you add more of the pyro, you want to bring in something. Ammonia will do. Suppose that it is acting too quickly, what will you do? Then you want to add more pyro." This is the way you should work with your plates, by which way you can add more pyro, or less, whichever way you want to, according to the kind of plate you are using.

A MEMBER.—Will your developer keep any length of time?

A. It will always keep. If exposed to the air, the alcohol may evaporate; but you must keep it corked. If the cork gets out, the liquid ammonia will evaporate, and you will lose a little strength; and if the cork gets out of the other, the glycerine keeps it.

Q. You don't use the developer over and over, do you?

A. Yes, sir. If, when I develop, there is a kind of hazy, pink fog, I know the pyro is not what it ought to be. Then I

throw away the mixture and make some more.

Q. Don't you check the developer with bromide?

A. Not without the plate is very much over-exposed and I am going to develop for white drapery. If so, then I have a little bottle of bromide of potassium arranged so that it will discharge one or two drops at a time, and with that I sometimes put one or two drops in. That gives me better whites if the plate is coming up too quickly. It has to be fearfully over-exposed to do that.

Q. Do you ever have any frilling in your plates?

A. No, sir; there is no frilling with these plates.

Q. Do you use alum?

A. Yes, sir; because it makes a harder film and clears up your negatives, and it saves frilling if the weather is very warm.

Q. Where do you use it, and when?

A. Right at the very last. First develop, wash, and fix; wash and dip into your alum, and then put the plates into your racks.

Q. Is it a saturated solution of alum?

A. I put in two ounces of chlorate of alum to every fifteen ounces of water, and change it every three or four days. I change my hypo every day or two; put ice-water to it, which, if it is warm weather, makes it ten degrees colder, and it keeps better for the next day. If it is too warm, you had better use fresh hypo; it don't cost much.

Q. Are you likely to lose any strength in the hypo?

A. No. Here is another thing. A great many over in Canada work the dry plate. They develop right enough; they get a good negative which looks all right, but as soon as it is fixed and you look through it, there is no drapery. But you should go right on in such cases and sink it in. A gelatine plate is somewhat thick, and you can take a sharp knife and scrape it clean to the glass, and find your picture right down there; so you must soak the developer well in.

Q. I would like to know how I could get this on paper?

A. You catch me anywheres this evening,

and I will give it to you straight. I give Mr. Cramer the credit for all I know.

MR. CRAMER.—Appoint a time and we will have some of the English plates developed.

THE PRESIDENT.—The room is ready to work, I believe. I wish to say the room is ready for developing plates as soon as you get ready.

MR. DIXON.—I do not want to take up all the time with the English plates, but will use the American as well.

MR. EDGEWORTH was called for, who, appearing on the stage, said: Gentlemen, I presume I was called because of a remark made a few moments ago. I said that I had used the Edwards' developer which this gentleman has been showing you to-day. I have found it a very fine developer. I think that there are few others its superior. I used it last winter with splendid results with the plate that I was handling, and I must say that I recommended it to a great many people in preference to the iron developer.

Q. What plate did you use last winter?

A. The Cramer & Norden's.

Q. Can you develop any other plate with it?

A. I have; I have developed the Richardson plate, also.

Q. What was the result with the Richardson plate?

A. Very fine.

MR. CRAMER.—Do you use the same formula Mr. Dixon has described? Sixty grains to one ounce and a quarter of ammonia, and the water and a little bromide with the ammonia.

A. Yes, sir; I would say that the glycerine is a restrainer. I obtained this developer from a gentleman who is here now from New York. He handed it to me a year ago when I was in Brooklyn. I made it up and carried it because I could carry it in a small bulk, and have it very handy. I tried it with other developers that had been recommended, and they worked very nearly alike. There did not seem to be much, if any, difference.

THE PRESIDENT.—Mr. Taylor wished me to state that the plates which he has exhibited, were developed with the de-

veloper which Mr. Dixon has spoken of, and on the plates which he has shown you. Mr. Aiken, of Chicago, will now proceed to demonstrate the *modus operandi* of coating dry plates. I hope if you have any questions to ask, you will ask them, not when he is at work, but when he is through, because otherwise it will certainly upset him.

MR. AIKEN.—I have nothing to sell and no axe to grind, and what I do for you to-day is simply because Mr. Smith has asked me if this could not be done before the Association. I do not sell plates, and have nothing to sell. What I propose to show you is a good, plain, and simple common-sense way of making dry plates. I do not pretend to say that my way is by any means the best, but I do say that it is just as good as anybody else's. I am like the Dutchman that sold the insect powder. The man who bought it said how do you use it? "Why you catch the fly and you put him on it." "Why," said the man, "if you catch the fly, why not kill him?" "Well," said the Dutchman, "that's a good way too"—so theirs is a good way too. I think when the bromide of silver film is formed cleanly and nicely with a fine deposit, that one plate is just as good as another. I have tried all kinds of plates in the market, and I have found that when they were clean that one was just as good as another, and I don't believe in anybody having any better plate than another. Now, gentlemen, I take 300 cubic centimetres of water; I work entirely by the metric system—300 cubic centimetres make about ten ounces of water. This is the Swiss gelatine. This, too, is the very best gelatine in the world. It will not frill. You may say that it is too hard, but I say that there is no such thing as having the gelatine too hard. Here is a little dodge that I have adopted to facilitate things and to gain time. It is a 44 gramme weight, a little lead weight. I do not go and take the weights out and measure them, or measure the quantity wanted, but I take the 44 gramme weight: I presume you know that the gramme is about equivalent to $15\frac{1}{2}$ grains, and you can compute it yourselves. Then I weigh out what I want. Now I have weighed out 44 grammes of

gelatine, and I have taken ten ounces of water. I have too much water and it has to soak a little while to dissolve readily.

Now here is another weight, another little lead weight, that weighs 24 grammes, and there are 24 grammes of bromide of potassium (or ammonium). I use the potassium entirely. Now, gentlemen, there is the machine I use for making the plates. It has many advantages. One is that it will never rust. The top and bottom are made with galvanized iron, and it forms, I am told, a miniature galvanic battery when it is full of water, and you may keep the water in it as long as you like. It will never rust a bit. This is a partition, and this is another room. I cook everything out in this room. My object in doing that is to keep the steam out of my coating and drying-room. This is a great advantage. You will find a small room filled with steam is very bad for drying the plates in. Now, gentlemen, I am going to weigh out thirty grammes of silver, and by the way, when I am speaking of silver, I advise you to use the fused silver. The nitric acid left in the crystals has a tendency to decompose your gelatine, and it does not work near so well as the fused silver. Thirty grammes of fused silver. Remember that.

Q. How much water is the silver dissolved in?

A. Ten ounces, or 300 cubic centimetres.

Q. Ice-water.

A. You may use ice-water or distilled water, but I had forgotten to tell you about that. It is quite important that the water should be pure.

Q. What makes your water look so milky?

A. That is the fault of Indianapolis and not my fault; it is tap water. I add the ammonia to this silver until decomposed and redissolved, in this way. It is quite important that you don't get in too much ammonia. Now the silver is ready to add to the bromide gelatine. When the silver is added, you should never raise the temperature over 35° Centigrade or 95° Fahrenheit. There are a great many plate-makers who add the gelatine after the bromide of silver is formed. In a weak solution of gelatine it does not make as good a plate, it

does not make as quick a plate, nor does it make as fine a plate, as I will explain to you. The bromide of silver might be formed without anything. Simply dissolve your silver, and add the bromide of potassium or ammonium until it precipitates the bromide of silver, the same as you have all precipitated the iodide of silver. The silver is not *dissolved* in the gelatine. It hangs in little granulated masses. If it did not, the silver would fall to the bottom, and you would have a poor, weak, insipid plate just the same as you would have with a weak bath. The bromide of silver plate, or what is called the dry plate, is almost exactly the same in working as the wet plate; you have got to be governed by some principles. One objection to dry plates is the deception practised by the plate-makers. Every dry plate is not as quick as they claim it is. There is no plate made as quick as they say. It all depends on what the subject is.

Another thing I would like to call your attention to. It is almost impossible to use a soft gelatine plate in as strong a light as you would make a collodion plate. The light has to be reduced and the exposure extended. My best gelatine plates I have exposed fifteen, some times as high as twenty seconds, and they are my "instantaneous" plates too. My plates are as quick as anybody's. There is a little danger of a "bust-up" after you pour your gelatine into the other bottle. Now we are done with the heat. We are trying to get cooled off. The next operation is a most important thing (the *most* important in making a dry plate); to incorporate the silver perfectly through the bromide of silver. Shake it thoroughly. Now, of course, this emulsion will be light-streaked and spoiled, because made in the light; you should be under ruby glass when making it. If this emulsion had been made with fused silver, with good water, and in a proper light, it would have been just as good as any you ever saw made.

Q. What amount of shaking in practice is necessary?

A. I would shake for ten or fifteen minutes. Now we want to digest. I do not digest with heat. You noticed I drew the water off there into here. I will show you

why I did it after a while. I am reducing the temperature now. It would not do to put it in at a temperature of 150 degrees Centigrade—it would be pretty hot. You take your hydrometer. Here is an important thing—don't lose sight of it. You take your thermometer—whichever one you choose. Supposing that this was one marked by the Fahrenheit scale, you would test for 95 degrees. Be sure you get it down to 95 before you put the mixture in. Then you leave it there for from fifteen minutes to two hours. It does not matter materially if the latter don't get below below 25 degrees Centigrade; it will not set. Now, suppose it has been in there fifteen minutes, and, having shaken it several times during the time, I remove it, pour it out, and set in a flat dish. Now it is ready to set, in a cold room or on ice. The ice will set it nicely in half an hour. We will take it aside, and imagine we have placed it on the ice to set. Here is some that I made this morning, so that I would not have to wait. This has already set. It don't look very nice (holding the mass up to view), as I did not take any pains with it. It is very hard to use. I now squeeze it through the meshes of the cloth, and then wash it. You squeeze it right through the cloth into the water, and that dissolves the free bromide that is present. All the silver is supposed to have been converted into the bromide of silver; it is not soluble.

Q. Do you have any certain amount of water that you wash that in?

A. No; but you must have lots of it. You cannot wash it too much. It is a good idea, in making the emulsion, to do it at night, and put it under the tap, and let the water run on it all night. If you don't want to use it right away, place it in a pail and hang it up in a dark place, so the water will drop into it, not having any water in the pail. Add a little carbolic acid; it prevents decomposition. You can leave it two or three days; there is no danger of its getting too dry in that time. If you want to use it right off, work out all the water that you can, then take a dish, turn your emulsion in it, and squeeze out what water you can. Preserve the waste of this just as you did in the other process, as there is

silver in it. Now I will show you how I coat the glass. I hope every member understands that this is working under disadvantages. It is simple and crude, but the principle will hold good everywhere.

Q. What is the heat?

A. You ought not to allow the heat to go over 60° Centigrade.

Q. The emulsion is dry before it is put into that?

A. Oh, no; you can dry it, though, and keep it for any length of time. This is my filtering apparatus. I have a little cotton put down in a funnel, and a marble put on to hold it down. Put in the emulsion and it will soon filter.

Q. What temperature?

A. I should not advise you to go over 120° to 130°, although there is not as much danger when it is setting as there is when it is forming. It is very much easier making plates in summer than in winter. If you are coating the large sizes, it is much pleasanter in summer than in winter. Now, suppose that this is a marble slab, perfectly level, and below this is a zinc trough, and it is levelled up in that trough, and there is a waste-pipe about half way up the slab that don't allow the water to rise higher than that off on the end of the slab. About level with it is a little zinc table made on that trough, and when you get ready to coat your plates, you take a great big piece of ice and lay it on; run it around a few times while coating; it will do to leave it. The trough will carry off the water. And you might as well have a piece of ice upon this rest. Wipe it off. Mr. Taylor, of Saginaw, showed me a little dodge which is a good one. He takes a cloth, wets it in cold water, lays it down on the slab, then he lays the plate on this cloth. There are two advantages in doing this: one is, it keeps the bottom of your plate clean; and the other is, it is a good deal easier to get the plate off from the slab, as there is no suction there, as otherwise there would be, and you would have to run your plate clean off the one side to get hold of it.

Now you pour the emulsion right on that plate, and work it over with your finger. Some coat with a brush nicely. Pour off the residue into a filter; it will soon run through.

You will soon learn by experience how much emulsion to put on. It wants to act readily, just as a plate does when you take it out of the bath, when it is all right, like collodion. A thick film makes a soft negative; a thin film makes the best negative.

Q. Don't you get the emulsion too thin, if you wash it too long?

A. I never have any trouble in that direction. A soft emulsion would probably take up too much water; I do not use a hard gelatine; soft gelatine is what I use. I do not pretend to say that my method is the best; I do not think it is the best. A gentleman here, from Nashville, has a better thing that he will show you, and explain to you how he does it. It is a little machine; a perfect little machine, I think. I would not advise, when you put them on the drying rack, to put your plates closer than an inch apart, and set them up edgeways. Have some paper saturated with chloride of calcium and put it near the dry plates. In cold weather you must keep the plates so that they do not freeze; heat spoils the dry plate.

Q. Did you ever use alcohol after washing?

A. Alcohol facilitates the drying, but it makes a horny plate, which don't develop as easily or as soft. Experience will teach you many things. (At this point the speaker drew a diagram of the box in which he dried the plates.) I use the oxalate developer. There are other men here perfectly familiar with the developer. One thing, I do not know how to strengthen the dry plate. I would like some man to show me how to do it. I have never been able to intensify dry plates; I have never seen one intensified.

MR. SCHLEIER.—Mr. President, I have the same thing to say which has already been said. I have nothing for sale. I do this for the benefit of the profession. You have seen dry plates developed, you have seen them made, you have seen the gentleman coat them, and he is an expert in coating plates, and yet I have a little machine which don't take any engine to run it, or anything of that kind, with which you can do your coating by machinery. It is done very quickly, and I will simply state that you rig up something in the nature of a

grinding stone, if you understand; you have all seen a grindstone; it can be either turned by the handle or you can use your foot if you want to, if you want to do it alone, or you can get somebody to turn it for you. Now suppose that you are all ready. Here in a pan is your emulsion, and you have got so many plates to coat by this machine; you can coat them with the chamois skin placed tight in a position like that, placed in a warm place where you can have warm water and keep it at any temperature that you desire. You take your plate and the gelatine lifts up while it is in motion. Now then suppose that you begin. The wheel begins to turn and the emulsion begins to come up over the wheel. You then take your plates and run them right over (you see this way); it can be done very quickly. You coat one, lay it on the stand all right, and then take another one, and so on. That is all I have to tell you. I use the same fixings that you would do with a grindstone centred nicely.

MR. CARBUTT.—The method of coating plates that you have heard described here is protected by one of the patents of the United States. This method essentially is that of Mr. Eastman, who is the patentee.

MR. SCHLEIER.—I must acknowledge that I know nothing about Eastman's patent. I got this idea simply as an old daguerro-typer, from the old buffing wheel I used to buff our plates on. It used to be hard work before we did this. I filter my emulsion through a chamois skin, instead of using the cotton with the ball in. The last, as well as one with a little bulb, I am the inventor of. I made it a present to Anthony & Co.; a little bulb attached; I suppose you have seen it. I take the absorbing cotton and place it in. I have no trouble in using it, and prefer it to the chamois skin.

Q. Do you use a wheel with the face as wide as the plate you are coating? In diameter 12 to 15 inches?

A. No, no; I have not thought of that. You take the plate and coat it in that way (illustrating), while the wheel is running you simply move the plate over it. I want to coat the plates very quickly, and I have an assistant, and he takes the plates away and puts them in the drying-room. I strive to get an equal thickness of film, and if I

have too much, I let it run off right into the dish.

MR. BEEBE.—I am sorry to detain you, gentlemen, having had occasion to investigate this matter. The facts about this revolving wheel are these: It was patented in 1877 by George Eastman. In one of his patents you will find it on one of the diagrams. His patent covers every size of the wheel, and the only difference that I see between the wheel described by Mr. Schleier and the wheel that Mr. Eastman uses, is that the wheel of Mr. Eastman's has a very small roller, about the size of a large garden roller, which he revolves at a high rate of speed, and then an assistant takes the plates and places them in the wheel, the plates being placed in a section holder and passed over the wheel as Mr. Schleier does with the plate in his hand. I state these facts, as it may save a little trouble. The patent was published and described, and every claim has been covered. I would not advise you to use it on a very large scale.

MR. KLAUBER.—Mr. President, if I am allowed, I want to get up there on the platform and tell them how to coat dry plates.

THE PRESIDENT.—That's just what we want, sir.

MR. KLAUBER.—I will show you in about two minutes what I want to. I used to take my emulsion and put the emulsion on the plate. When a man does this he don't know exactly how much he puts on, so I went to a cigar store and got a couple of clay pipes for a nickel; I took a stick and run into the holes where the gentlemen put the stems; I measured the bowl, and I found it held just enough to coat an 8 by 10 plate; I poured on the emulsion, run my little finger over it this way, and that is the way I coat my plates. A plate 5 by 8 will take half a pipe, and a plate 11 by 14 I take two pipes for, a plate 14 by 17 I take three pipes and a little more; I have coated a plate 16 by 20 by that method very easily. The best way is to have two or three levelling stands. Now I am going to tell you how I build my slab; it is something that can be done with very little trouble. I have a slab about that big (indicating), a marble slab, about an inch thick; I take

a galvanized iron pan and fill it with ice, and place my slab upon it for about a half or three-quarters of an hour—about as long as it will take me to get my emulsion dissolved and filtered—that cools my slab clear through; I then take my pan out of the room with a hundred 8 by 10 plates, and it sets there as long as it takes to cool; I have no drying box at all; I have a small room partitioned off, it has a chimney hole that happened to be in there; I drove the nails in that part, and cut a hole in the door, put up my partition, and it was all in running order; I have a double door, and when one is opened the other is closed; I take my plates and handle them all one after the other and dry them in twelve or fifteen hours in summer. My formula is about the same as the formula that has been described here, with one exception; during the summer months I do not use quite as much water, but use salicylic acid dissolved in alcohol.

MR. REED.—I will give you an idea: we should all try to learn something, and I think that what I have to say will do you all good—somebody, at least. (At this point Mr. Reed made a diagram on the board.)

MR. KLAUBER.—While the gentleman is drawing his diagram, let us state that Mr. Roach gives a developer with sulphite of soda. I had very little time to try it, but I can say it is a grand thing. It gives you a negative which is very nearly the color of the wet plate. When you go home try it, and you will find it a great thing.

MR. REED (resuming).—Your plate is all ready to set up and to dry. Now, I have a rack made in three pieces, in which the plate is set crosswise, with the film side down, so in case any particles are floating in the air, they fly away from the plate. I place the tooth like that, and any particles floating in the air tend to drop away from the plate, thus preventing the dust from settling on your plate.

MR. SMITH.—I find that in the business of photographing children, I can get much better results with the bath for small work than I get with dry plates. The reason is, that the prints of the wet-plate negative

produced in my gallery, which has a south light and considerably diffused, will give me rounder and better results, better detail in white and better detail in dark drapery, than I can produce with the gelatine plate. Now, when we get a difficult group to make, then we have a dry plate ready, and make use of it. Where we have a large figure, or a large head, it is necessary and it is required to use a large tube, a slow-working tube. We use dry plates; but for cards and cabinets for the order department, we use the wet plates. I find that in this country we have, during about ten months in the year, plenty of light for the wet-plate process. From the latter part of October to December, to about Christmas, the light is very likely to be a little poor; but when there is plenty of snow on the ground, I find that the light is always very nice and actinic. We have been working gradually into the wet plate since, I believe, last January. I believe that my work has been better than what it was during the ten months that we used no baths at all. Now, under these conditions I believe I am perfectly justified in using the baths at my disposal; that is, the best of the two processes by which I can produce results that please me. If I should find that my wet-plate work was worse than the dry (I don't mean the negatives in this case, gentlemen, but I mean the result in print, when they are finished), I should use the dry process; but if the prints produced by the bath would be the best, I should use the bath.

Many photographers are not blest with a very diffused light; they get more contrast than is good for their productions. When they have worked the bath, my observation on the results with the dry plate is that it will produce a softer negative where there is a greater contrast than the bath; therefore, those parties will produce better and more harmonious work with the dry plate, and should use the dry plate almost exclusively. But I believe, by judiciously combining the two together, that the majority of our photographers will find, that during certain months of the year there is plenty of light for most any card or cabinet work with the wet process.

Q. Where the light is in relation to the

exposure, perhaps rather weak, would you recommend the dry plate or the wet plate?

A. It would depend on the strength of the light.

Q. Where it is rather weak, what then?

A. Where it is rather weak I should advise the use of the dry plate; but where you have a strong diffused light such as mine is, I think the result much better with the wet plate.

Q. How long a time did you work the dry plate with that light?

A. All the way from one up to thirty seconds, and our customers believe that they are instantaneous.

MR. SCHLEIER.—I desire to say something in regard to the permanency of intensifying dry plates, in case you need it, with the mercury. I would also say, that the mercury changes the color of your plates. If you wish to intensify, take about twenty grains of nitrate of silver and put in about six ounces of water; take a cyanide solution and redissolve it, and make it exactly like Mr. Aiken showed you the ammonia solution was made; pour in sufficient cyanide to first form a precipitate, and then clear it up again. After you have intensified your negative, if you take a reduced solution of this and place it in there, your negative will get clear, and I have found it so far to be permanent with no change in color whatever.

MR. AIKEN.—If I am in order, I would make the following motion, that Mr. Edgeworth, the same one whose plates we have seen, be engaged to make a group of this assembly. Will any one second that motion?

Seconded and adopted, and 11.30 A.M. tomorrow, fixed for the hour of taking.

MR. CRAMER (having been called to the stand).—I am here and am ready to answer any questions that you may wish to put in regard to working with the dry plate. You have seen the *modus operandi* of making the emulsion; I hope you will all try the experiment; it will make it more interesting to you, and you will understand better than how to use dry plates; you will, of course, find a few difficulties; I can only advise that you go at it with patience and perseverance, and if you do not

have good luck, do not throw it overboard; try again. The principle is the same; the whole process is very simple, but it needs a little backbone; that you will have to study out; it will cost you some little time and money. I think that what the gentleman has demonstrated here will sufficiently answer all questions; I also suppose that one reason why our worthy President, Mr. Smith, has given up the making of the dry plates and gone back to the wet process, is that he made the plates himself, and perhaps it was a little troublesome for him.

THE PRESIDENT.—I would say that I did not make them myself, I had a person to make them; I now purchase what I use.

MR. CRAMER.—There is one thing certain, that our worthy President is no more in favor of the new departure, which I think has begun over all the world, on this continent and in Europe. I think our friend Mr. Edward L. Wilson can give us some information (as he has been in Europe lately) as to whether photographers have taken hold of the dry plate or not.

Several calls were made for Mr. Wilson by the members of the Convention.

MR. WILSON.—I have nothing to say except what I have already stated. So far as I saw, in a large number of the cities of Europe, and I saw a number of photographers there too, they have not been using the nitrate bath for nearly two years. They all seemed to be making money, and yet using the dry plates all the time. I did not find but one photographer who was making his own plates, the rest of them preferred to buy them from experienced manufacturers. These are facts. Mr. Taylor has been in Europe since I have, and can give you fresher news perhaps.

MR. TAYLOR.—I give the very same report, namely, that the use of collodion is to a large extent discontinued in the studios of Europe.

MR. CRAMER.—There are a few things that I would like to speak about: the developer, first. There is a paper which is a good thing for covering the windows of the dark-room. It is called the Armstrong paper, and is the color of the envelopes that are used by the Government—a dark buff.

You can buy it anywhere. You must bear in mind that dry plates are as sensitive to the color rays of the sunlight in the same measure as the wet plates, only they are in both ways much more easily affected by light, very much more so. A friend of mine, whom you know very well, Mr. Robert Benecke, of our city, has made an experiment by taking a large stick, about three inches in diameter, and covering it with strips of paper of different colors—green, blue, red, yellow, and all sorts of colors—and he took a negative of them with a wet plate and one with a dry plate, and the effect of the different colors was the same in both cases, with the only difference that the impression was made so much quicker with the dry plate. There is one good thing in preparing the hypo, as follows: You take half a pound of alum, dissolve that with one gallon of water, and then add one pound of hypo after it is dissolved, and not before. The alum is dissolved in cold water. If you add the hypo and dissolve it, it will make a solution that will give the appearance of milk by slow decomposition between the two compounds. By using too much alum, it will have the effect of so perfectly tanning it, that by the time your plate is fixed it is as hard as leather—so hard that you can wash it afterwards without taking the precaution of having your water cold or cooled with ice, or anything like that. I have even tried one of the plates, and tried it over gas, which is a very severe test on any gelatine plate. After having it hardened sufficiently it will work all right; but if not, the gelatine will dissolve; but if you fix it in this bath in the same proportions, the plate will be just as hard as leather, and will bear any amount of washing, but will not fix as quickly. Use as follows:

Alum,	1 pound.
Water,	1 gallon.
Hypo,	1 pound.

Use the water cold. When it gets weak from being used a long time, throw it away and make a new solution. We always have a gallon bottle all mixed, to give it time to settle. If you use it immediately, it has a tendency to throw a fine precipitate

on the plate; but if you allow it to settle first, and then use it, there is no such annoyance.

MR. BEEBE.—I would like to make a suggestion in addition to what has already been said; that is, you will find it advantageous to fix the plates in an upright position. In the beginning I used to have a good deal of the precipitate fall upon the plate, and then there would be trouble in fixing. If the plates are placed on edge, you will have them much cleaner than you will have if you are not careful about this sediment.

MR. CRAMER.—I would like to explain further about preparing the pyrogallic developer, as stated this morning. According to my experience so far as this proportion of bromide of ammonium and the aqua ammonia goes, the object is not to have the ammonia in too large an excess. The following formula has given me the surest and best effects:

A.—Pyro,	75 grains.
Bromide of Ammonium,	20 “
Water,	25 ounces.
B.—Bromide of Ammonium,	40 grains.
Aqua Ammonia,	2 “
Water,	25 ounces.

Now, these are two solutions which we shall mix with equal parts, which makes a solution of three grains of the pyrogallic acid to the ounce of water. The other solution is:

Bromide of Ammonium,	40 grains.
Aqua Ammonia (the strongest that you can get),	2 drachms.
Water,	25 ounces.

Now, according to my experience, you have to be very careful in measuring the ammonia, and a little more or less makes a great deal of difference in the effect. Now I will tell you the reason I have added some bromide of ammonium. The bromide of ammonium has the effect of retarding the development and reducing the intensity, and the aqua ammonia the reverse. It accelerates the developing and brings up the shadows. So if you use too much bromide, you get the negative too strong. If you use too much ammonia, you will not get sufficient intensity, and furthermore, if you

use too much aqua ammonia, you will be liable to produce fog on the plate, and you will have *precipitation* in the shadows, which should not be, for the shadows should remain clear. You want a larger proportion of the aqua ammonia than Mr. Dixon recommended. He uses four times as much aqua ammonia as I use. I do not wish to dispute his experience, but I give you my little experience, and it is that there should be used one grain of bromide of ammonium to two parts of the aqua ammonia, which gives the desirable intensity, provided the exposure is correct. It will make no difference in the use of alcohol if the ammonia is used in that proportion. Now the reason why we added the bromide of ammonium—we have in one solution, which gives intensity, pyrogallic acid and bromide of ammonium, and in the other solution aqua ammonia and oxalate and enough bromide of ammonium to keep it from fogging. Now, if you use the two solutions together; if you pour a little into the dish while the plate is in, it is sure to fog and cause a yellow stain. Now, if you want the negative of very great intensity or with great contrast, you use two parts of this and one part of that; the pyro does not play a very important part; it is only the essential body that develops, the same as the protosulphate of iron in the wet plates.

I would advise you to make a stock solution in a bottle, and then use one part of the stock solution with nine parts of water, or use one ounce of the one to nine ounces of the other, or three ounces of the one to twenty-seven ounces of the other, according as you require it for use:

Alcohol,	15 ounces.
Pyro,	1 "
Bromide of Ammonium, without water,	120 grains.

Before much of the ammonia is dissolved in the alcohol, stir it up a little, without the use of water. If you have the pyrogallic acid dissolved in the alcohol without any water to it, it will keep, I shall not say forever, but it will keep a long time, as long as you want it to keep.

Q. Did you ever try acetic acid dissolved with pyro instead of alcohol?

A. Yes, sir.

Q. Take a good deal of acetic acid?

A. An ounce of acetic acid will dissolve two ounces of pyrogallic acid.

Q. One ounce of acetic acid?

A. Yes, sir; I have used that in the old silver process in redeveloping, and I have kept the solution as long as three months without any precipitate at all. If you do that you will change the proportions of aqua ammonia entirely; I am certain that it would neutralize the aqua ammonia while you *want* that much of the aqua ammonia. Now after you fix your pyrogallic acid in this way, all you have to do is to take an ounce of that by adding nine ounces of water, then you have ten ounces in all, and you will have exactly this solution, and you can prepare it in half a minute, to be sure that you have it all right, of course, always provided that you make that stock solution in the evening when you have plenty of time for weighing it out. Make this solution in the same way as follows:

Bromide of Ammonium,	480 grains.
Strong Ammonia,	3 ounces.
Water,	27 ounces.

Now if you use one ounce of this with nine ounces of water, you will have exactly the same solution as before stated.

Q. Which developer do you use, the ferrous oxalate or the pyro?

A. I use the pyrogallic acid.

Q. You use the best?

A. It is my favorite. There is one thing that I want to tell you about mixing the ferrous oxalate developer. I have had correspondents tell me that they could not mix one part of iron solution with four parts of oxalate solution without a sediment. One of the points in mixing the iron developer is that it should be perfectly clear and of a bright cherry-red color. In that case you will always find it to work well. If it is complained of, it is either too strong or too weak. In most cases it is not concentrated enough. You want a saturated solution, that is to say, as much as hot water will take up. I have an iron dish which is enamelled inside, and I dissolve it right in there. After it is dissolved I may have to take it up a little and let it cool. Some of

the salt will precipitate. That is a sure sign that your solution is saturated. If you have it that way, give it time to settle and then acidify a little with oxalic acid, and your oxalate solution is all right. Your iron must always be acid. Acidify with one drop of sulphuric acid to two ounces of iron solution. You can measure four ounces to one ounce of iron solution, without any precipitation. It will be perfectly clear and have a bright cherry color, and then be in the best working condition. For very short exposures, the new iron developer is the most powerful of all. I find that it is more powerful than the pyrogallic acid. For ordinary purposes it is too powerful. You have to mix it with a little bromide of potassium, or with some old solution that has been used for developing several plates in.

There has been a great deal said about mercury intensifying. I have found the way we have our intensifier works very well. I have not seen it fail, and if you are careful in washing, you will never have that yellow precipitation that has been mentioned. The best way is to avoid intensifying altogether. If you develop your plates right and give them the right exposure, there is no need of intensifying the plate. You can make your plate of the right intensity without intensifying, and could save the trouble of washing and intensifying and always get a finer negative if you do not intensify. But in case you should not get your negative strong enough, use the mercury intensifier combined with iodide of potassium and hyposulphite of sodium. Be very careful in mixing properly, and you will get fine results.

Q. Is there any advantage of mixing and then putting your negative into the ammonia?

A. I do not like that as well.

Q. It seems to give a very good color?

A. I do not think the negatives are as durable. Negatives prepared my way, I think, are more durable; but you have to be very careful not to put any more mercury in than is absolutely necessary to dissolve the iodide of potassium. I use six ounces of water, one ounce and a quarter of iodide of potassium; then you have the

saturated solution of the bichloride of mercury. Pour that in and stir it all the time with a glass rod. A red precipitate is formed, which will always re-dissolve as long as there is an excess of the potassium. The moment that they are both equalized, and the equivalents of both are in it, they will cease to re-dissolve the red precipitate, and it will remain red. Just as soon as that point is reached, as soon as you see that the solution remains just the least bit turbid, you must stop and put mercury in. In case you have added too much, add the least bit of iodide of potassium. Then, finally, you add an ounce of hyposulphite of sodium. The articles must be carefully weighed; for, if you add too much hyposulphite of sodium, it will not intensify at all; and if you don't add enough, it is apt to stain the negative.

On motion, the Convention at this point adjourned to Thursday, August 10th, 9 A. M.

OUR PICTURE.

WHILE in England a few weeks ago one of the pleasantest mornings there, was spent in the companionship, at his home in the country, of Mr. Frank Mason Good, whose views in the East have given him a world-wide reputation. Among the many evidences of taste and culture which surrounded this pleasant home, we noticed a fine garden of flowers, with a great variety of plants, from the rhododendron down to the tiny field-daisy. These lovely subjects for the camera had by no means been overlooked by our host. He had stores of magnificent negatives of them grouped not only in their natural homes, but made up into loose bunches, with little arrangement other than what nature provided, and placed in vases and receptacles of various forms whenever it would add to the beauty of the picture. A number of prints from these magnificent 8 x 10 negatives were presented to us by Mr. Good, with the permission to share the pleasure we had from them with our readers by making up a little mosaic picture of a number of them. With this consent our picture this month is thus made up, and we have, after our own whim, named it "*Field Fancies*," for such these lovely subjects seem

to be—fancies of an artist full of feeling and love for his work, gathered from the field.

Here we have groups of daisies and geraniums, and lilies and flags, and other beautiful flowers, bringing to our mind that lovely poem of Longfellow's, devoted in his early manhood to the "Flowers." With scarcely less potency of thought would he describe their beauty even now were he still living. He seems to have had in his mind just such groups as are before us. Not only he, but other sages have devoted many beautiful lines to the flowers. Listen to him for a moment:

Spake full well, in language quaint and olden,
One who dwelleth by the castled Rhine,
When he called the flowers, so blue and golden,
Stars, that in earth's firmament do shine.

Stars they are, wherein we read our history,
As astrologers and seers of old;
Yet not wrapped about with awful mystery,
Like the burning stars, which they beheld.

Wondrous truths, and manifold as wondrous,
God hath written in those stars above;
But not less in the bright flowerets under us
Stands the revelation of his love.

Bright and glorious is that revelation,
Written all over this great world of ours;
Making evident our own creation,
In these stars of earth, these golden flowers.

And the Poet, faithful and far-seeing,
Sees, alike in stars and flowers, a part
Of the selfsame, universal being,
Which is throbbing in his brain and heart.

We have chosen these subjects for our present issue because not only of their loveliness, but because of the desire we have that our readers should practice more in this direction, and take a hint, too, as to this kind of work. Do not go at it carelessly, but with all the taste and judgment in your power. Arrange your beautiful subjects carefully, and light them properly, and you will be rewarded not only by your results, but your taste will be elevated and you will find them acceptable to purchasers. Next to human beings as subjects for photography are the flowers, and so to this our poet gives testimony, who further writes:

In all places, then, and in all seasons,
Flowers expand their light and soul-like wings,
Teaching us, by most persuasive reasons,
How akin they are to human things.

And with childlike, credulous affection
We behold their tender buds expand;
Emblems of our own great resurrection,
Emblems of the bright and better land.

The prints were made on Mr. G. Genert's importation of Dresden paper "Eagle" brand, *pensé* color.

Editor's Table.

THE CHILDREN'S MUSEUM, a sample copy of which has been sent us, is a capital illustrated monthly for children, and must be as acceptable to the little ones as St. Nicholas. It is published at No. 6 Bond Street, New York, at one dollar a year, by Mr. CHARLES K. BILL, a gentleman well known to our fraternity as a solar printer. We wish his new enterprise success.

RESOLUTIONS ON THE DEATH OF MR. FITZGIBBON:

MILWAUKEE, Aug. 4, 1882.

Editor Philadelphia Photographer:

At a meeting of the Milwaukee members of the Photographers' Association of America, convened for the purpose of taking some appropriate action in reference to the news of the sudden death of Mr. J. H. FITZGIBBON, Editor and proprietor of the *St. Louis Practical Photographer*, Mr. GUSTAVUS BODE was called to the chair, and

the following resolutions, offered by Mr. W. A. ARMSTRONG, were adopted:

Resolved, That in the death of our co-worker J. H. FITZGIBBON, the whole fraternity of photographers have met with a loss that is doubtful if the lapse of time will ever repair.

Resolved, That although a pioneer in the art of daguerrotyping, his heart was still youthful in all things pertaining to the advancement of photography.

Resolved, That while we honor his memory, we deeply deplore his death, and tender our sincere sympathy to his bereaved family in this the sad hour of their affliction.

Resolved, That the Secretary be and he is hereby instructed to forward a copy of these resolutions to Mrs. Fitzgibbon and the photographic journals.

W. H. SHERMAN,
Sec'y of P. A. of A.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

The Monthly Bulletin
of L. W. Seavey's Worksh.
No. 8 Lafayette Place, N. Y.

AT THE INDIANAPOLIS CONVENTION.

In addition to our regular display in the Hall of the Photographic Association, we placed on Exhibition a large variety of backgrounds and accessories in a spacious store leased for the occasion, and situated near the "Bates House," in the heart of the city. This "auxiliary exhibit" was a grand success.

Space will not permit a complete list of our recent novel and useful productions, but photographers who are desirous of being up with the times should enclose a stamp, and ask for a glimpse of our latest sample photos.

Having supplied most of our convention patrons from the stock taken to Indianapolis, we shall be more prompt than heretofore in filling orders.

L. W. SEAVEY,
8 Lafayette Place, New York.

WANTED TO BUY.—One largest size Woodward's reflector solar camera, all complete. Any one having one not in use can address

A. C. NORTH,
45 Hall Block,
Toledo, Ohio.

FOR SALE CHEAP.—Backgrounds, cameras, and one solar camera; a reflector. These goods I am using now, but wish to refurnish and refit my studios, and offer them at a bargain. For particulars, address

A. C. NORTH,
45 Hall Block,
Toledo, Ohio.

A **FIRST-CLASS** operator in every respect may find a permanent situation by addressing the undersigned. Do not address me unless you know you are good.

E. KLAUBER,
Louisville, Ky.

WANTED.—The following assistants: a No. 1 crayon, water color, India ink, and pastel artist; assistant operator, good at all branches of the photographic business; also retoucher. Address immediately, with full particulars as to ability, references, salary, etc.,

A. C. NORTH,
45 Hall Block,
Toledo, Ohio.

WANTED IMMEDIATELY.—A first-class retoucher and printer, one who can assist in the general work of the gallery. Permanent situation to the right man. Address, with samples of work and wages expected,

C. I. PAGE,
Cortland, N. Y.

Wilson's Photographics. Ready.
Price, \$4.00.

FOR SALE.—Either my copying establishment or my portrait gallery, as it is impossible for me to attend to both satisfactorily. I have more agents, and a better established trade, conducted on a different principle from any other copying house; or I will sell my portrait gallery, which is first-class in every respect. No tin-types or cheap trade; do a business of about \$10,000 a year, invoices about \$4000. Price of copying business from \$500 to \$1000, according to the amount of stock taken. Price of gallery, \$2800, or will sell the entire business for \$3000, half cash, the other half the purchaser can pay in copying and enlarging for me, as I would then expect to go into the canvassing business. The population of this place is about 30,000. For full particulars, address

"COPYING HOUSE,"

Care of John Haworth, 626 Arch St., Phila.

WANTED.—Competent help at Lockwood's gallery, Ripon, Wisconsin. Lady and gentleman, good home, fair wages, and permanent situation to the right parties.

WANTED.—First-class printer and toner; place permanent; one who can retouch preferred.

Address J. A. H. PARSONS,
Wheeling, W. Va.

\$500 WILL buy handiest gallery in America; over post office. Population 6000; fitted for doing first-class pictures, from smallest to life-size. Fine north sky- and side-light; good trade and prices. Address, with stamp,
Box 303,
Washington, Ind.

A NEW LIME-LIGHT.—Ives' Patent Improved Lime-Light.

The Best,

The Cheapest,

The Easiest to Manage.

The apparatus required is remarkably compact, simple, and cheap. All who use the lime-light, and all who expect to use it, please send for descriptive circular.

F. E. IVES,
702 Chestnut St., Philada., Pa.

BACKGROUNDS PAINTED

BY

❖ W. F. ASHE ❖

Are found in most of the best galleries, not only in the States, but abroad.

NEW BACKGROUNDS AND ACCESSORIES

OF ALL KINDS ARE

BEING CONSTANTLY INTRODUCED.

W. F. ASHE, *Scenic Artist,*

106 Bleecker St., New York,

U. S. A.

THE NEW

EURYSCOPE.

TRY this new lens, and you will never buy any large portrait lenses. Voigtlander & Son's No. 7, and the smaller sizes, are very quick-acting, but as regards large-sized plates, the Euryscopes are far superior for groups, panel pictures, and large heads.

ADDRESS WILLIAM McLAUGHLIN, 125 S. First Street, Brooklyn (E. D.), N. Y., Corresponding Secretary of Association Operative Photographers of New York, for operators, printers, and retouchers.

No. 18. VIGNETTE **No. 18.**
PAPERS,
WAYMOUTH'S.

The old form of No. 18, Waymouth's Vignette Papers, oval, has been discarded, and a *new pear-shaped* style is now ready in its place. It is a beautiful piece of gradation and prints perfectly. Price \$1.25 per dozen. For sale by all dealers. See advertisement.

No. 18. NOW READY. **No. 18.**



WILSON'S PHOTOGRAPHICS

Shows you how to group and pose children naturally and gives fine examples of work. Read the partial index herein. \$4.

MAKE YOUR OWN ENLARGEMENTS.—The Patent Gem Solar Camera will print the finest enlargements on albumen, platinum, or plain paper. Only \$60. Send for reduced price-lists of larger instruments. D. A. WOODWARD,
Baltimore, Md.

NOTICE OF REMOVAL.—Mrs. Clarke, Artist, late of 561 Druid Hill Avenue, Baltimore, begs to inform her friends and the photographic profession that she has removed to 2104 North 20th St., Philadelphia, Pa., where she will be happy to receive any commission for water-color painting. Terms, etc., on application to Mrs. Clarke, or to the office of the *Philadelphia Photographer*.

WANTED.—At once, a thoroughly competent and reliable operator and poser. Single man preferred. Address, for particulars,

B. FRANK SAYLOR,
Lancaster, Pa.

S. G. NIXON, Portrait Artist, 813 Arch Street, Philadelphia, Pa. Solar enlargements finished in crayon, water color, and Indian-ink in true artistic style, and the likeness and expression faithfully preserved. Also small colored and Indian-ink work, etc. Terms moderate.

NOTICE.

THE WONDERFUL EURYSCOPES and NEW PORTRAIT LENSES.

Just received, a large invoice of the above Lenses. Those who have not succeeded in getting them, will do well to send in their orders at once.

BENJAMIN FRENCH & Co.,
Boston.



WILSON'S PHOTOGRAPHICS

Is the most complete, thorough, photo-instruction book ever published. Second thousand in store. See advertisements. \$1.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

A lady would be obliged for an opportunity to attend reception-room or retouch negatives. Has had ten years' experience in the best rooms in Boston. Address Retoucher, care J. S. Wright, Tully, Onondaga Co., New York.

As operator in a good gallery, can do first-class work, and want a permanent position. Do not use liquors or tobacco; for terms, etc., address J. I. Ream, Van Wert, Ohio.

An English Photographer, having a thorough knowledge of photo-lithography; at present, and for the last eight years making transfers for an English architectural journal, is desirous of obtaining a similar position in any part of America. Advertiser is also a good general photographer. Address A. Borland, Photographer, Wilmslow, Cheshire, England.

By first-class photographer, of unquestionable character and standing, a position as operator in good city gallery, sea-coast town in northern Florida preferred. M. L. Cormany, Lock Box, 2594, Rockford, Ill.

A lady would like a situation in photographic rooms; has had a little experience at retouching, and willing to make herself useful. Address Miss L. J. G., Box 1022, Norwich, Conn.

A photographer of large experience is open for an engagement; works dry plates successfully; wants to get back to the States. Address W. H. Cook, 332 Queen St., West Toronto, Ontario, Can.

NEIDHARDT'S GELATINE DRY PLATES.

GUARANTEED EQUAL TO ANY IN THE MARKET.

The magnificent display of pictures made on these plates by various photographers at the INDIANAPOLIS CONVENTION last month, convinced all who saw them that the

"NEIDHARDT PLATE CAN'T BE BEATEN."

FORMULA FOR WORKING THEM, FREE.

TRY OUR "NEW" DEVELOPER.

PRICES OF NEIDHARDT'S PLATES.

Size.	Per doz.	Size.	Per doz.
3 1/4 x 4 1/4	\$0 65	6 1/2 x 8 1/2	\$2 40
4 x 5	95	8 x 10	3 60
4 1/2 x 5 1/2	1 00	10 x 12	5 20
4 1/2 x 6 1/2	1 25	11 x 14	6 80
5 x 6	1 35	14 x 17	10 00
5 x 8	1 65	17 x 20	17 50
5 1/2 x 7	1 75	18 x 22	20 00
5 x 8	1 85	20 x 24	24 00

11 x 14 and larger packed in boxes containing half-dozen.

MANUFACTURED BY THE

GARDEN CITY DRY PLATE COMPANY,

No. 360 Milwaukee Avenue, Chicago.

Order from your stock-dealer; if they can't supply you, apply to us.



J. L. CLARK,
GOLD AND SILVER REFINER,
 ASSAYER AND SWEEP-SMELTER,
 REMOVED TO
 823 Filbert St., Philadelphia, Pa.

RETURNS MADE IN STRICTLY PURE CHEMICALS.

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ALBERT MOORE THE **SOLAR ENLARGER,**
 THE LONGEST, LARGEST, AND BEST.
 828 Wood Street, Philadelphia.

MALLINCKRODT CHEMICAL WORKS,

Successors to G. MALLINCKRODT & CO.,

ST. LOUIS, MO.,

MANUFACTURE A FULL LINE OF

Pure Photographic Chemicals,

AMONG THEM

PURE ACETIC ACID; CONCENTRATED AMMONIA; IODINE, Resublimed; CYANIDE OF POTASSIUM; PYROGALLIC ACID, Resublimed and very pure; IODIDE AND BROMIDE OF AMMONIUM, CADMIUM, CALCIUM, &c.; SULPHURIC ETHER, highest concentration, free from Acid and absolutely pure; CHLORIDE OF GOLD CRYSTALS, extra dry and free from excess of Acid; NITRATE OF SILVER CRYSTALS, dry, neutral, and absolutely pure; CHLORIDE OF GOLD and SODIUM; NEUTRAL OXALATE OF POTASSIUM.

We ask the attention of Photographers to the superior quality of our Chemicals, and request a trial of them. Special inducements to dealers and large purchasers.

Specify "MALLINCKRODT'S" when ordering from Stock-Dealers.

1882.

Photographers'
 Booksellers,
 Stationers,
 and
 Newsdealers
 Publishers of
 Hints on Burnishing
 Photographs,
 AND THE
 Photographers' Monthly
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We are
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ALL REQUISITES
 PERTAINING
 to the
ART-SCIENCE
 of
PHOTOGRAPHY.

Douglass, Thompson & Co.

Nos. 229 & 231 State Street,

GAYTON A. DOUGLASS.
 HENRY G. THOMPSON.

CHICAGO.

GELATINE BROMIDE DRY PLATE.

Beebe's, Cramer & Norden's, Eastman's, Carbutt's.

Outfits, and everything used in Dry Plate work.



We invite cash trade, believing it for the best interests of all parties to adopt the pay as you go system.

With us, cash with order, or on C. O. D. purchases, insures a discount of **5 PER CENT**, deducted from bill, in addition to the very low prices we offer.

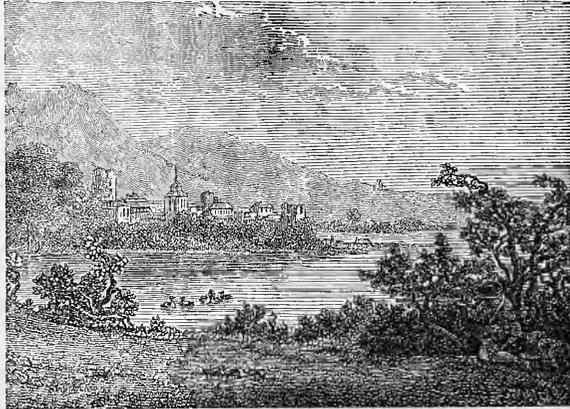
A practical knowledge of the Art-Science of Photography gives us a special advantage in meeting all demands.

Our Warerooms are commodious, located conveniently for business, our stock ample for all usual demands, fresh, carefully selected, and we can sell at prices satisfactory to the consumer. **We deal in nothing but supplies for Photography**, devoting our whole time and energies to the wants of our patrons, thus offering a special advantage to such who appreciate care and attention. We study promptness in meeting all favors entrusted to us, and guarantee exactness.

The Book for the OUT-DOOR WORKER Specially. Now is the time to read

ROBINSON'S Pictorial Effect in Photography.

SHOULD BE READ BY EVERY
NEGATIVE MAKER



PRACTISING IN AND OUT OF
DOORS.

CONTENTS.

CHAP.

- I. Introductory.
- II. The Faculty of Artistic Sight.
- III. Balance of Lines and Contrast.
- IV. Balance—Example.
- V. Balance—Examples—(continued).
- VI. Unity.
- VII. Examples—Expression.
- VIII. Practice—The Choice of a Subject.
- IX. Simple Rules.
- X. Figures in Landscape—Truth.
- XI. The Sky.
- XII. The Legitimacy of Skies in Photographs.
- XIII. The Composition of the Figure.
- XIV. Pyramidal Forms.
- XV. Variety and Repetition.
- XVI. Variety and Repetition (continued)—Repose—Fitness.

CHAP.

- XVII. Portraiture.
- XVIII. Portraiture—The Management of the Sitter.
- XIX. Portraiture—The Pose.
- XX. Portraiture—Groups—Proportion.
- XXI. Backgrounds.
- XXII. Accessories.
- XXIII. Some Old Notions Touching Portraiture.
- XXIV. Chiaro-oscuro.
- XXV. Chiaro-oscuro—Detail or Definition.
- XXVI. Chiaro-oscuro—Various Arrangements of Light and Shade.
- XXVII. Chiaro-oscuro—Various Arrangements of Light and Shade (continued).
- XXVIII. Chiaro-oscuro—Breadth.
- XXIX. Chiaro-oscuro—Portraiture—The Studio.
- XXX. Chiaro-oscuro—General Considerations.
- XXXI. Conclusion.

No one can study this excellent work without being better able to pose and compose his subjects, and to light them more artistically. Those who are unskilled comparatively, hardly realize how much there is to learn that is of value to them. This book will open their eyes and enlighten them, if they can but see when their eyes are open.

**IT IS THE MOST POPULAR PHOTO. WORK EVER PUBLISHED IN EUROPE.
IT IS THE BOOK WANTED NOW BY THE AMERICAN PHOTOGRAPHER, TO POST
HIM ON THE ART OF PHOTOGRAPHY.**

Cloth, \$1.50; Paper, \$1.00. Illustrated.

"Mr. H. P. Robinson's *Pictorial Effect in Photography* is a gem, the par excellence of all photographic books. Its pages are full to a letter of choice and valuable instruction. If there is one who has not read it I would advise him to do so at once."
—G. F. E. PEARSALL, *Brooklyn, N. Y.*

WHAT ITS READERS SAY:

"*Pictorial Effect* is a success."
—M. H. ALBEE,
Marlboro, Mass.

"I would advise all photographic art students to obtain a copy of Mr. H. P. Robinson's *Pictorial Effect in Photography*, one of the best and most complete works ever published on the subject for the benefit of photographers. Read it over and over. Every page teaches a grand lesson."
—JAMES MULLEN, *Lexington, Kentucky.*

EDWARD L. WILSON, Publisher, 912 & 914 Chestnut St., Philada.

THE PHOTOGRAPHER TO HIS PATRONS

Is a neat little leaflet of twelve pages of the size of the four pages below. It tells your patrons what you want them to see on **Photography as an Art; When to Come; How to Come; How to Dress; How to Behave; and about Children, Business, Frames, Copying, Coloring, and Prices.**

"THERE'S MILLIONS IN IT."

PHOTOGRAPHERS OF AMERICA:

In these times of competition we all want something to *stir up business*. It is believed that no means of advertising, half so good, was ever offered to photographers, as that acceptable little leaflet,

"The Photographer to his Patrons."

Its utility and usefulness are proven by the fact that it has been demanded and translated into Spanish and German; that over

1,000,000 copies have been sold,

and that hundreds of photographers have written to the author, testifying to its great value as a positive *business-bringer*.

I take the liberty of sending you a copy, and ask you, for your own interest, to read it carefully all through. I have, since its publication, issued two other works of a similar character—*Pretty Faces*, at half the price; and *Something New*, at the same price. But the choice still seems to be for the old favorite, and I am still supplying it continually. The sample herewith is of a lot lately printed; and I desire to call your especial attention to a method which will secure you all the advantages of this work as an

(i)

the expense of hiring a man and team to distribute then in adjoining towns. I shall, undoubtedly, want more when these are gone. I got \$13.50 for the advertisements."

We endeavor to get them up in attractive and elegant style; and in order to protect those who use them in the enjoyment of them, we have *copyrighted* them, and trust no one will attempt their degradation by cheap and badly-made copies of them. We can print them as cheap as any one can for the quality, and have

RECENTLY REDUCED THE PRICES

to the following scale:

500 copies,	\$9 00
1000 "	15 00
3000 "	36 00
5000 "	50 00

Some photographers have had as many as 25,000, using them continually. Please look into the matter, and send on your orders for all seasons.

We supply, free of charge, several beautiful fancy cuts for the covers; but where three of the pages are covered with other matter, the style of the present sample is the neatest. You can have your own choice.

As already said, these leaflets are used all over the country, often by our leading photographers, from some of whom were received the following testimonials.

(iii)

advertisement, and yet cost you little or nothing. *The four pages of the cover are yours, to use for what you please.* You only need the first page for yourself. Get advertisements from your neighbors, at a proportionate figure, for the rest, and your leaflets cost you only the expense of distribution.

Messrs. Albert & Son, Alexandria, La., have seven advertisers, another recently had eight. From six of them he got \$1.75 each, and from two, \$2.25 each; making \$15—the cost of 1000 leaflets. Examine the copy herewith.

Mr. H. C. Norman, Natchez, Miss., who has adopted the same plan, writes, viz.: "As an advertising medium the leaflets have no equal. Two hours secured me seven advertisements, amounting to \$17.50, leaving me \$5.00 balance for express charges; thus securing me 1000 leaflets for nothing. With a little energy any photographer can secure cards enough from his friends to pay for all the leaflets he requires, and he should not be without them. I have not only seen, but felt, the result of using them."

Mr. L. B. Truax, Swanton, Vt., writes, viz.: "The leaflets have been received and prove a decided benefit to me. I consider them the best advertising medium I have yet found. The merchants who advertised on the covers seem to be of the same opinion; one of whom went to

(ii)

KEEP YOUR EYE ON THIS!



TESTIMONIALS:

"Send 5000 in English and 2000 in German."
JNO. A. SCHOLTEN, St. Louis.

"Let me have a lot as soon as printed."—J. F. RYDER, Cleveland, O.

"It works satisfactorily in every way."—A. N. HARDY, Boston. (Mr. Hardy has had 4 or 5 lots.)

"They are the best business-cards a photographer can have."—T. S. ESTABROOKE, N. Y.

EDWARD L. WILSON, *Photo. Publisher,*
912 & 914 Chestnut St., Philada.

(iv)

DEALERS' DIRECTORY.

The following houses are to be recommended as the best for photographers in their localities.

S. T. BLESSING, New Orleans, La.	Douglass, Thompson & Co. "Great Central," Chicago, - - - Ill.	JAMES H. SMITH, Quincy, Ill.
H. A. HYATT, Mound City Photo. Stock House, 411 North Fourth St., St. Louis, Mo.	D. J. RYAN, Savannah, Ga.	J. C. SOMERVILLE, St. Louis, Mo.
SCOVILL MANF'G CO., 419 & 421 Broome St., New York.	D. TUCKER & CO., Buffalo, N. Y.	BLESSING & BRO., Galveston, Texas.
G. H. CODMAN & CO. Boston, Mass.	WILSON, HOOD & CO., 825 Arch Street, Philadelphia, Pa.	B. FRENCH & CO. Boston, Mass.
WM. J. HAZENSTAB, 406 Market St., St. Louis, Mo.	EDWARD L. WILSON, Photo. Publisher, LANTERN SLIDES, 912 & 914 Chestnut St., Philadelphia.	THEO. SCHUMANN, Atlanta, Ga.
OSCAR FOSS, San Francisco, Cal.	G. B O D E, Milwaukee, Wisconsin.	W. D. GATCHEL, Cincinnati, Ohio.

GET THE BEST!

CRAMER & NORDEN'S
ST. LOUIS
EXTRA-RAPID DRY PLATES.

WARRANTED PERFECT,

With Latest Formulas and Complete Directions for Use.

FOR SALE BY

G. GENNERT, 105 William Street,
 New York, General Eastern Agent.
 SCOVILL MFG. CO., 419 Broome
 Street, New York.
 ALLEN BROS., Detroit, Mich.
 H. C. FRANTZ, Toledo, Ohio.
 E. J. WECKS, Jackson, Mich.
 JOHN I. SHAW, Pittsburg, Pa.
 DAVID TUCKER & CO., Buffalo,
 N. Y.
 H. D. MARKS, Rochester, N. Y.
 I. N. McDONALD, Albany, N. Y.
 THOS. H. McCOLLIN, Philadelphia,
 Pa.
 WOLF & CHEYNEY, Philadelphia,
 Pa.
 WILSON, HOOD & CO., Philadel-
 phia, Pa.
 RICHARD WALZL, Baltimore, Md.
 BACHRACH BROS., Baltimore, Md.
 JAMES LETT, Harrisburg, Pa.
 BENJ. FRENCH & CO., Boston,
 Mass. [Mass.
 C. H. CODMAN & CO., Boston,
 BLESSING BROTHERS., Galves-
 ton, Texas.
 S. T. BLESSING, New Orleans, La.
 THEO. SCHUMANN, Atlanta, Ga.
 W. G. ROBINSON, Atlanta, Ga.
 J. H. KIRK, Wheeling, W. Va.
 J. D. DEXTER, Portland, Me.
 GEO. R. ANGELL, Detroit, Mich.

GUSTAV BODE, Milwaukee, Wis.
 WM. S. CONNER, Pittsburg, Pa.
 DOUGLASS, THOMPSON & CO.,
 Chicago.
 HIRAM J. THOMPSON, Chicago.
 N. C. THAYER & CO., Chicago.
 C. F. RICE, Chicago.
 J. V. ESCOTT & SONS, Louisville,
 Ky.
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 Ky.
 W. J. HAZENSTAB, St. Louis.
 H. A. HYATT, St. Louis.
 J. C. SOMERVILLE, St. Louis.
 J. F. INDERMILL, St. Joseph, Mo.
 JORDAN & SHEEN, Cincinnati, O.
 P. SMITH & CO., Cincinnati, O.
 P. SMITH & CO., Columbus, O.
 H. LIEBER & CO., Indianapolis, Ind.
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 McINTYRE & CO., London, Ont.
 PECK BROS., Grand Rapids, Mich.
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 G. MOSES, New Orleans, La.

HEARN'S STUDIES

IN

Artistic Printing.

By C. W. HEARN, Author of the "Practical Printer."

SIX FINE CABINET AND PROMENADE PORTRAIT STUDIES.

AMONG OTHER THINGS IT CONTAINS.

Suggestions on the Choice of Albumen Paper—All the Best Silvering Baths, and Methods of treating the same—New Views on the Relation of the Silver Bath to the Time of Floating—The Different Effects Caused by the Time of Floating—How to Tell when Paper is Floated too Long or too Short a Time—Table for Time of Floating Paper under all Circumstances—The Importance of Care in Printing in Varied Ways—The Important Relation Printing from the Negative Bears to the Toning Bath—Fast Printing—Dialogue between "Joe" and a Friend—The Way to Success in Toning Lies in Printing—The Different Effects Caused in Printing by the Preparation of the Silver Bath—The Relation of the Silver Bath to the Printing from the Negative, and from this to the Toning Bath—Acetate of Silver—Success or Failure in Toning Caused by the Strength, Purity, and Alkalinity of the Silver Bath—*Harmony*, its Importance in Photography—Why its Neglect Causes such Disastrous Results—The Beautiful in Toning, and How to Obtain it—A Few Hints About Managing Toning Baths—Formulæ for Printing "Our Studies," as Given under Respective Headings—Impurities of Toning Baths—How it Affects the Toning, and How to Remedy such Baths—Fixing and Washing—Brilliance of the Finished Picture Attained by the Final Washing—Various and Valuable Hints about Finishing the Photographs, etc., etc.

Mailed to any address on receipt of price, \$3.50, by any stock-dealer, or by

EDWARD L. WILSON, Photo. Publisher,

912 & 914 CHESTNUT STREET, PHILADA

SOLD BY ALL DEALERS. ASK TO SEE IT.

SINGHI'S

VIGNETTING ATTACHMENT

FOR PRINTING FRAMES.

To be used with WAYMOUTH'S VIGNETTE PAPERS.

(Patent Applied for.)

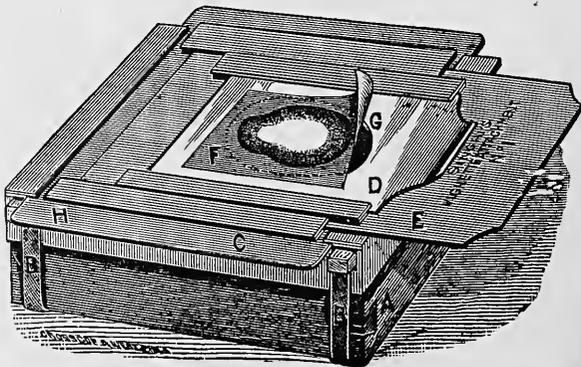
J. F. SINGHI, Inventor.

The best arrangement for adjusting these best of vignetting appliances in the world.

5x8 size now ready.

Price, by mail, \$1.50.

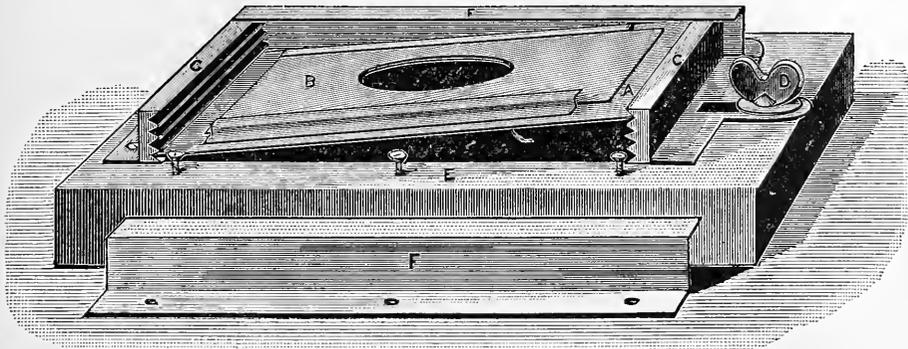
See description in this Magazine, June, 1881, or in *Wilson's Photographics*.



FOR SALE BY ALL DEALERS.

McDONALD'S METALLIC VIGNETTER.

PATENT APPLIED FOR.



THE GREATEST LABOR-SAVING INVENTION OF THE AGE.

The Latest and Best Attachment ever offered to the Fraternity. Easily attached to ordinary Printing Frames. Can be changed to thirty different positions—any one of them in from three to five seconds. Will save your printer nine-tenths of his time in setting his vignettes. The finest and most difficult effects can be produced as easy as the most simple. The card-board slides can be cut any desired shape or size. No Photographer can afford to be without them, for they will save TIME, LABOR, MONEY, and REPUTATION for producing FINE WORK. ORDER A SAMPLE.

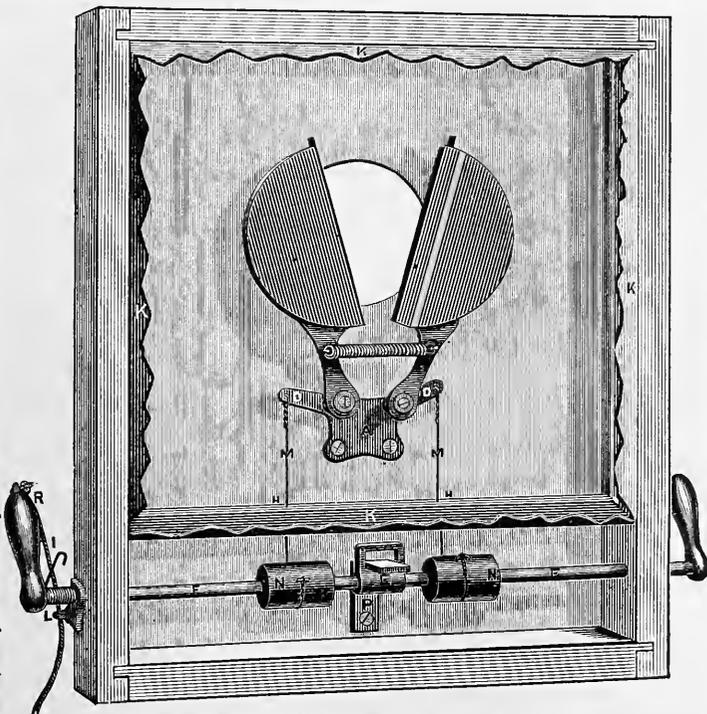
PRICE LIST.

For $\frac{1}{4}$ size Frame.....per doz.	\$6.00	For 5x8 size Frame.....per doz.	\$7.50
“ $\frac{1}{2}$ “ “ “ “ “ “	7.50	“ $6\frac{1}{2} \times 8\frac{1}{2}$ “ “ “ “ “	9.00
“ $4\frac{1}{2} \times 6\frac{1}{2}$ “ “ “ “ “ “	7.50	“ 8x10 “ “ “ “ “	9.00
“ 5x7 “ “ “ “ “ “	7.50		

NOTE.—The 5x8 size is now ready; other sizes will be ready in a few days. $4\frac{1}{4} \times 5\frac{1}{2}$ and $4\frac{1}{2} \times 6\frac{1}{2}$ Vignettes are same size. 5x7 and 5x8 are same.

McDONALD'S IMPROVED PHOTOGRAPHIC SHUTTER.

This Common Sense has been lately improved, and is now without question the best in the market. Can't get out of order; can be depended on in every instance for a clear, quick exposure. Does not create dust in the camera; can be left open while focusing; can be operated from any part of the room; can be attached to any 8x10 camera-box in a few minutes. They are now in use by HUNDREDS OF FIRST-CLASS PHOTOGRAPHERS. Use one a week, and you would not part with it.



[Above cut shows the Shutter INSIDE of the Camera Box.]

8x10 box size, each.....\$5 00
 Odd sizes, to order..... 6 50
FOR SALE BY ALL DEALERS.
PRICE:—

HIRAM J. THOMPSON, 84 Wabash Avenue, Chicago.

NEW DRESDEN
 EXTRA  BRILLIANT
 ALBUMEN PAPER
 WHITE, PINK, PENSÉ.

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Cutting the Paper.
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Vignette Printing-blocks.
Treatment of Negatives before Filling of the Boards. [Printing.
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Medallion and Arch-top Printing.
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CONTENTS.

Printing Intense Negatives.
Printing Weak Negatives.
A Few More Remarks about Printing--Treatment of Broken Negatives.
Cutting the Prints.
Washing the Prints.
Acidifying the Prints.
Toning Baths.
Artistic Toning.
Fixing Baths and Fixing Prints.
Washing the Prints.
Mounting the Prints.
Finishing the Prints.
Salting the Paper. [Paper.
Positive Baths for Plain Salted Silvering Plain Salted Paper.
Drying, Fuming, and Cutting the Paper. [Printing.
Treatment of the Negatives before Printing-in False Backgrounds.
General Plain Paper Printing.

Waymouth's Vignette Papers.
Further Treatment of the Prints after Printing.
Causes of Failures in Albumen and Plain Paper Printing.
Selection of the Porcelain Plates.
Cleaning the Porcelain Plates.
Albumenizing the Porcelain Plate
Making the Porcelain Collodion.
Coating, Fuming, and Drying the Plates.
Porcelain Printing-boards.
Placing the Sensitive Plate on the Board for Printing.
Printing Vignette Porcelains.
Printing Medallion Porcelains.
Washing the Porcelains.
Toning the Porcelains.
Fixing the Porcelains.
Final Washing of the Porcelains.
Drying and Tinting the Porcelains
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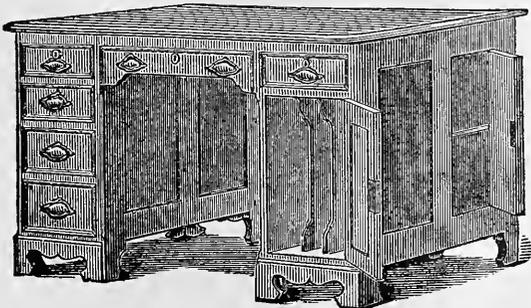
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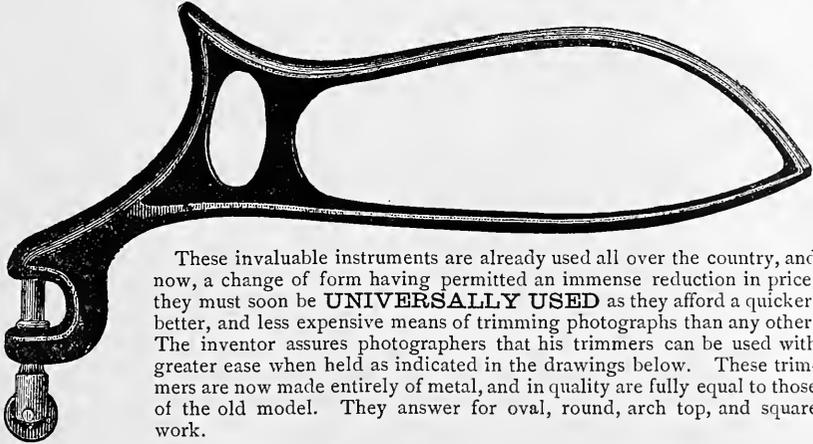
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LESSON.

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- P. PRINTING ON VARIOUS SURFACES.
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SUMMARY OF CONTENTS.

	PAGE		PAGE
Proceedings of the Third Annual Convention of the Photographers' Association of America. Third Day—Morning Session,	289	Photographic Stock-dealers' Association of America,	314
Afternoon Session,	291	Obituary,	315
Fourth Day—Morning Session,	301	A Suggestion to Photographers,	317
Another Association,	313	Our Picture,	317
		Editor's Table,	319

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 Photography.
 Views, Formula for.
 Lantern Slides and Enlargements.
 Leaking of the Glass Studio.
 Lens or Objective, The.
 Lenses, Angle of View Possible with.
 Choice of.
 Forms of.
 Light and Accessories.
 and Shade, or Chiaro-Oscuro.
 Reflected.
 Lighting, Rembrandt's Style of.
 "Lightning" Processes.
 Linen, Printing on.
 Lubricating the Prints.
 Managing the Model.
 Manipulations, The.
 Manipulatory Miseries.
 Marbled Appearance of the Paper.
 Red Lines on Prints.
 Measles in Prints.
 Measles or Mottles on Prints.
 Measuring, Metrical.
 Medallion Printing.
 "Megatypes."
 Metallic Spots in Prints.
 Model, Study the.
 Mounting and Finishing.
 Paste.
 without Cockling.
 Nature, Study.
 Negative, A Generally Wretched.
 Negatives, Black and White.
 Defects in.
 "Doctoring" for Printing.
 for Solar Printing.
 Preserving of.
 Printing Dense.
 Printing Weak.
 Removing Stains from.
 Network, Formation on the Film of.
 Objective or Lens, The.
 Objects, Distances of.
 Only Lines in Negatives.
 Opaque for Negatives, Gihon's.
 Outside Photography.
 Chemistry of.
 Work, Art Principles in.
 Work, Exposure.
 Over-Exposure of Bromo-Gelatine Plates.
 Paper, Cockling of the.
 Drying the.
 Expansion and Contraction of.
 Fuming the.
 Keeping White the.
 Marbled Appearance of the.
 Sensitizing the.
 Woolliness of the.
 Perspective.
 Photography, Landscape.
 Phototypes, Basis for.
 Exposure of the Negatives for.
 Husnik's Substratum for the Plates for.
 Inking the Films for Printing.
 Plain Paper, Printing on.
 Platinotypes, Sensitizing the Paper for.
 Cleaning and Washing.
 Development of.
 Exposure of the Paper.
 Porcelain, Printing on.
 Posing, Suggestions about.
 Preserving Negatives.
 Printing, Art in.
 by the Solar Camera.
 Dense Negatives.
 Development Process of.
 Flat Negatives.
 Medallions.
 on Albumen Paper.
 on Various Surfaces.
 Stereoscopic Views.
 Temperature in.
 Vignettes.
 Weak Negatives.
 Printing-Bath, The.
 Decolorizing the.
 Strengthening the.
 Printing-Room, The.
 Prints, Acidifying the.
 Blistering of the.
 Burnishing the.
 Defectively Toned.
 Drying the.
 Enecaustic Paste for.
 Fading of the.
 Fixing.
 Glace.
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 Measled or Mottled.
 Metallic Spots in.
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 "Spotting" the.
 Touching Out.
 Treatment with Alum of the.
 Trimming.
 Warm-Water Washing of.
 Washing in "Lead Water."
 Washing the.
 With Red Marbled Lines.
 Yellowness of the.
 Productions of Photography, The.
 Public, Relation of the Photographer to the.
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 the Paper.
 the Plate.
 Shortening the Exposure.
 Silver Iodide, to make.
 Saving, Method of.
 Solutions, Volumetric Test of.
 Sky and Clouds, The.
 Softness in Lighting.
 Solar Camera Printing.
 By Artificial Light.
 Camera Printing Negatives, retouching.
 Negative Reducing Process.
 Retouching Process.
 Stains from Negatives, Removing on the Hands.
 Stereoscopic Views, Printing.
 Negatives Preparing.
 "Stop," Use of the.
 Streaks and Stains in Negatives.
 Strengthening Gelatine Emulsion Plates.
 the Printing-Bath.
 Studio, the Glass.
 Construction of the.
 Curtains.
 How to Build a.
 Leaking of the Glass.
 with Curved Light.
 Working Plans for Construction.
 Subject, Choice of.
 Treatment of.
 Table for Converting Centigrade into Fahrenheit.
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 Millimetres into Inches, etc.
 Temperature in Printing.
 Tent, The Dark.
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 Bath, Treatment of the Gold.
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 Use of the Diaphragm.
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 Views of Interiors.
 Exposure for.
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 Paper, Weymouth's.
 Wastes and their Worth. [of.
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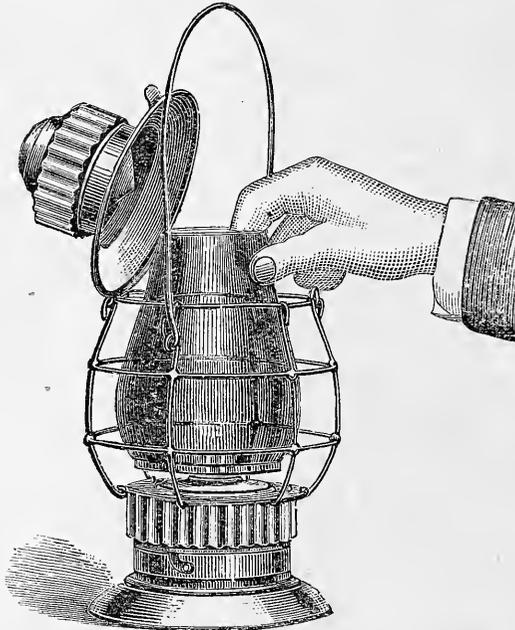
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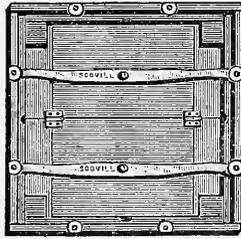
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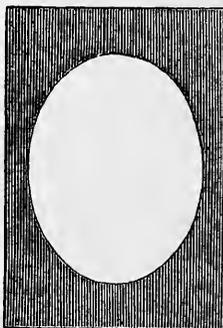
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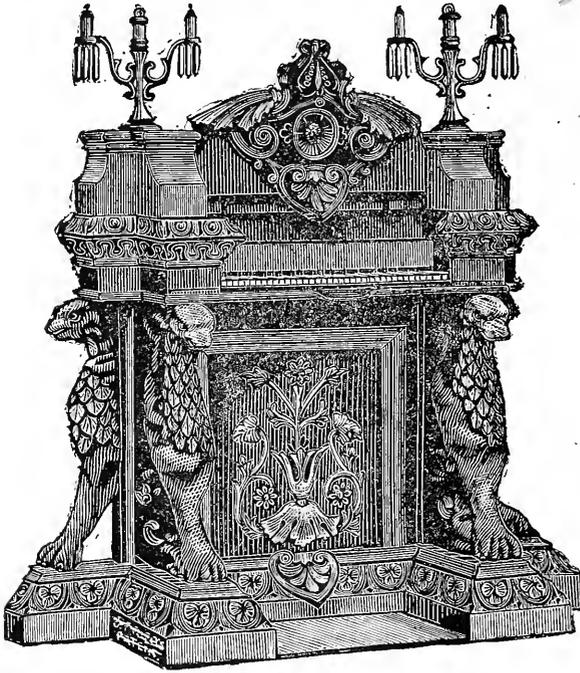
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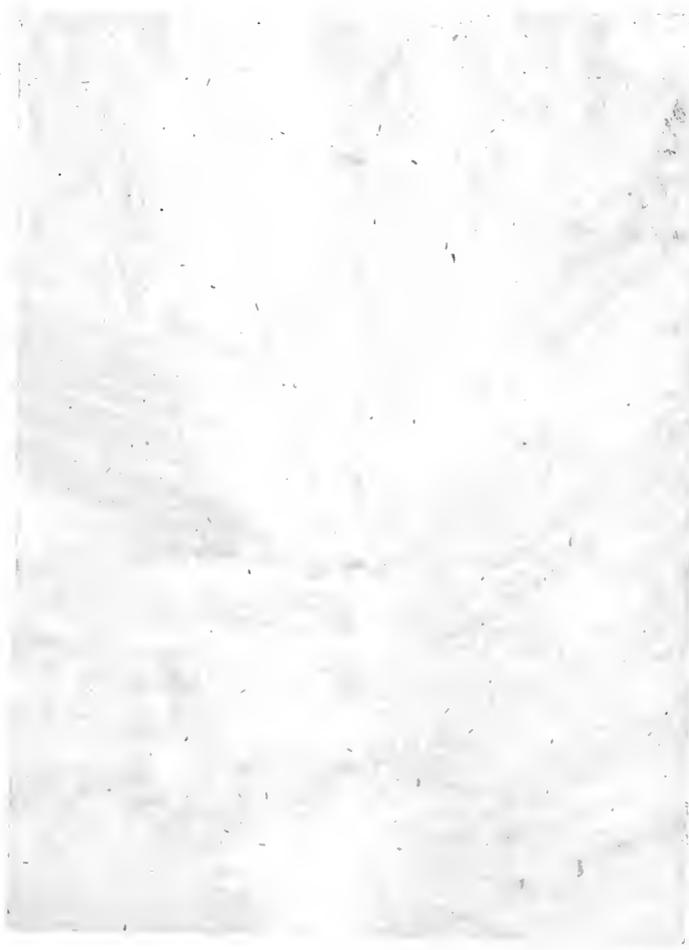
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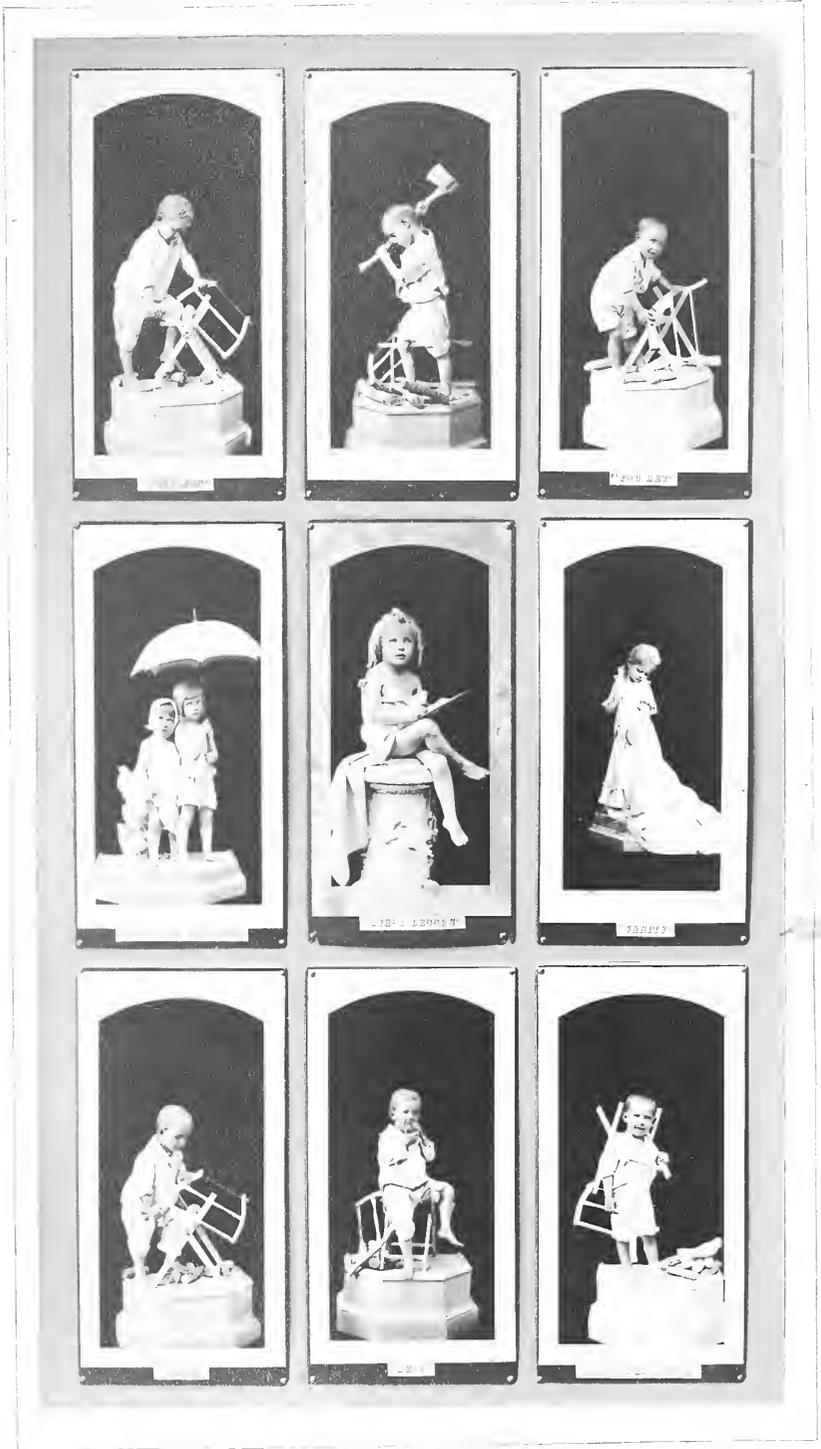
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Vol. XIX.

OCTOBER, 1882.

No. 226.



PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

PROCEEDINGS OF THE THIRD ANNUAL
CONVENTION HELD IN INDIANAPOLIS,
INDIANA, AUGUST 8TH, 9TH, 10TH, AND
11TH, 1882.

(Continued from page 287.)

THURSDAY—MORNING SESSION—AUGUST
10TH, 1882.

The President in the chair.

THE PRESIDENT.—The Convention will please come to order. I believe you all understand that, by the adoption of the resolution amending the constitution, that this is the time and day for the choice of a locality for 1883, and for the election of officers. The Secretary will read the report of the committee.

THE SECRETARY (reading).—The committee reported that the next Convention meet the first Tuesday of August, 1883, in Milwaukee.

MR. KLAUBER.—Mr. President, before proceeding any further, I would like to amend that we meet at Cincinnati.

(This motion was seconded by several with tremendous applause.)

MR. HALL.—This thing was thoroughly canvassed in the committee meetings.

After a good deal of wrangling and noise, the President said: There is a communication in reference to the location that will be read. Mr. Beebe will read it to you.

MR. BEEBE (reading)—

NORWALK, OHIO, August 8, 1882.

JOHN CADWALLADER, Esq., Secretary

P. A. of A., Indianapolis, Indiana:

SIR: You are respectfully requested to place before the Association the name of Lakeside, Ottawa County, Ohio, as the place for the permanent meeting of the Association. It is beautifully situated on the shore of Lake Erie, accessible by rail from Sandusky and Toledo, directly opposite—good bathing, fishing, good air, quiet, restive. I am, sir,

Yours respectfully,

G. W. EDMONDSON.

MR. KLAUBER.—I move that the communication be referred to a committee of three to report at our next regular meeting.

The motion was seconded by several, but no vote reached.

A half hour more was expended in a running debate on the merits of various localities, when the President said: Gentlemen,

we will now proceed with the election, and I will appoint as tellers, Mr. D. H. Cross, Mr. D. H. Canfield, Mr. Dixon, of Toronto; Mr. F. A. Simonds, Chillicothe; Mr. Tomlinson, Detroit; Mr. Loomis, Stillwater; Mr. F. A. Place, Warsaw.

A MEMBER.—I would like to ask what facilities have been presented by Milwaukee?

THE PRESIDENT.—I believe Milwaukee, can talk for herself; I believe there is somebody here to talk for her.

MR. SHERMAN, Milwaukee.—In regard to the building appropriated for the Convention, it is probably as fine a building for the purpose as can be found in the Union. We have a magnificent exhibition building large enough to take care of the whole Convention, and large enough for the exhibition also.

THE PRESIDENT.—All under one roof?

MR. SHERMAN.—All under one roof and centrally located—we have beautiful attractions; we have very large hotels—abundant hotel accommodations, and we have a fine climate. It is always comfortable in summer, and we have all the facilities for the accommodation of the Convention there. The Association will be met with a hearty welcome and the hospitality of the city, for which Milwaukee is celebrated all over the Union, there is no one will dispute.

MR. FITZGIBBON.—Please state the names now before the Convention.

THE SECRETARY.—We have Milwaukee, Cincinnati, Detroit, and St. Louis.

MR. KLAUBER.—I move that the nominations of places for the next meeting be now closed.

Seconded and adopted.

The balloting was now proceeded with.

While the ballots were being distributed, a member arose and asked how much was bid for the Convention by any one of the different cities, and favored disposing of the choice at auction. Whereupon the President announced that he was authorized to say that Milwaukee would give \$200—\$100 from Mr. G. Bode, and another \$100 from Mr. W. A. Armstrong. The cry of bribery was then started, and considerable confusion

followed, but the balloting was proceeded with, with the following result, as marked upon the blackboard by a member during its progress: Milwaukee, 141; Cincinnati, 115; Detroit, 43; St. Louis, 29.

As a majority was necessary for a choice, the balloting was declared without result by the Chair, and a second ballot moved for. On motion, Detroit and St. Louis were dropped from the contest amid a good deal of confusion and debate. Another ballot was proceeded with, with the following result: Milwaukee, 205; Cincinnati, 161.

A motion to make the vote unanimous was carried.

MR. CADWALLADER moved that Mr. Fitzgibbon cast the unanimous ballot of the Assembly for Milwaukee, which was agreed to, and the instructions were carried out by Mr. Fitzgibbon. The announcement was received with a great deal of applause and enthusiasm.

The election of officers for the ensuing year was now proceeded with. Mr. Smith declined to serve as a candidate for President, whereupon further nominations were made as follows: Mr. J. Traill Taylor, New York City; Mr. James Landy, Cincinnati; Mr. W. H. Sherman, Milwaukee; Mr. James H. Reed, Clinton, Iowa; Mr. J. E. Beebe, Chicago.

Of these, all except Mr. Landy and Mr. Beebe declined.

The Convention adjourned at 11.30, and the members proceeded in a body to the court-house, where they were grouped in the main stairway and the front entrances, and a photograph taken by Mr. J. F. Edgeworth, of Chicago, who makes a specialty of landscape work. Two views were taken on a 11 by 14 Cramer & Norden plate, with a No. 5 Euryscope lens, $\frac{1}{2}$ inch stop. The exposures were 2 and $2\frac{1}{2}$ seconds respectively. Mr. John Carbutt, photographer, also obtained instantaneous views with a smaller Euryscope on a 5 by 8 inch plate. Dr. Garrison, of Chicago, obtained views on a 4 by 5 inch plate with a Darlot lens in 2 and 5 seconds respectively. Mr. Gordon, of Indianapolis, obtained a fine 14 by 17 inch plate view, and had trial prints from it the same afternoon.

THURSDAY AFTERNOON.

THE PRESIDENT.—The Convention will please come to order.

THE SECRETARY.—The first thing is the amendment offered to the Constitution this morning. It has been placed on file, and the President wishes me to read it to you. It is as follows: Art. VIII. Election and place of meeting. The election shall be conducted by ballot unless otherwise ordered. The place receiving the highest number of votes shall be declared selected.

MR. ARMSTRONG.—Gentlemen, I would like to say a word in reference to matters here before we proceed further. This Convention is likely to adjourn under existing circumstances without a short-hand report of the proceedings, and there will be nothing to govern any future meetings. We have no record. Now it lays with you as to what to do about it. A report can be purchased. There are two reporters here, but none in the employ of the Association. It is absolutely necessary to have a record. I move that the Executive Committee be empowered to purchase a report.

A MEMBER.—Will you state the expense.

MR. ARMSTRONG.—The reporter says it will be in the neighborhood of \$100.

A MEMBER.—I would like to ask what provision has been made heretofore?

MR. ARMSTRONG.—There has not been any record kept by the Secretary, and the Secretary has not kept any reports here at this meeting—all the Secretary has done is to act as the local Secretary, and as such his duties have been so arduous that he could not attend to both. Consequently there has been no provision for making a report, and there was no reporter provided for the Association.

A MEMBER.—A report need not necessarily embody any more than the minutes; is not that the case?

MR. ARMSTRONG.—You can act upon that as you please, but there should be a full report of the proceedings. The journals will cut up this matter and curtail it to suit themselves, and you will not have a full report of the proceedings.

MR. TAYLOR.—I may say as to the *Photographic Times*, that we shall have a thorough

record. It will not have any of the wrangle, of course; you can easily understand that.

MR. HALL.—Allow me to ask, for what sum a short-hand reporter would furnish the simple official business without regard to the papers and speeches.

MR. WILSON.—The *Philadelphia Photographer* has employed a reporter on its own account, and my intention is to publish the best and fullest report of any journal, with speeches revised by their authors. An accurate and careful report. At the same time it seems to me that it is a very empty way of handling things for this Association to keep no record of its proceedings. If any one had pressed the reading of the minutes of our first meeting, our President would have been obliged to humble himself by saying that we were an Association without a record. Who ever heard of such a thing? One of the most useful things that money could be spent for is to preserve a copy of the proceedings. Last year it was tried and the reporter failed, simply because he was a good-for-nothing reporter. I understood that nothing would be done by the Association this year, so I prepared myself to give you all that is worth giving, and *you shall have it in the Philadelphia Photographer*.

MR. ARMSTRONG.—Gentlemen, the Association should be able to pay for a reporter without asking any consideration from any one.

THE PRESIDENT.—I will state for the information of the members of the Association, that the Executive Committee provided an assistant secretary yesterday afternoon, and the gentleman is attending to his duty.

A MEMBER.—That's all we want.

THE PRESIDENT.—I will also state that last year the officers of the Photographers' Association of America engaged a phonographer, and I believe the gentleman received \$40. They had also engaged him to furnish three manuscript transcripts. If I understand right, they would have cost in the neighborhood of \$160 or \$180. The Secretary, Mr. Douglass, being informed, immediately checked the perfecting of the three transcripts. The matter had gone on so far that, I believe, one of the transcripts was

finished for two days and a little more—a little over two days of the proceedings of the meeting—and the price paid for that transcript was \$60. Here is the document. It is not in accordance with the other reports. It has never been read by any one but myself, and it has never been called for, and it is not worth the paper on which it is written. The Executive Committee, acting for the interest of the Association and all concerned, corresponded with the different journals in regard to reporting the proceedings. One of the Executive Committee thought, as the Association had sufficient funds to carry on the Convention and was greatly under obligations to the journals, he could not see why they should pay anything towards procuring the report of the proceedings of the meeting. He thought that the Association should furnish the editors of the different journals with a full and complete report at the expense of the Association. The other journals were at that time not consulted, but later on the Secretary received a communication that, I believe, Dr. Morgan offered to furnish to the Association and to the four different journals, five copies of the report at \$45 each. I believe that Mr. Wilson and the Scovill Manufacturing Company accepted, and I was asked to do something in the matter for the Association. Knowing the former proceedings at the meetings of the Association, I fully knew that neither the editor of the *Bulletin* nor the editor of the *Practical Photographer* would ever go into this compact, and before the matter got into shape, I believe, our executive officer, Mr. Armstrong, corresponded again with the different journals. The answer was that Mr. Wilson and the Scovill Manufacturing Company had already secured at their own expense a reporter, and would report the proceedings of the meeting. The editor of the *Bulletin* said he would take matters into consideration, and the editor of the *Practical Photographer* thought that this Association should furnish a report for nothing. Now, as this Association is not controlled by any party or any individual, I took upon myself the responsibility of pressing upon the Executive Committee that this Association show no favor to the

editors of the different journals, and that they should be informed that they would be required, if they wished the proceedings of this meeting, to take a verbatim report of the speeches and papers read at their own expense. It is my honest belief, and I believe the belief of the members of this Convention, that if the editors of the photographic press have not interest and “get up” enough in them to furnish their readers a report of this Convention, they had better leave it out and retire for some other party. Now, gentlemen, you can see the undercurrent that runs in deep water. I have nothing more to say on the subject.

MR. WILSON.—Mr. President, I want to say one or two more words, though I did not expect to say anything. But I want to say to the Association just what I said to you yesterday, that representatives and reporters of the *Philadelphia Photographer* and the *Photographic Times* are here perfectly independent of you, or your Committee, or anybody that had anything to do with your proceedings. It was stated to you that *we had* “get up” enough to do our work when we arrived, *at our own expense*, and we are the only journals who have. This proposition from Mr. Armstrong is not to help the Scovill Manufacturing Company or Edward L. Wilson one dollar; it is for the benefit of the Association, whose President you are. As far as I am concerned, and I know the Scovill Manufacturing Company feel the same way, you can do just as you like—employ Dr. Morgan and give him the \$100 or not. He is bound to give *us* a full report, according to his contract. It has cost us nearly \$300 to bring him here and to get that report, whereas it could have been done at the rate of \$45 a piece, if you had done what your Committee proposed to do. But *you* did not have the “get up” to say that you would do it.

THE PRESIDENT.—Probably Mr. Wilson thinks that I am working from mercenary motives, but that is not the case.

MR. WILSON.—No, sir; not at all. There is no personal feeling in the whole matter. I only wish to be set right. Had we not brought our own reporter here there would be no record of this Convention.

MR. SCHLEIER.—I desire to say a few words, Mr. President. I have no personalities in this matter at all. My whole object is the good of the Association. I have always aimed at that. I am perfectly satisfied with the way in which we have proceeded; but is it really possible, Mr. President, that we are now in the third session and on the third day of the meeting of the Convention of this Association, without having a record of what we have done?

THE PRESIDENT.—That is the fact.

MR. SCHLEIER.—Is it really possible, that you cannot show me even the smallest memorandum of what has been said in this body, although we have a secretary to put down the report? Have you ever seen a debating society or any convention, however small, without a report of their meeting? That's the first thing that they do. After they have elected a chairman, then they elect one or two secretaries. Here we are to-day without having the least record of our transactions, and we have to depend upon simply what the journals give us. Now, Mr. President, if you want to carry on a society like this, you want to do it in a business-like manner just as you carry on your own business, with your own books, so that you can look hereafter and see what has happened. I have no personalities, and I don't care if I am unpopular; I do not work for myself, *but this Association shall live* and we must *work* for it. We want this Association to be carried on in the proper way and the way it ought to be. Do not let our committees be treated as was the one on international organization. Mr. Carvalho has done his work well for the Association, and he ought to at least be recognized. Nay, more, there are other and different mistakes that have been made Mr. President, but I tell you this must stop. If we cannot carry on and perpetuate an association like this in a proper manner, with all respect, allow me to tell you, we should let it die. I want to be set right in this matter; when you were elected President in New York, you remember, I did not vote for you; I came here to this place really, I will acknowledge, almost to a funeral, I thought. I had no faith that we were going to make a success; but when

I came here and saw the display, and saw the work that the President had done, in connection with all his faults, I have taken the hand of the President here, as he can witness, and I have congratulated him, and I felt like hugging him, knowing that he had sustained the Association, and right now I thank him for myself. I thank you, Mr. President, for the success of the whole Association; you have done nobly, with all your assistance, and you have done well, but one thing is lacking: we want system. A system must come into this Association if you want to perpetuate it. Let us look to this; let us leave personalities out; Mr. President, I have no ill-feeling to you; I want you to understand I am to-day more your friend than I ever was in my life; I have no axe to grind, whatever; I am simply working for the sake of the Association. (Great applause.)

MR. HALL.—Gentlemen, when the present incumbent of the chair of this Association was elected, I was not a member. Had he not been elected I might not have been a member now. He is one of us. That is to say, he is with us in all our movements for the progress of art and science in our profession in Chicago. And I knew him well enough to know that he would spare no efforts to do the very best he could, and that is the best you can expect of any man. We all fail in something, but any man that has the love that has been just expressed for a man in that position, will not do anything or say anything to confuse him or work against him. If he does, I say that he is not friendly to him. Now they seem to lay all this trouble about the minutes upon the presiding officer. The duties of each officer are definitely defined in your constitution and by-laws here, which you can see. We have a Secretary who was elected at New York by the members present there, the same as our President was elected, I suppose. I was not there at the election; his duties are defined, he is the man that is to keep the record.

Further debate followed between Messrs. Hall, Schleier, and the President, on points of order, when Mr. Schleier said, Mr. President, I rise to a point of order. When you want to address the Convention, you will

please call the Vice-president to the chair and give him the gavel.

THE PRESIDENT.—Mr. Schleier will please take the chair.

MR. SCHLEIER.—I will not do it.

A MEMBER.—Go on, we shall be glad to hear from you in your own defense.

THE PRESIDENT.—Now, gentlemen, Mr. Cadwallader had imposed upon him at New York the duties of Local Secretary and of Secretary also. The constitution mentioned not a word about local secretary. It simply says secretary. The Secretary has done well. While the Convention gives him no credit, I give him credit for what he has done. The other officials of the Association have also done nobly, and I, for one, give them my individual thanks. If it had not been for us five this Convention would probably have been a dead corpse. I took command of the forces without any ammunition. Not a dollar in the treasury. The Secretary came to me for the wherewith to buy stationery and postage stamps; I told him to get it upon his own credit, and if he could not, to send the bills to me. We labored hard. The Treasurer of this Association spent money and time to get subscriptions from our stock men, manufacturers, and dealers. They all contributed, and we soon had a full treasury, and the result is in the other hall across the street. (Applause.) Our Secretary has done the hard work of a local secretary nobly, and there is an old saying that it will not do to ride a good horse to death. I anticipated that the gentleman would fulfil his duties. I have no authority to put a dog chain around his neck and chain him to the table. You can take a horse to water, but you cannot make him drink. Finding that the Secretary had too much to do, and had performed too much labor, which has unfitted him and unqualified him for the duties of secretary, I applied to the Executive Committee to furnish me with a secretary *pro tem.*, or an assistant. This the Executive Committee has kindly done, and he has been here from yesterday noon, and from that time the proceedings of this meeting are recorded in type.

MR. HALL.—There has been a good deal of valuable time lost in this discussion. It seems to me unnecessary, because the Ex-

ecutive Committee hold the power to do what they choose. They have the power to buy a copy of the proceedings if necessary.

MR. KLAUBER.—I move that we proceed to the election of officers.

THE PRESIDENT.—It has been moved and seconded that we now proceed to the election of officers.

MR. ARMSTRONG.—I move the previous question.

At this point there was a great deal of confusion in the hall.

MR. KLAUBER.—I would like to say that I hope the members will bear with me in what I have said. I acknowledge it has been a little more than ought to have been said; but it has been done for the good of the Association. When the nominations were made I was informed that Mr. Landy declined; I can now emphatically say that Mr. Landy said in the presence of myself and Mr. Schleier, and one or two other members of the Association, that if elected, he would put his broad shoulder to the wheel and do all in his power to make this Association a success.

The Secretary then read the names of the candidates for the Presidency, as follows: Messrs. Beebe, Landy, and Sherman.

THE PRESIDENT.—Mr. Sherman has withdrawn his name. The first ballot will be an informal one.

MR. KLAUBER.—Why the ballot, where we have two candidates, should be an informal one, I cannot understand.

A MEMBER.—I move that the candidate receiving the largest number of votes shall be declared President elect.

The motion was seconded by several.

THE PRESIDENT.—The gentlemen will come to order, so that the balloting can be proceeded with.

The tellers having collected the ballots, made the following announcement: Total number of votes cast, 258; of which Mr. Landy received 120, and Mr. Beebe 138. Mr. Beebe was therefore declared elected.

THE PRESIDENT.—Gentlemen, you have heard the announcement; Mr. Beebe is declared elected President of this Association for the coming year.

MR. SCHLEIER.—Mr. President: I wish to make an announcement. I desire, having

voted for Mr. Landy, to make this vote for Mr. Beebe unanimous; then Mr. Beebe can address us with good grace.

THE PRESIDENT.—It is moved and seconded that the vote be made unanimous; all in favor will signify by rising.

Passed unanimously by a rising vote amid calls for Mr. Beebe.

MR. BEEBE.—Mr. President: You know how I feel, and how embarrassing the position is. I feel so deeply the honor you have conferred upon a young man in photography, that it nearly takes away my breath. The gentleman with whom I have been in competition is one whom I have admired very much, and I am exceedingly sorry you have not elected him. I have had some experience during the past year of the responsibilities and duties you have enjoined upon me, and I assure you that, having so many friends as I have in the profession, I will do all I can to uplift the standard of the Photographers' Association of America upon the very ramparts of progress. *Help* me, gentlemen, and we will make this Association successful. (Applause.) You have in me a mis-called President. Mr. Smith, I know, has done what I hardly expected, in getting up this Convention, and I tried to encourage him; but when I did it I hardly expected to be struck by the Presidential lightning. We had hard work; but we have \$2,500 more in the treasury than we had when we started, and we have had a good Convention this time, and I rely upon every one of you to help me in 1883, and to the close of the Convention of 1882.

THE PRESIDENT.—The next business will be the election of Vice-Presidents. The Secretary will please announce the names.

For Vice-Presidents: J. F. Singhi, Maine; W. G. C. Kimball, New Hampshire; L. A. Atwood, Vermont; G. M. Carlisle, Rhode Island; John Oldson, Connecticut; A. H. Atwood, New York; S. S. Richards, New Jersey; John Carbutt, Pennsylvania; M. Wolfe, Ohio; D. R. Clark, Indiana; Charles Aiken, Illinois; M. V. Owens, Michigan; C. Chadbourne, Wisconsin; F. E. Loomis, Minnesota; E. L. Eaton, Nebraska; D. H. Cross, Iowa; H. M. D. Ford, Kansas; J. A. Todd, Cal-

ifornia; N. H. Busey, Maryland; A. H. Plecker, Virginia; J. A. H. Parsons, West Virginia; J. S. McAllister, North Carolina; W. A. Reckling, South Carolina; C. W. Motes, Georgia; G. W. Swift, Florida; Henry E. Wallace, Alabama; A. L. Blank, Mississippi; James Mullen, Kentucky; W. J. McCormac, Tennessee; W. W. Washburne, Louisiana; Gustave Cramer, Missouri; J. O. Bagwell, Arkansas; P. H. Rose, Texas; W. H. Jackson, Colorado; S. J. Dixon, Canada.

The motion to elect the Vice-Presidents named was agreed to, and a ballot cast for those above named.

MR. FITZGIBBON.—I offer the name of William A. Armstrong, of Milwaukee, as Secretary, and move that the nominations be now closed and balloting proceeded with.

THE SECRETARY.—The names of the candidates to be balloted for are as follows: W. H. Sherman, Milwaukee; William A. Armstrong, Milwaukee.

THE PRESIDENT.—We will now proceed to ballot. Mr. Edgeworth wishes me to announce that the group taken this morning is a thorough success; Mr. Carbutt also announces that three out of the four taken by him were successful.

MR. EDGEWORTH.—Mr. President, and gentlemen, I have developed the plate, and you can get the picture by sending \$1 to No. 75 East Madison Street, Chicago. The size will be 11 by 14.

MR. L. DE PLANQUE (Corpus Christi, Texas).—Mr. President, and gentlemen of the Convention, I rise during the collection of the tickets to explain a somewhat simple matter designed for the advertisement of photography, and for the advancement of the mutual interests that we take in each other personally. One afternoon I took a picture of my own with a duplicating camera; I made several plates, and made some of the small size; I then had some visiting cards printed with my address on the other half for exchange with photographers here. I am going home now, and I have collected 125 cards of the different members of the Association with whom I exchanged these cards of mine, which were gotten up in this style. It is a small card, in the corner of which you see my picture; it don't amount

to anything, but when I go home and look over this collection I will recollect the name, and when I see these names mentioned in our journal in the future issues, I shall be able to recognize or recollect the face of each one of these men who have so kindly given me their cards. I think that this is a good idea for the members to act upon hereafter. I hope they will prepare themselves for the next annual meeting with similar cards. I am confident that if I had been able to exchange, I should have received in this manner 300 more cards in return for my own, and if I had, I gladly would have placed them in a very elaborate frame at home as a memento of this really glorious assembly of photographers of the United States which I have been so fortunate as to meet in Indianapolis. \$200 would not buy such a picture from me; and I am confident that I am expressing the opinion of other members of the Convention; I wish that every one would feel as I do about it; I would like to hear from you next year in a similar manner.

THE PRESIDENT.—I think the idea of our brother from Texas touches the right spot. It is a mighty good thing. It is something that will not cost us much to put into practice.

MR. WILSON.—I suggest that we could save time by passing a few necessary motions while balloting is going on. I have a personal letter from our first President and old friend Mr. Ryder, expressing regret that he could not be here on account of important business, and then closing his letter by saying, "through you I make my bow and give my good wishes to the Convention." (Applause.)

I have prepared a paper to read some time, which I have called "Drops from my Developer." I see very plainly that there will not be time for the Association to hear it read, but if accepted *as read*, I will insert it in the proper place in the minutes.

The question being on the motion to receive Mr. Wilson's paper, it was agreed to.

DROPS FROM MY DEVELOPER.

I used to think that the development of the wet plate was the most beautiful operation in physics or chemistry. There is something so

very like magic in the operation of bringing forth the image from apparent nothingness. But since I began to develop emulsion plates I am more charmed than ever, and never grow weary of watching the application of the chemicals and seeing their effect upon the plate containing the latent image. I have had my hands in a great deal of it lately, and desiring to contribute a few thoughts for the information of the gentlemen gathered here, I will proceed to give a few drops from my development experience. Having a goodly quantity of plates to develop within the past few weeks, which had been exposed under peculiar circumstances, and a good many months ago, I was unusually anxious to determine as to which was the best method to adopt. Careful experiments were made with both the pyrogallic and the ferrous oxalate developers, and I finally determined upon the last as the most desirable for use with the brands of plates which I had exposed. I use ice water, but not applied directly to the plates. A tank of this important element stands at my right, from which I can draw a supply whenever I desire it. Before me is a row of larger dishes, which I fill with ice-water, and in them I place the smaller dishes containing the plates and developer, thus keeping my developer sufficiently cool for all intents and purposes. I have not been annoyed therefore with frilling. The developer which I use is substantially that recommended by Mr. Carbutt: three solutions are prepared as follows:

No. 1.—Oxalate Solution.

Water,	. . . . .	64 ounces.
Neutral Oxalate of Potash,	. . . . .	16 "
Bromide of Potassium,	. . . . .	60 grains.

Acidified with just sufficient citric acid to slightly turn blue litmus paper red.

No. 2.—Iron Solution—100 grains to the ounce.

Water,	. . . . .	28 ounces.
Sulphate of Iron (pure),	. . . . .	8 "
Sulphuric Acid,	. . . . .	35 drops.

Add sufficient water to make a bulk of 35 ounces.

No. 3.—Bromide Solution.

Water,	. . . . .	4 ounces.
Bromide of Potassium,	. . . . .	3 drachms.

To make the developer, take of No. 1 solution four to five ounces; No. 2 solution one to one and a half ounces; No. 3, I call "the boy," and keep it handy in a small bottle on a little shelf in front for immediate use when required. This developer I use as a rule, but modify it according to circumstances; of course, I use a record book, and know always the exposure of a plate

before I develop it, as well as all the circumstances as to lighting the subject, etc.; but there is one thing that I can never know, and that is the nature of the plate which I have exposed. Experience has taught me that a dozen emulsion plates may often be like a dozen cabinet pictures often are: though made by the same photographers, every one is different in quality or tone; therefore, I am required to be constantly on the alert when developing. I begin by using a weak developer, and strengthening rapidly, if occasion requires. In other words, my developing solutions of various strengths, are my *brushes*, and I use them very much as I think a painter would his brush in the application of his color. I never like to be spoken to when I am developing plates, or to have anything to divert my attention from the work before me. I watch anxiously the first appearance of the image, and then soon determine whether to strengthen the developer or call "the boy" into service, which last is almost always the case if there is an over-exposure. I do not use a dipping bath for my developer, preferring to depend upon the use of my hands and to have the plate entirely under my control and my eye during the action of the development. By such precaution I do not claim to always get exactly the effects I want, for I am sometimes disappointed in the quality of the plate, and after-manipulation must be resorted to; it is my desire always, if possible, to get the proper printing strength from the first development. I use a little hyposulphite of soda in the developer sometimes. Of course, I use the alum bath, but not mixed with the hyposulphite of soda. I found when the two solutions were mixed together that a powdery substance would form upon the plate after fixing, which would need to be brushed off. This was troublesome, and I discontinued the practice of using the two together. I also found that some plates were apt to lose strength in the hyposulphite solution. In order to prevent this, a few crystals of iron are added to the fixing solution. I generally lie the crystals at one end of the dish and allow them there gradually to dissolve and the iron to diffuse itself in the hypo; I wash most thoroughly, until, after several applications of the water running over the plate to the tongue, I am sure there is no taste of soda or alum coming therefrom. I dry my plates slowly in the negative rack.

There is another method which I am learning to work, which is about as follows: I have six dishes before me, which I shall designate as A, B, C, D, E, and F, arranged in three rows of two each, one above the other. The lower mid-

dle one is A, the upper middle one is B, the upper right-hand one is C, and lower right-hand one is D, left upper one is E, and the left lower is F.

A contains 4 ounces of oxalate and 1 drachm of iron; B contains 4 ounces of oxalate and $\frac{1}{2}$ drachm of iron; C contains 4 ounces of oxalate and 1 drachm of iron; D contains 4 ounces of oxalate and $\frac{1}{2}$ drachm of iron; E contains 4 ounces of oxalate, 1 drachm of iron, and 4 drachms of bromide of potassium; F contains 4 ounces of oxalate, 1 drachm of iron, and 2 drachms of bromide of potassium.

Now you begin to see the trick. I have here six different strengths of developers. I begin with No. A, and if I find the plate developing too slowly, I at once place it in No. D; if too rapidly in No. B; or, if I need a stronger developer or restrainer, I place it, according to circumstances, in E or F.

This, perhaps, is a more useful method than the first one I described, because it enables you to *quickly* withdraw a plate if developing too rapidly, or as quickly to hasten the work which is too slow.

In development there are many little dodges with the hand too, which could be practised. When I find one part of the plate (which is often the case) developing more strongly than another part of it, I tip the dish, so as to give the weak side or end the best chance and to hold up on the other, is very efficacious. If I find one edge, or one corner, varying in strength from that of the others, in the same manner, by manipulating the developing dish with my hand, I arrest or correct the evil; so also, in redevelopment, strengthening, or intensifying. If I find one edge or one end to be weaker than the other, I tip my dish at once, and bring the solution to bear upon the weaker parts. In this way, otherwise good plates, are made as though they were of equal quality all over. As I said before, watching the developer, and working out the results is very much like a painter handling his brushes and his colors.

I profess to know very little about this new process as yet, and am willing to confess myself a "novice." I learn something every day of my life. It took me some little time to understand how to expose my plates, and I found it was always safe to give a sufficient exposure, as it is easier to get good results from over-exposed emulsion plates than it is from those under-exposed, by after-manipulation. The development is the most difficult thing. One should be constantly on the look-out. I was told by some of my co-workers in *Paris* that they developed a large

quantity of plates at once without much regard to the grade of the exposures. This is easier to do, as we know, in portrait practice than it is in outdoor practice where the light is more variable, and where the subjects are more widely different—where the one is governed more largely by circumstances over which there is no control. The methods I give are especially for outdoor work. I trust they may be useful to somebody who has less experience than I, and who is anxious to have more.

EDWARD L. WILSON.

MR. BEEBE.—I also have prepared a paper, called "Limitations of Photography," but as long as there is not going to be any time, I move that it be received and included in the reports. This will take up considerably less time than the reading of it.

Agreed to.

THE LIMITATIONS OF PHOTOGRAPHY.

Did you ever think, brother photographers, in the hurry and excitement of money making, that in this beautiful art of our's there are many things well worth thinking about that are of themselves quiet and restful? That the philosophy of the art-science contained within its range many problems that in nowise touched the vexed questions of prices, Sunday work, unwise competitions, troublesome customers, and the like? If you have thought this matter over, it will be helpful to know that others are awake to the fact, and if you have not, it will not be unprofitable to reason awhile together, and see if we cannot find food for thought outside of formula and technicalities.

Have any of you ever read that splendid work by England's first art writer, Philip Gilbert Hamerton, called the *Graphic Arts*? If you have not, get it and study it. In this work, he says of Photography, "It is supposed by many that since photography gives very minute detail, and is in some sort the fixed reflection of nature in a mirror, that any one who desires a true record can get it much better by making use of a photographic apparatus than by the careful study with a pencil. This is one of those cases in which a really well-founded opinion cannot possibly be a simple opinion easily transmitted to those who have not studied the subject.

"Photography does in some respects give more delicate truth than any draughtsman can, but from its incapacity for selection, there are many truths which it cannot state in drawing, and it often happens that, even if the photograph could give them separately, it could not give them together.

"Again, notwithstanding all the really wonderful ingenuity which has been employed in making the photographic apparatus portable and convenient; it is still far from being as ready and handy as a pocket sketch-book. But there is one fatal objection to photography in comparison with drawing, an objection that far outweighs all others, and that is, the necessity for an actual existing model.

"You cannot photograph an intention, whilst you can draw an intention, even in the minutest details, as we constantly see by the drawings made by architects of buildings not yet in existence. This settles the question in favor of drawing, because all constructors require to be able to represent ideas and conceptions, which have not yet become realities; even in the representation of realities, photography is less explicit than a good drawing by a person who thoroughly understands his business."

The photographer then is not to be compared with the painter, who generally attempts to render something of the mystery and effect of nature. This then is the idea of a careful thinker, a lover of all the arts and art-sciences, as to one of the limitations of photography, and I think that I can safely say, that in all the range of art literature you will find no truer, fairer statement than this. Photography is the helpful assistant, the patient fact collector for the higher arts of painting and illustration. Let her rest content with these honors, and waste no time in reaching for laurels that she can never attain.

Let us analyze a little further and try and get a few more of the weak spots in our defences in sight before we go into the much easier strain of self-congratulation.

Our lenses are eyes of brass and glass, but unfortunately they have not behind them a powerful brain; our plates will accept one set of facts at a time, but no more; when the slide is pushed in, no beating heart or busy thoughts are placing the vanished image among the stores of memory. Photography fails woefully when she attempts to depict any of the higher or holier emotions; so guard yourself carefully, ye modern geniuses, who attempt the copying of great paintings, or, worse yet, who attempt arrangements that touch the bounds of the tragic or soulful; ridicule is your just reward.

Realize well the fact, my friends, that no matter how magnificent your chemical effects, no matter how perfect your workmanship, you are hedged and bounded in the range of subjects you can depict with your cameras; you are limited in the class of expressions you can attempt with safety; you and subjects whose effect is de-

pendent on color are without affinity, your chemicals can bear but a certain strain; your lenses cover but a limited space at one time; your professional life has its boundaries, and you waste your energies in attempting heights your wings were never made to reach. A skilful artilleryman will not use his ammunition in firing at an object beyond range of his cannon, and a skilful workman will profit by his example; a thoughtful photographer will carefully study his resources, will dull his faculties in certain directions, will use his tools with cool judgment, will polish, refine, and beautify his work within certain limits; will, to put it technically, not make 14x17 heads with a greater size tube. Many of my hearers must take to heart this lesson; their art knowledge is limited, their studios are small, their opportunities for culture and training are of a meagre character: if they climb, it must be but slowly and painfully; they must pocket their pride, not fret their lives out over what they would like to do, but use every means to do perfectly what they have to do. See what a field opens before you, my dissatisfied friend; that you are dissatisfied, is a sure sign of growth, that you are hungry for formula, ravenous for information, anxious to meet this man and that man whose work you admire, points straight to the fact that you are improving, and will improve in your work perhaps, not, however, in your prices. A year ago, I led my hobby before you, and I will once more ride him across the stage. Art study is not limited. Culture will end only when you yourself desire it. A sturdy honest desire to improve will take the form of studios, perusal of art books, a subscription to art journals, of humble loving study of the work of the master-painters and photographers, of drawing, of an endeavor to understand the composition, arrangement, and light and shade. You forget, most all of you, that your study of chemicals and the management of your light and instruments are but the means by which the great end is to be obtained, namely, beautiful artistic work. Now, for one word of encouragement and I am done. You may think, as I myself have done, of what benefit is all this, if the worst of all limitations continually surrounds us. What satisfaction in beautiful artistic work, of expensive studies, of loving devotion, if cabinets are to be made for \$2 a dozen? Let me give you the answer; it is the only one—the love of a true workman for his work; this has helped many of us over the roughest places, and without it, the journey of life would be well-nigh intolerable; courage therefore! life is short and art is long; improve your work for its own

sake, and the result will be satisfaction to your souls without limit.

MR. WILSON.—I move that the chair appoint a committee of three to prepare a clause for the by-laws relative to the publications of the proceedings of this body hereafter, to report at the first meeting next year. The committee to be appointed by the chair.

THE PRESIDENT.—I appoint as that committee Messrs. E. L. Wilson, K. Schleier, and E. Klauber.

MR. FITZGIBBON.—I move that the office of local secretary be added to the officers of this Association, to be acted upon in the same manner in 1883. I think that this is an officer we much need. There is a great deal of confusion about the secretary as to what he has to do, and it has been entirely too much. We really need a local secretary. If this amendment is passed, the office will be added to the constitutional list at the first meeting in 1883, and I move that the same committee that has been just appointed take this matter into consideration, if they think it feasible to report or not.

Mr. Fitzgibbon's motion was seconded and adopted.

A MEMBER (from Arkansas).—I hope, sir, the committee will also be instructed to find out what, if any, are the duties of the vice-presidents. At present they only stand one chance in thirty-four of being elected President. If they have any duties to perform, I would like to have them defined. I make a motion to that effect.

This motion was seconded by several.

THE PRESIDENT.—I think that motion is out of order. The chair so rules.

The tellers reported that they had attended to their duty, and that 166 votes had been cast for secretary, of which Mr. Sherman had received 92 and Mr. Armstrong 74, so Mr. Sherman was declared elected secretary for 1883.

THE PRESIDENT.—You have heard the announcement of the tellers: Mr. Sherman is declared elected Secretary of this Association for 1883. We shall be glad to hear from him.

Mr. SHERMAN.—Gentlemen, I am very

grateful for the compliment which you have conferred upon me in electing me Secretary of the Association for the coming year, and I have only to say that I hope I shall be able to discharge my duties in a faithful manner. We shall endeavor to give you a hearty welcome to the city of Milwaukee next summer, and I only hope that the Convention may be as successful as it has been here in Indianapolis. If so, we shall be fully satisfied. I am well aware that the honors of the office to which you have elected me and to which you have elected the coming President, will be fully earned by the labors which will devolve upon us, but I hope we shall discharge them in an acceptable manner. (Applause.)

THE PRESIDENT.—The next business will be balloting for a treasurer. James H. Reed has been nominated by the committee. Are there any other nominations?

A MEMBER.—I move that the Secretary be instructed to cast the unanimous vote of the Association for Mr. James H. Reed, of Clinton, Iowa, as Treasurer.

Adopted, and the ballot cast accordingly.

MR. REED.—I never was known to make a speech, but I will now. I hope that the treasury will be full and running over. If you see that the cash is handed in by January 1st, as the Constitution requires, there will be no trouble about the rest of it.

THE PRESIDENT.—Gentlemen, we will now proceed to the election of the Executive Committee, and the Secretary will report the names.

THE SECRETARY (reading).—J. F. Ryder, Cleveland, Ohio; A. E. Dumble, Rochester, N. Y.

A MEMBER.—I move that the Secretary be instructed to cast the unanimous vote of the Association for the Executive Committee.

MR. A. E. DUMBLE.—It will be impossible for me to serve on that committee the coming year; I should like to do so if I could be of any use to the Association. It is possible that I shall be away next summer. I shall have to decline.

A MEMBER.—I move that the name of W. A. Armstrong be substituted.

Adopted.

THE PRESIDENT.—The Secretary will cast the ballot for the gentlemen named.

THE SECRETARY.—I have the pleasure to announce that Messrs. J. F. Ryder and W. A. Armstrong have received the unanimous vote of the Association as members of the Executive Committee.

The following Committee on *Progress of Photography* was then elected, as follows: Messrs. Edward L. Wilson, J. H. Fitzgibbon, J. Traill Taylor, T. C. Roche, and A. Hall.

THE PRESIDENT.—Gentlemen, that ends the election.

A. E. DUMBLE.—Mr. President and gentlemen, I wish to move a resolution. We have had a Convention, Mr. President, and you may thank yourself for it. You have come here hundreds of miles, many of you, and to a great extent you may thank your officers for it; but there were others who have aided very materially in making this Convention a success, and, in fact, without whose help, you could not have come here at all. The dealers and the manufacturers throughout the country have been extremely liberal, and they have given us money, and they have filled our treasury when we had no money in it. It is humiliating to think that the money received from photographers is not enough. However, if it had not been for Mr. Wilson's *PHILADELPHIA PHOTOGRAPHER*, Mr. Fitzgibbon's *Practical Photographer*, and the Scovill Manufacturing Company's *Photographic Times*, edited by Mr. Taylor, all of which gentlemen are present, our Convention would not have been the success that it is to-day. I desire to move, therefore, that the thanks of the Association be tendered to the manufacturers and the dealers, and to the editors of the various photographic journals, for the very generous manner in which they have aided in carrying this Convention to a successful issue. Adopted.

MR. CROSS.—I have the following to read:

Whereas, Several European parties having made important discoveries pertaining to our art-science, have freely published the same; therefore be it

Resolved, That this Association tender to them our heartiest thanks.

Adopted.

A MEMBER.—What will be done with the report of the International Committee?

THE PRESIDENT.—That can be called up at any time. It may be a year, or it may be two years hence; probably it will be a year.

MR. BEEBE.—If the gentlemen would like to hear a partial report from the Treasurer, it can be made now, and it will save time. Everything will be closed up in a week or two; but if they would like now an idea of the receipts and expenditures, I could give it to them, or a little memorandum of it. I suppose that in one or two weeks it will be all settled up, when I will endeavor to give you a full and detailed report of all our receipts and expenditures. I will give you now an idea of what we have done, in the shape of a semi-report. To put it very brief, our total receipts for the year, that is, including a few accounts of a few gentlemen who have not paid yet, but which I think will be paid, we have received, altogether, about \$2,500. As to the expenses, I cannot say as yet. We have a number of bills to settle for this entertainment, and for our Convention. I should judge that they would aggregate in the neighborhood of \$1,500 or \$1,800. If your Treasurer manages properly, I hope he will be able to turn over some five or six hundred dollars to start the new year. I will not say positively, for the Executive Committee have not gone through the bills as yet; but we will have *something* to start the new year anyhow.

Q. How many members have been present?

A. I cannot say exactly. Six hundred badges were procured, and you know that these badges have a tangible value. We have twenty-five left, so that five hundred and seventy-five have been disposed of. Some twenty-five or thirty of these though have been distributed to the local journals, prominent citizens, and small boys. Then, as you know, a great many members, I am sorry to say, could not come. Our membership ought to run up pretty close to a thousand. I do not like to make any wild guesses, but when I get back at the books I can soon find out the number of new members. We shall have a very handsome

membership to commence the new year with.

THE PRESIDENT.—I wish to state to this convention that, to my belief, during the past year, we have gained in new members in the neighborhood of four hundred.

MR. PORTER.—Will you be kind enough to inform us where we can get our certificates.

THE SECRETARY.—That will be attended to hereafter.

The President announced that there was once a project on foot to give a banquet, but that it had been abandoned on account of the expense.

At this point the convention adjourned to meet to-morrow at nine o'clock A.M., sharp.

FRIDAY MORNING—FOURTH DAY.

The President in the chair.

The calling of the roll of members was dispensed with, as was also the reading of the minutes.

MR. HALL.—If there are no other committees to report, Mr. President, I move that we take up from the table the report of the Committee on International Organization. Agreed to.

The report was read by the Secretary, when it was moved that the suggestions of the committee be complied with, that the committee receive further time, and that two more members be added thereto.

The motion having been stated by the President, Mr. Wilson stated that the *Chambre Syndicale*, whose headquarters are at Paris, already well organized, took the place of an international organization as far as possible, and that it would be better to co-operate with that body than to try to organize a similar one. After some further debate, on motion, the committee was discharged, and a new committee appointed to see how we could work in harmony with the *Chambre Syndicale* at Paris, and Messrs. Carvalho, Schleier, and E. L. Wilson, were appointed as that committee.

Mr. Fitzgibbon offered the following:

Resolved, That the President of this Association appoint a committee of three to report at our next annual Convention a possible plan to incorporate into the Consti-

tution of this Association a benefit clause, whereby the members of the same, or their families, shall receive benefits in case of disability, sickness, or death.

Seconded and agreed to.

MR. FITZGIBBON.—This resolution contemplates merely the appointment of a committee to take action and to report next year on the feasibility of doing this, and next year you can reject it if you like, or accept it if you think that the report is favorable and of benefit to the Association. To do so, there is no action needed now further than merely appointing a committee to take action in advance.

THE PRESIDENT.—I will appoint on that committee Messrs. J. H. Fitzgibbon, St. Louis, Mo.; D. A. Clifford, Vermont, and N. H. Beals, Troy, Pennsylvania. I believe that Mr. Hall has a paper that he wishes to bring before this Association, which he will now read.

MR. HALL.—Mr. President and gentlemen: When our worthy President urged upon me the work of preparing a paper for this occasion, I told him that I would do so, but that if he had plenty of material of that kind, in the way of papers and speeches, to not call upon me; but as he has called upon me, I will say this, that the photographers in the last few years have become quite proficient in the art of talking, as well as of picture-making, and that you for the last few days—the last three days—have had so much food of this kind placed before you for thought—that I think I see in the expression of the members before me that which speaks louder than words, “give me a rest!” (Applause.) And therefore I think the best course is to quietly hand the paper to the Association for its own purposes, if you choose to accept it, but not to weary your patience with reading it.

THE PRESIDENT.—Gentlemen, what is your pleasure?

On motion, the paper was received and placed among the papers of the Association.

INFLUENCES THAT AFFECT THE PROGRESS OF THE ART.

We are an organized body of men and women, who annually meet in convention, at great ex-

pense of time and money. Please allow me to ask for what purpose do we meet? The preamble annexed to our constitution says we are organized “for the advancement of the art of photography and for the elevation of the character of its professors, the establishment of a higher and more perfect system of conducting the business, the promotion of friendly intercourse and feeling, and unity of purpose in pursuing the direction that points to the greater success of photography as an art.” These are all very laudable purposes, and there is evidently room enough in these directions for the exercise of the best endeavors of the wisest of our members. I have no doubt these gatherings do tend to promote friendly intercourse, but I have never discovered anything that leads me to believe that they do anything toward establishing a higher and more perfect system of conducting the business or of advancing the art. I do not mean art in its broad sense, but in its abstract as conforming to the laws and rules governing the fine arts. Nor can I believe that they have done anything toward elevating the character of its professors in the minds and hearts of the best class of people.

It may surprise some of you who can remember as well as I can, when the discovery of photography was announced to the world, to hear me say that, in my opinion, as an art, it reached its highest point of perfection about ten years ago, and since then in many parts of this country, and in many countries, has been on the decline. I think some within the hearing of my voice will endorse my remarks when I say that about that time some of the noble men who had spent the best part of their lives in trying to perfect the art of photography, exhibited some as fine specimens of artistic work as have ever been seen, and all attempts to improve on the artistic merit of these pictures have been simply in introducing art; of others in the shape of scenic back-grounds and other accessories too numerous to mention. A doubtful experiment in the attempt to improve art in its true sense.

Some will ask why the art should decline almost in its infancy? There are several reasons. First. It is a law of nature, that those things of rapid growth are the soonest to decay; but the principal reason is the want of proper appreciation of an artistic picture, and the low estimate set on the value of the same by the larger class of citizens. We photographers, and our art in many sections, are looked upon very much as the painter and his art was in Rome in its early days. While painting and sculpture were revered among the Greeks as the first of

liberal pursuits, they were looked upon with indifference, if not with contempt, by the Romans. To show the low estimate placed upon the art at that time in Rome, I may mention the fact that Fabius, a man of illustrious family, who flourished about 300 years B. C., the first on record among Roman painters, was contemptuously treated. With his pencil he decorated the Temple of Salus on the Quirinal Mount, but this won him no laurels. The pursuit was considered a plebeian one. About 200 years after Fabius, Pæcuvius, who was a poet as well as a painter, made an effort to popularize the art. He painted the interior of the temple dedicated to Hercules. He infused into the works of his pencil some of the genius of his muse, but all the brilliancy of his coloring, and beauty and taste in composition, so far as the latter were then known, did not excite in his countrymen any feelings calculated to engender a taste for, or give encouragement to the art. Pliny says, notwithstanding this effort of Pæcuvius, it was not sufficient to induce respectable men to give themselves up to the study of painting. Thus the art was left to the care and use of either slaves or persons of inferior rank as far as Roman paintings were concerned. At the same time the Greeks guarded the art with such jealous care, that they had enacted a law excluding all persons not born of free parents from participating in the practice of either sculpture or painting. This proves to us that the healthy growth of the arts depends as much, and perhaps more on public sentiment than it does on the artists; for if public sentiment is right, talent is sure to develop itself.

The Jews, in consequence of their strict adherence to the letter of the command, "Thou shalt not make unto thyself any graven image," etc., would have nothing to do with pictures or statuary until their final subjugation and overthrow by the Romans, A. D. 71. It is said, when Pontius Pilate wished to introduce a legion of the Roman army into the Holy City, the Jews protested against it because their standards bore the painted image of Cesar. Suppose we glance over the history of painting, and see under what circumstances painting flourished, and under what it languished. It may aid us in our efforts to ward off the disastrous influences that seem to be gathering around our art in many places at the present time. The first picture we have any authentic account of was the "Battle of Magnete," in Lydia, which is said to have been executed by Bularchus at Rhodes, in Greece, about 700 years B. C. This picture was purchased of the artist for its weight in gold by Candaules, King of Lydia. Greece began about

that time to suffer severely from the combined effects of foreign wars and internal commotions, which caused the arts to be neglected until her foes were expelled from the country, peace and order restored, and liberty established, when the cultivation of the arts of war gave way to the improvement of the mind, in pursuit of peace.

The arts were called into requisition to rear and adorn monuments to conquerors and temples to the gods. Panæus, a famous painter, was employed to decorate some of these temples. One of his pictures was the representation of the "Battle of Marathon," in which were seen correct portraits of the generals who fought in that great contest, and it is said that the only reward that Miltiades received for his superior bravery, was having his portrait appear in this picture more conspicuous than that of the other officers. These pictures could hardly be called paintings, for the brush and pencil were not then known. They were produced by the use of the cestrum, yet they were so highly prized that simply placing his portrait in a prominent place in a work of art paid this brave general for his services.

My friends, how many pictures would it have taken to satisfy the claims of one of our brave generals who served in our late unpleasantness?

We will pass to the three great names, Apollodorus, Zeuxis, and Parrhasius, who rose to distinction in rapid succession. The first named may be considered the father of painting in Greece, in that improved style which raised it to its greatest perfection. He is credited with being the first to practice chiaroscuro, and undoubtedly was the first colorist of his age. An eminent writer, in speaking of these artist's works, which were produced 400 years B. C., says: "They exhibited all those tones of color, light, and shade, and perfect command of the pencil which constitute the successful painters of today." The fair fame of Parrhasius is tarnished by an atrocious act, Highseneca imputes to him. He says that, wishing to represent Prometheus in his agony, enchained to the rock, he put a slave to the most cruel torture, and finally, death, that he might have a living model. A similar act is imputed to Guido, an Italian painter. He had an order from the Pope to paint a crucifixion. He hired a poor man to be suspended in an easy manner upon a cross. But he found the model incomplete because no appearance of death was there, so he seized a rapier, stabbed the man in the side, and during his death struggle completed this portion of the picture. The Pope condemned the artist to death, but the Pope's great love for the art, with a little cunning on the part of the artist, saved him his life, and

gave him his liberty. To Parrhasius is given the credit of uniting the art of painting and the inspiration of the poet by the invention of allegorical painting. Thus the art of painting progressed, and why should it not under the patronage of those whose adoration for it allowed even the murderer to escape his just dues that the powers might possess a coveted picture. The highest tokens of regard, however, ever paid to the productions of an artist were at one time extended to Protogenes. It is related that when Demetrius Poliorcetes was besieging the city of Rhodes, and might easily have taken it by directing the assault on the side where Protogenes lived, yet forbore lest he should do injury to the great painter's works. When he finally gained the city, and the besieged requested him to spare the pictures of their great favorite, he replied: "I would sooner destroy the images of my forefathers than the productions of Protogenes." One of the last artists of eminence connected with the history of Grecian painting, was Aristides, of Thebes. He lived at a time when his country had reached the acme of its glory, and the arts were encouraged and patronized with an unbounded liberality which had the effect, as it always does, with ambitious men, to develop to the fullest extent their great talents.

Fuseli, in a critical comparison between one of Aristides' compositions and similar ones by modern artists, Raphael and Poussin, awarded the praise of excellence to the Theban artist. This great artist lived, too, at that period when Grecian art and political greatness had passed the meridian and had just commenced its journey towards its setting. Political changes, brought on by luxury and vice among the rulers and people of Athens, the holy wars that broke out about this time, and the work of destruction commenced by the Iconoclasts, combined to destroy the independence of Greece. Lossing, the historian, says, "with the destruction of the temples of the gods, and the political structure of Athenian greatness, was given the death blow to the fine arts, and under the ruins of which they were then buried, they still slumber, the silent yet impressive chroniclers of the glorious past."

I will not weary your patience longer with ancient art, but will pass on to the revival of the arts after that period known as the dark ages, which for nearly a thousand years was shrouded with every other art and science in that moral gloom which rested upon the world. During this time it was only occasionally that a beam of intelligence broke forth to give evidence that the empire of the mind was not wholly a desolation.

The arts were almost forgotten. Painting was only practised by a few, and in obscurity in giving rude decorations to religious structures, until the year 1300, when Cimabue practised it in public use, and to him is due the honorable title of father of modern painting. From his time on the fostering care and patronage of kings, princes, and the wealthy generally, the art made rapid progress. In about 300 years it was carried, in the hands of those men known as the old masters, to the very pinnacle of fame, to the highest state of perfection. Supposing you are all familiar with the career of these famous artists, I will only mention one or two brief circumstances to show what influences spurred these great minds on to the dizzy heights to which they carried the perfection of the art. One was spoken of as divine. Francis the First, of France, said that persons famous in the arts, partake of the immortality of princes, and are on a footing with them.

During the residence of Titian in Spain, he executed many splendid paintings, and so much beloved was he by Charles the Fifth that he gave him the key of the order of Santiago Brussels, and constituted him a Count Palatine of the Empire at Barcelona. In 1533, when these favors excited the jealousy of the nobles of Germany and Spain, they received no other answer from the emperor, than that they had many nobles but only one Titian. The artist who overheard the retort, made his obeisance to the monarch, and in so doing dropped his pencil on the floor. To the mortification of the nobles present, the Emperor took it up, and delivering it to him, said, "that to wait on Titian was a fit service for an emperor." Such was the honor and respect bestowed on artists in those days.

When the old masters passed from the stage of action, the art of painting began to wane, and artists, scarcely above mediocrity, sprung up and flourished. Among them was Vasari, who overwhelmed the palaces of the Medici and of the popes, the convents and churches of Italy with a deluge of mediocrity commended by rapidity and a shameless bravado of hand, just as many photographers are doing at the present time. He alone did more work than all the artists of Tuscany together. Thus was painting fast degenerating when, about the close of the sixteenth century, the Caracci Brothers founded at Bologna that famous eclectic school, which in a great measure arrested the retrograde movement of the art. And had they found successors equal in talents and industry, the art might have been saved from that degeneracy into which it subsequently fell. Does it not seem strange that

talent could not be found? Are we to suppose that it did not exist?

Prof. Torrey, in speaking of the decline in art, says there must be a corresponding decline in the public taste, and however decided may be the bent of this or that single individual, yet he cannot help being influenced more than he is aware of by the spirit of the times in which he lives. Lanzi gives us the true cause; he says: "it seems an ordinary law of Providence that individuals of consummate genius should be born and flourish at the same period, or at least, at short intervals from each other." In support of this, he points to the period of the highest state of tragedy, ancient and modern comedy, philosophy, Grecian eloquence, and the fine arts. This circumstance has puzzled many thinking men; but this author takes a philosophical view of it, and observes that these happy periods never occur without the circumstance of a number of princes and influential individuals rivalling each other in the encouragement of works of taste, and amidst these there always arise persons of commanding genius. To honor is to cherish the arts. Glory stimulates the arts; but they languish among all nations which disdain them. These words are as true to-day as they were when Cicero uttered them more than nineteen hundred years ago.

We have seen this is what carried the art of painting to its highest state of perfection, and it is what photographers have got to have to spur them on to that state of perfection to which this art is capable of being carried. Glory to stimulate us, honor that our productions may be cherished, liberal patronage to support us in our efforts. I don't mean such patronage as the father of English landscape painting, Sir James Thornhill, received from the State for decorating Greenwich Hall and St. Paul's Cathedral, two pounds sterling per square yard. The historian contemptuously remarks: "an unrivalled artist painting by the yard!" Neither do I mean such patronage as seems to make it necessary for our unrivalled photographers to manufacture fine imperial card photographs for ten dollars a hundred, but I mean good liberal prices.

Now, ladies and gentlemen, pardon me for asking you, as candid, thinking people, what these conventions are doing to bring these things about? Some say, educating the photographers; well, with all due respect to the officers and members of the convention assembled at New York last year, let me refer to the published reports of the proceedings of that convention, and see what progress was made in that direction. One of the teachers, who had been announced to

speak and give practical illustrations under the skylight, was introduced, and commenced his profound teaching, by saying, "I have made no preparation at all for this thing, and will have to take it as it comes." Any of you who will read carefully what is reported to have come, I think will agree with me that he told the truth. Then said he, "I will say a word as to the lines of the face and posing." Under this head, he talked a great deal about the position and condition of peoples' noses and the irregularities of the human face, described and illustrated the workings of the toys used to get a pleasant expression in adults and to attract the attention of babies. Then he lectured on the size and shape of the skylight. He said, "the great trouble is, most of us use too much light; a light four feet square will illuminate a single figure head and bust." He regretted that he had not sufficient screens to reduce the light to that size, so he could show that it gave a better effect to the light and shade than the whole opening of one ten times as large. Then he went on speaking of the importance of having light enough to illuminate the shadows well; then he commenced to illustrate. I will repeat his exact words as reported in the *Photographic Times*: "Now we will suppose that I am operating with the subject. Now my dear sir, you are looking too intently; you want to watch my escape pipe, and see how many flies you can catch on that in a second. One, two, three, humble bee," I suppose this is what some call educating the artist. When I read this report the thought came to me, can any photographer ever give a thought to such nonsense, but to my surprise, when I opened the last *Mosaics*, I read on page 112, under the head of "What I gathered from the convention;" the writer, after announcing himself an humble member of the craft, expressed his thanks for the little bits of things he gathered at the convention, but said, as a whole, he came to the conclusion that some might look upon it as a grand failure. After indulging in this strain for a while, he said: "It did me good to see once more the face of that old veteran, Mr. ———, from the west, and to hear him, with so much vim and vigor, take up the cause of the art department of our work." Then, after repeating what he said about noses, etc., he said: "These are solid truths, and doubtless came not to the mind of our orator until he had buffed away many a wheel, on the road to fortune." But, said he, "when he came to the subject of lighting and light, he grew most eloquent," and after repeating his words, he said, "these are the words of a knight of the camera, if not the

winged wisdom of a God." The thought occurs to me that if the size of the light were the dimensions given by God, it was a great pity that God did not furnish His messenger with the valuable information before he built his own light that he was working under then, and is working under now, which is twenty by twenty-eight, only 560 square feet, instead of the Divine dimensions of 16 square feet. If men come to our conventions as teachers without any preparation and talk such absurd nonsense, and publishers of photographic books will give their valuable space to the repetition of it with eulogies like this I have referred to, can it be wondered at that the public prints hold up some of our prominent members in a derisive manner, or that a professor from one of our colleges of this State, should, in lecturing to our local society in Chicago, take occasion to speak of the ignorance of photographers, and errors found in photographic books? This reminds me of a circumstance that is said to have taken place more than two thousand years ago. Apelles, who had been called the prince of painters, was a great favorite of Alexander the Great, and was the subject of many personal favors from him. One day, when the emperor was in the artist's studio, he talked a great deal, but very absurdly, about the art, when the painter indignantly remarked, "while you were silent, the boys in my study were lost in admiration of your magnificence, but the moment you began to talk about what you did not understand, they laughed." Now, if men come here and talk about what they don't understand, no matter how magnificent they look, they must expect the boys at the reporter's table to indulge in a little levity at their expense.

I must say, however, that there were a great many good things at the last convention. One was this: "when on the Sabbath morning you take your prayer-book for attendance at church, be sure the key of the gallery door is in your pocket, and the doors locked against the boys and their friends; for little do you know what may be doing there to the injury of its good name." This is good advice, and if it could be put into universal practice, it would do much toward raising our profession from the low plane it is fast sinking to. I wish there could be a great deal more said about conducting the business; this is what we need. We have in our profession a great many good artists, but a very few good business men. The art would command very much more respect if it was conducted on higher business principles. We need not look to the cheap galleries alone for this condition of

things. They have not, could not do more to lower the art in the estimation of the best class of people than some of our best artists, with every appliance for making fine artistic pictures, have done. We must expect to see our art degenerating as long as our best artists persist in taking the professional people on speculation, and manufacture fine artistic prints by the thousands, and flood the market with them at from one to two shillings (ten to fifteen cents) each, which places them within reach of the most depraved people, who have no appreciation of their artistic merits, but purchase them simply on account of their cheapness, and the exhibition of limb, and the nearer to nudity the higher this class prize them. This may be a paying speculation of itself, but it is ruinous to the best interests of art. If diamonds were as numerous as pebbles, what value would they have? So it is in art, the more numerous fine pictures get, the less are they appreciated or valued.

You remember that Correggio died at an early age, only about forty. The excellent paintings he left were not numerous, but were highly prized, and very much sought after by amateurs. It is said that one of his Madonnas hardly two feet square, was prized at twenty thousand dollars. If he had left a thousand Madonnas of equal size and merit, do you believe they all would have brought twenty thousand dollars? I do not. The art of making chromos is capable of being carried to a high state of perfection, but the easy method of duplicating them has been pushed to such an extent that the very name of chrome is a by-word even among the common people.

If photographers persist in turning their fine studios into manufacturing establishments, photography will soon be in the same condition, Now let every member of this Association take this matter of business in hand without fear or favor. Let us talk more about conducting the business, and less about art and science, until we see our profession take the place it so justly deserves, besides the highest of the liberal pursuits.

THE SECRETARY.—About ten days ago I received a package containing some very handsome views, and with it a letter written in German, which has been translated and reads as follows:

MANTZ, GERMANY, July 13, 1882.

MR. J. C. CADWALLADER, Indianapolis.

DEAR SIR: I have this day mailed you to your address twenty-five view photo-

graphs, and I hope you will receive them in good shape and so that they will arrive in time before the Convention begins. For convenience sake I have shipped them unmounted. It would please me if you would retain them after exhibiting, and see that I receive in exchange a number of American views which I could compare with our works at home. With regards to the fraternity, I am,

Respectfully, yours,

C. HURTELL.

His photographs are mounted and are now on the west wall of Masonic Hall.

MR. WILSON.—I move a vote of thanks to Mr. Hurtell, and I suggest that those who have pictures here on exhibition, when they take them down, give as many as they can afford to Mr. Cadwallader, to be sent to Mr. Hurtell, in return for his photographs and his kindness. Adopted.

THE SECRETARY.—Here is another very handsome letter just received yesterday; it was delayed somewhere :

ROCHESTER, NEW YORK, August 5, 1882.

MR. J. CADWALLADER, *Secretary,*
and friends of the P. A. of A.

I regret very much that I cannot be present at the Convention this year at Indianapolis, and meet once more with the many friends of the art. Not being called upon to contribute to help pay expenses, and knowing that they will be quite large, I hope that the Association will accept the enclosed with the best wishes of the American Albumen Company. A. M. BROWN, *Secretary.*

The letter contained a check for twenty-five dollars. A vote of acceptance and thanks was passed.

MR. WILSON.—I have received from the Chambre Syndicale at Paris a communication asking for subscriptions and contributions from our body for the memorial to be erected to Mr. Poiteven. Those who have read the review of the life of Mr. Poiteven, how much he has done, and how much we owe him, are familiar with the subject. Let me state briefly, however, that he was one of the fathers of photography, and that we owe him for many methods that we every day use in our practice. He is now dead,

and left a family whom he neglected in his life for the purpose of science, and who have no means. This memorial is, first, to erect a modest monument to his memory and then give his family what remains. What shall be done with this communication and this request from our co-workers in France? I may say England, Germany, and the other countries abroad are doing something in order to have a brick or a piece of marble or something in this monument, and also to do what is the right thing to do in memory of one who was not only so useful to us but who was beloved by everybody who knew him personally.

THE PRESIDENT.—Gentlemen, has anybody got anything to say on this matter? Mr. Poiteven, I believe, is the inventor of more photographic processes than any man who ever lived.

MR. BEEBE.—I would like to say, if I am not mistaken, that we contributed 525 francs, something over \$100, to the monument of Daguerre; I move, therefore, that we appropriate twenty-five dollars, or one hundred and twenty-five francs, to the monument to Monsieur Poiteven. Agreed to.

MR. COOPER.—I move you, in view of the fact that you have only considered in this motion an appropriation for the *monument*, and as nothing has been said about collecting a purse for the family, that we leave to the individual members of the Association to do what they feel is best. The Association contributes to the monument while the members individually do the best they can for the family. I leave it to the feeling of the individual members to do what they can in the matter.

MR. BEEBE.—I have a suggestion that will harmonize with what has been done. I move that Mr. Wilson be a committee of one to circulate the paper among the dealers and fraternity for subscriptions for the family of the gentleman. Mr. Wilson, I know, will undertake it. It is a labor of love with him, and no doubt he could do more than we could accomplish now. I move also that we collect what we can now for Madam Poiteven. Agreed to.

Subscriptions were then asked to be handed in.

MR. FITZGIBBON.—I will start the ball by giving \$5 for the good cause.

THE PRESIDENT.—I will give \$5 also.

MR. BEEBE.—I wish to say, as long as Mr. Fitzgibbon has started it, it is a good time for us all. I give \$5 also. We might take a few moments to see if we could not get a few more subscriptions, if the President has no objection.

THE PRESIDENT.—I think it can be done. I will commission Mr. Fitzgibbon to pass around and get the subscriptions. While the collection is being made I will read a question from the question box, viz: "Should the printing baths be acid or neutral, and which produces the best result?"

MR. ISAACS.—The neutral printing bath in my case produces the best result. It is much easier to keep in good condition than an acid one. It will set free the organic matter and clear it, while the acid bath will hold it in solution and contaminate the bath sooner.

THE PRESIDENT.—Has any one else something to offer?

MR. COOPER.—In reference to the various methods by which the printing bath may be kept in a neutral condition, I would say that the method most generally adopted has been the one already referred to. I have found one of the most signal and effective methods has been to use crystals of sal soda in the printing bath. On many occasions I have noticed, and it has been told to me by printers who do very fine work, that they have never filtered their baths. They have mixed the bath up, and placed in the bottom of the dish just the clean crystals of washing soda, and then added the bath to it. There is a certain proportion of the soda which dissolves, and neutralizes the bath immediately after the insoluble precipitate is formed over the crystals. No more of the soda is free to go into the bath at all, because it is covered with insoluble matter. Before printing the bath is stirred up, and the carbonate, which is the carbonate of silver, formed from the crystals, is free and redissolves again, and neutralizes the bath. A piece of blotting paper is used to scum the bath off, and then the silvering progresses.

THE PRESIDENT.—I think that would be a very good plan.

MR. BEEBE.—If that subject is exhausted, I would like to give the gentlemen remaining a good developer:

No. 1.

Alcohol, 4 ounces.
Pyrogallic Acid, . . . 1 ounce.

No. 2.

Water, 60 ounces.
Bromide of Ammonium, . . 1 drachm.
Liquor Ammonia, . . . 2 drachms.

Use one drachm of No. 1 to ten ounces of No. 2; call it your normal developer, varying it as you choose. I think it gives you the greatest freedom from fogging. I have tried every pyrogallic developer, and I like it better than Edwards'.

Q. Will No. 1 keep?

A. It will keep for a long time.

Q. The first solution will turn red?

A. I have kept it in a glass stoppered bottle. I use it rather rapidly. I only judge from my own experience. The pyro and alcohol will keep for a long time.

MR. SCHLEIER.—It becomes a very deep red, and I should think that it will keep better by adding glycerine.

MR. BEEBE.—That is the Edwards' formula. He said he had no trouble with regard to its keeping.

MR. COLLINS.—My experience is that by the addition of a little citric acid it will keep for months. I think that is better than glycerine, although glycerine is very good.

MR. SCHLEIER.—In case we use citric acid we have to put in a proportion more of ammonia to neutralize the citric acid. You must not forget that.

MR. BEEBE.—I recommend you to try that, and then try the Edwards' formula, which has the glycerine; but simply try this as an experiment when you get time and have the inclination to do so.

MR. COOPER.—In reference to the air bubbles coming in the plate in using the developer, I think you will find such will occur if you do not wash your plate enough. The presence of air bubbles is due to the slowness with which the alcohol in the developer combines with the water already poured on the plate. That is the secret of

the trouble of the air bubbles. Not to wet your plate.

MR. EDGEWORTH.—I wish to say with reference to the developer given by Mr. Beebe, that I regard it as a very fine one. In regard to the alcohol, or pyro discoloring the alcohol, I have got pyro dissolved in alcohol in my house that has been there for three straight months, and it is just as clear to-day as at any time. I was very careful to have my alcohol pure. I did not have it diluted half full of water. Most photographers know, that if you add pyro to alcohol that has more or less water in it, it will discolor it and it will lose. And in my opinion, pyro, after it is discolored, will lose its effect to a great extent. I think wetting the plate is detrimental to it, because in some places it takes effect and in some it does not. To my mind, to have a perfect surface, the plate never should be wet.

MR. BEEBE.—I want to give the gentlemen a little hint that I consider most valuable. Something has been said about the method in which you light the pictures for the dry-plate work. Ninety-nine out of every one hundred use too much light. Mr. Kent has his skylight covered with white muslin. The effect of this is to bring out the white drapery exquisitely, and his dark draperies are beautiful. His pictures are made practically instantaneously. He uses very much less light than any of you use. I find in my own skylight, which is a light one, unless I use the light very much toned down my light draperies are white and pallid. He uses first white frosting on his skylight, under that a white sheet, then he uses a few simple screens, and gets the most exquisite effects of light I have ever seen.

MR. REED.—By using the glass tray which has been described, with the oxalate developer, and with the pyro, with about half an inch of water over it, you will see a very beautiful picture, provided you have developed with your pyro deep enough.

A MEMBER.—I would say I saw a plate developed this morning; I took part in the operation. I learned something while the operator was developing the plate that I did not know before. I discovered something

which I had used but did not really understand it before. The operator poured in old developer, that he had used probably the day before, laid the plate in and left it there quite awhile. It did not come up, and I discovered that that plate was nothing more than wet by the old developer, soaked through and through, and then he commenced to build up his developer upon the top of that, and the developer went directly through the film, or into the film. It did not commence to develop upon the outside of it but clear through it.

Q. Was it pyro or oxalate?

A. The oxalate developer.

THE PRESIDENT.—Gentlemen, I now take pleasure in introducing to you my friend, Mr. Harry Fowler, of this city.

MR. FOWLER.—Gentlemen, I have been waiting some minutes to get some arrangement before you, the arrangement of the picnic this afternoon. I also wish to say that arrangements have been made for the train to be at the crossing of Washington Street, six squares west, at two o'clock sharp. I understand that there has been quite a number of members who have left for home, or intend to leave some time during the afternoon. We are desirous of having as many members remain as possible to participate in this little entertainment gotten up expressly for you by the members of the Shooting Association as a compliment to the association. I will say this: We will have a train run in for the benefit of those who wish to leave this evening at an early hour, we will say between five and six o'clock. We will try to make arrangements for a train to run in for their benefit, leaving the others who wish to remain there longer the privilege of remaining on the grounds. We would like, as I said before, as many as can find it convenient to attend that entertainment to do so. This is in compliment to the Shooting Association which has so kindly tendered us their grounds. They have provided every thing in the way of amusements that could possibly be thought of for the use of the members who are on the grounds. There is a six hundred yard shooting range, three bowling alleys, with other amusements there which they have gone to the trouble to put there for the bene-

fit of the members. They have also deferred their meeting which they have for themselves and families usually on Thursday afternoon until to-day, so as to participate with the Association, and assist them in enjoying themselves. (Applause.) I would like to make a suggestion, that the members of the Association meet here at half-past one o'clock sharp, so as to go out there and have as good a time as possible.

Q. What is the fare ?

THE PRESIDENT.—Nothing.

MR. FITZGIBBON.—I take pleasure in announcing that we have collected \$64.50 for the widow. (Applause.)

THE PRESIDENT.—That will give her a good dinner.

MR. WILSON.—This is a great pleasure. The impromptu collection here this morning for the Poitevin family amounted to \$64.50. It is a glorious thing. As the amount for the monument by the appropriation is \$25, making a total of \$89.50, just \$10.50 short of \$100, are there not some gentlemen here who wish to make that up, so that we may give the good, square sum of \$100 ?

The sum was made up by a few gentlemen, and the result announced amid great applause.

At this point Mr. Wilson made some remarks on his developer, which are embodied in his paper.

MR. HALL.—I want to ask a question of Mr. Wilson. Do not different brands of plates require different intensities; that is, is it necessary to develop some brands until nothing can be seen on the plate but the plain surface ?

MR. WILSON.—It is very often so.

MR. HALL.—While others are good and strong and you can see the image well ?

MR. WILSON.—I stumble around and feel my way until I am sure I am right, and then I go ahead. (Laughter.) I had a celebrated manufacturer of plates in my office the other day, and I asked him how I should develop his plates. His reply was, "I don't know; develop one and you will find out." And that is just the truth; the plates are as different in their action as albumen paper is, and you know how contrary that is sometimes. There is no rule, and there

never will be until gelatine is regular in quality. As long as the gelatine is ugly the plates will act differently. Begin with a weak developer and keep your eyes open.

MR. CLIFFORD.—I would like to hear some remarks upon the question of the developer. You say, begin with a weak developer. Some use a strong developer, full strength of potash. I would ask whether it is better to put a small quantity of iron into the full strength, full quantity or a small quantity of oxalate of potash, or reduce the whole with water, and make it about equal strength, both parts.

MR. BEEBE.—The oxalate has nothing to do with the development, it is a retarder; iron is the strong developer. Mr. Cramer can tell you something about this matter.

MR. CRAMER.—One remark has been made that has pleased me as to the principal object of the oxalate of potassium. If you mix the two solutions, the oxalate of potassium and the sulphate of iron, you will form a new compound, as was stated by Dr. Garrison; you will form the oxalate of iron, and that is not soluble in water. The action of the oxalate of potassium is not as a restrainer even, it is a solvent medium for the oxalate of iron. It seems to me it is not hurtful, if you use a little more or less. The more concentrated the developer, the more powerful the action. I wanted to say a few words in answer to the question how to tell whether the plate is over-exposed or not. You cannot tell the time required for the development. You all know that in an under-timed negative you will have the lights too strong and the shadows deficient, and that is just the characteristic feature in telling whether the plate is over-timed or under-timed. It may take five minutes, it may take ten minutes, still it is over-exposed when you can see that the lights and shadows come without sufficient contrast. As soon as you see that, you will have to remedy your developer. The plan which Mr. Wilson has explained is a good one, having developers of different strengths. In that case you run the plate from one solution to another, one that has more restrainer, as bromide of potassium, etc., and to the other developer if it is over-timed or

under-timed. You should transfer it as quickly as possible according to circumstances. As to the other remark that the gentleman made, *i. e.*, how far the negative must be developed, it is true that peculiar brands of plates require to be developed further than others, but, as a general rule, it is well to develop a picture a little further than usual. It will not spoil by developing a little more, and you get a richer negative. On the other hand, if not developed enough the negative will take longer to intensify.

MR. REED.—I will give you a wrinkle that some have not seen in print. When you take a plate out of the developer you will find some parts in the shadows that you fear will not come up clear enough in detail. If you breathe on it, it warms the developer on that spot and hastens its action.

MR. BEEBE.—Mr. Wilson, I would like to ask you a question: You say you have sometimes had a plate develop stronger in one part than in another? You did not give us an explanation of it. My theory is based on considerable experience; it is simply owing to the way the gelatine emulsion is set on the plate. It has set a little bit harder on the one part of the plate, or the plate might have been held to one side, and the gelatine has run to one side when the plate was on the slab, the slab not being level—the glass, not the maker.

MR. WILSON.—The maker of the plate might not have been level.

MR. BEEBE.—The maker of the glass was not level.

THE PRESIDENT.—I have pictures of peculiar spots formed by the hypo, and the gentleman wishes us to give some solution of the difficulty, and I will pass them around to the members so that they can see them.

MR. POOLE (St. Catherines, Canada).—Mr. President, I propose to take a few moments of your time in discussing matters purely photographic. A friend of mine wrote to me about a difficulty he had in washing dry plates, and he asked me if I could help him out of his difficulty. I said certainly: if you will turn to the photographic journals you will find a formulæ for the elimination of hypo. It was the acetate of lead. I will now give you the formula, so

that you can overcome the difficulty that he had, and instead of washing your dry plates for several hours do it in five minutes. After you have developed the plate and fixed it, you can have the plate ready, perfectly free, in my estimation, of the hypo. The formula is simply this, to make the *eau de javalle*, you take hydrochloride or carbonate of potash, four ounces; dissolve it in one and a half pints of water, and add two ounces of dry chloride of lime. I make a difference between the ordinary chloride of lime and the dry chloride. Four ounces of dry chloride of lime in twenty ounces of water. Now mix that and dissolve, and you have as the result, a peculiar, thick, white, or creamy liquid. Allow it to settle, and when settled on the top you have a beautiful clear liquid. You have then the hypochloride of potash. That solution will cost from six to eight, perhaps ten cents. You will have enough—I cannot tell you how many plates it will answer for.*

MR. SCHLEIER.—Can you immerse more than one plate?

MR. POOLE.—I will explain what I do, and each photographer will understand it. My plan is to remove the plate from the hypo, and immediately upon its removal I pour a sufficient quantity of the dilute solution upon it to keep it well covered. Put your finger along the edge, and if you go a little over it will not hurt. If you rinse the plate it is better. You have less hypo to contend with. Place it there and retain it about a minute. That being done, wash well for a couple of minutes. You can stand it up while it is drying. But I will tell you what I do. Instead of standing it away, I take a large, soft sponge (indicating) and go over the place that way, (indicating). What is the result? The plate will be nice and dry in twenty minutes. That's been my observation. You will have the surplus water all washed away and you will have nothing but the damp gelatine to dry.

Q. What do you use in case of a large plate?

A. The sponge is not big enough, and I take a squeegee.

*See Mr. Poole's article in *Photographic Mosaics*, 1883, for further details.—Ed. P. P.

Q. How would a camel's-hair brush do?

A. That would be about as well as a sponge. *The Photographic Journal*, *THE PHILADELPHIA PHOTOGRAPHER*, and *Anthony's Bulletin* had this formula. I forget whether it was in the other photographic journals or not. This emulsion was used for the elimination of hypo from the prints.

At this point an expression of opinion was given as to the cause of the spots in the prints.

Q. Where are the blisters formed, in the hypo or out of the hypo?

A. It is very likely in the solution.

MR. HALL.—The question of blisters has been discussed a good many years. I used to think sometimes I had it, then when I tried to put my finger upon it it was not there; but for the last few years I have become satisfied, and I have not the least doubt of it, that if the paper is moist enough, I do not care what brand it is, if it is moist enough, not too dry when you silver it, you will not have blisters; and some stockdealers in our city understand that and keep their paper in a damp place, and when it is sent out to the photographers it is in a good condition to work. I asked a distinguished photographer in our city if he was troubled with blisters, and he said that he was not. He said, we send to a certain place, that he mentioned, where they keep the paper in the basement, and got small quantities at a time so as to have it in good condition when it comes to him to work. Now, I have had paper within the last three months and it works splendidly, not a blister to be seen at all; but I had some of it in a dry place on the shelf, and the last of that paper was almost ruined from being so dry when I silvered it; the next lot of paper that I got worked all right.

A MEMBER.—I have tried all the formulas published to cure blisters on paper. I have never seen anything that would stop it, except putting them into salt-water. I have tried putting it in a damp place, it is the same. I have found the paper will blister more quickly if it is not thoroughly silvered; only the week before last I had great trouble with my printer. Something over thirty or forty cards and a number of dozen of views, every one of them almost

spoiled. I found out what was the difficulty, I found it was from the fact of the silver being too weak, and the paper not half enough silvered. I strengthened the silver and the blistering stopped.

MR. GOEBEL.—I have found out the fault is in handling the paper. If the paper is handled carefully the blisters will not appear?

Q. Is not that from the water getting in?

MR. GOEBEL.—We see these large blisters in big prints, which are harder to handle than the small ones. If you have any cracks in your paper you will have blisters.

MR. WILSON.—Mr. President, the hour for adjournment has more than arrived. I move, sir, that we be introduced formally to our new President, and that we then adjourn.

THE PRESIDENT.—It has been moved and seconded that we now close up this business, and in so doing, I wish to state that, as the retiring officer of this Association, I offer you my kindest thanks. I feel that my labor has been well rewarded by the attendance and by the productions which have been on exhibition in the other hall, and I hope that this will be only a nucleus, and that the future may increase and may be similar, as I was informed not later than yesterday, that as the Centennial Exhibition in 1876 eclipsed a country fair, so the third convention of the Photographers' Association of America stands above the second convention. Gentlemen, I thank you for your kind attention. I thank you for your forbearance, and if I have erred, I pray that you will forgive and forget. (Applause.) I have worked for the interests of this Association; it was my aim when you nominated and elected me to that office a year ago. I was then a kicking stone of a certain ring; I was told that I would be the cause of the downfall of this Association, and I feel proud, and I thank God that this Association still lives, and that it is still in existence and a grand success. I now have the pleasure, and it is indeed a great pleasure to me to introduce to you my fellow-citizen and brother, John Beebe, of Chicago. (Tremendous applause and three cheers.)

MR. BEEBE.—Gentlemen, in taking the

gavel, it is with rather peculiar emotions that I say that the opening of the new year for us is fraught with a great deal of interest. Our precedent, which has been set by our President, is certainly one very hard to eclipse, and I feel every one is going to his home determined to make our next year's Convention something nobler and something better than this year's. I beg you all that you will not forget now, in your homes, a little work—the careful saving of specimens now and then. A little looking forward to the future will be of immense value to us in Milwaukee. Remember, we are to be the Association in future; help me all you can; bear with my faults, as a young man; those who are older, don't get impatient with me at my rulings; they will be made, as nearly as possible as I can make them, in accordance with parliamentary rules. I believe an adjournment is in order, and I bid you an adieu for the next year; and I hope to meet you, with 2,000 more, at the beautiful city on the shore of Lake Michigan.

MR. CRAMER.—I hope before we adjourn we will pass a resolution expressing the hearty thanks of the members of the Convention to the officers of this Association, the President, the Treasurer, and the Executive Committee, for their endeavors to make this Convention such a great success as it has been; and therefore I offer this resolution, that the past officers, who have made these efforts and done their best endeavors, be accorded a hearty vote of thanks.

PRESIDENT BEEBE.—Gentlemen, you have heard the motion—a most appropriate one. Having seen your President work the last year, no one can testify more than I can, how he has constantly neglected his own business and his own personal comfort. I know, from our personal contact, how he has labored night and day for our success. He has done all this, and I know that next year we will have his assistance the same as if he was the officer. Not only that: but the other members of the Committee have worked hard and faithfully; and I now with great pleasure put the question that a vote of thanks be tendered to the retiring officers.

The question being on the motion to pass

a vote of thanks to the retiring officers, it was agreed to.

Then, on motion, adjourned.*

ANOTHER ASSOCIATION.

For some time back a project has been under way for the formation of an association whose membership should comprise the stock-dealers of America.

The idea took substantial shape at Indianapolis in August, during the week of the late Convention, and the Association was formed and officers elected.

Agreeable to adjournment, the first regular meeting was held in Cleveland, Ohio, September 5th, and on another page a report of the proceedings will be found.

The organization of this body has been found necessary in order to keep pace with the growth of American photography. What we could gather by our presence at the meeting convinced us that the gentlemen engaged were desirous of joining hands in all such matters pertaining to the *business* of photography as will promote the best interests of all concerned, by raising the standard of excellence of work, by opposing everything that aims to degrade our art, by acting as a barrier to all impositions upon the craft, and to assist in every legitimate way to produce better work and to obtain better prices for it. The dealers, perhaps better than any one else, understand the best manner of combating the drawbacks which assail us all more or less, and by concerted action propose to use such measures as will aid the artist in securing more agreeable relations with the patron.

No one better than the stock-dealer knows that his welfare depends upon that of his patrons, and that anything that he can do to assist them brings business to himself.

The very existence of such an association will act as a preventive of many evils and impositions, and will enable all concerned the more easily to "brace-up"—to grow and prosper.

* List of exhibitors and editorial remarks on the Convention are crowded out. Will appear next month.—Ed. P. P.

We heartily wish the new organization great success, and will co-operate with it so long as it works *pro bono publico*. The names of the charter members are a guarantee that earnestness and integrity of action are assured.

PHOTOGRAPHIC STOCK-DEALERS' ASSOCIATION OF AMERICA.

THE first formal meeting of the above association was held in Cleveland, Ohio, on the 6th inst., the following gentlemen being present: Hon. F. Hendricks, Syracuse, N. Y.; David Tucker, Buffalo, N. Y.; D. K. Cady, Cincinnati; E. L. Wilson, Philadelphia; H. Q. Sargent, Cleveland; T. W. Pattison, Chicago; Edward Cope, Philadelphia; T. H. McCollin, Philadelphia; W. Irving Adams, New York; V. M. Wilcox, New York; C. H. Jordan, Cincinnati; John C. Miller, Cleveland, O.; Orville Allen, Detroit; J. A. Anderson, Chicago; Henderson George, Indianapolis; G. R. Angell, Detroit; W. R. Reid, Cleveland, O.; J. W. Bryant, La Porte; J. C. Somerville, St. Louis; H. A. Hyatt, St. Louis; and Gayton A. Douglass, Chicago, who, as President of the Association, occupied the chair, Mr. McCollin, Secretary, officiating as such.

The President briefly directed attention to the two previous meetings of the organization which had been held in Indianapolis, and called upon the Secretary to read the minutes of those meetings.

The report of the committee appointed to prepare a constitution and by-laws was read and received.

Letters of approval and regret at unavoidable absence were read from the following: R. B. Mullett, Kansas City, Mo.; D. J. Ryan, Savannah, Ga.; George Murphy, New York; George W. Jorns, Springfield, Ill.; S. T. Blessing, New Orleans, La.; R. Uhlman, St. Joseph, Mo.; T. F. Indermill, St. Joseph, Mo.; Bachrach Bros., Baltimore, Md.; B. French & Co., Boston; Wilson, Hood & Co., Philadelphia; Elmer & Tenney, Winona, Minn.

Mr. D. K. Cady, of Cincinnati, O., was chosen Assistant Secretary.

The adoption of the constitution and by-

laws of the Association offered by the committee was next proceeded with, and that work occupied the morning session up to adjournment.

The afternoon session opened with the election of the following Board of Managers: Hon. F. Hendricks, Syracuse, N. Y.; D. K. Cady, Cincinnati; H. Q. Sargent, Cleveland; C. H. Codman, Boston; Edward Cope, Philadelphia; G. A. Douglass, Chicago; W. Irving Adams, New York; Edward Anthony, New York; R. B. Mullett, Kansas City; T. H. McCollin, Philadelphia, and J. C. Somerville, St. Louis.

The committee appointed to procure an engrossed copy of the constitution, presented the same, which was read and approved.

The constitution now being ready for signatures, the questions "What constitutes a dealer, and who shall sign this newly-born document?" came up. These queries were argued at some length, after which it was decided that the question should not apply to any one present, but that every one who had shown interest enough to attend the meeting should be eligible, and that hereafter the Board of Managers would, agreeable to the constitution, decide the point in question.

The Convention adjourned to meet at Saratoga in June, 1883.

The following are the charter members of the Association: E. Cope, of A. M. Collins, Son & Co.; W. Irving Adams, of Scovill Mfg. Co.; V. M. Wilcox, of E. & H. T. Anthony & Co.; H. Q. Sargent, of Sargent & Co.; T. W. Pattison, of Hiram J. Thompson; D. K. Cady, of P. Smith & Co.; David Tucker, of David Tucker & Co.; G. A. Douglass, of Douglass, Thompson & Co.; C. H. Jordan, of Jordan & Sheen; Orville C. Allen, of Allen Bros.; Henderson George, of H. Lieber & Co.; W. D. H. Wilson, of Wilson, Hood & Co.; with the following representing the firms of the same name: J. W. Bryant, Wm. R. Reid, J. C. Somerville, H. A. Hyatt, Hon. Francis Hendricks, T. H. McCollin, John C. Miller, E. L. Wilson, J. A. Anderson, G. R. Angell. J. B. Pelgrift, of Scovill Mfg. Co.; R. B. Mullett, of Mullett Bros.; B. French, of B. French & Co.; J. F.

Indermill, St. Joseph, Mo.; S. T. Blessing, New Orleans, La.

There are seventy-five photographic stock-dealers in the country, and the trade amounts to several millions of dollars per year. But a few years ago there were but a half dozen dealers, and now nearly every city has a representative. There are six photographic journals devoted to the interests of the art, and between six and seven thousand photographers to keep the business going.

The members of the Association express themselves as well pleased with the results of this, their first regular convention, and also state that they confidently expect a successful future for the new venture.

OBITUARY.

JOHN H. FITZGIBBON.

THE beginning and the ending of our last issue gave the news to the world of the death of another father in photography, John H. Fitzgibbon, editor of the *St. Louis Practical Photographer*, President of the Photographic Association of St. Louis, of which city he was a resident, and a recently appointed member of the Committee on the Progress of Photography, appointed at the last Convention of the Photographers' Association of America.

Little did we think, when parting from our beloved friend at Indianapolis, at the close of the Convention, after sitting by his side on the stage, joining him in the work of gathering up information, doing all that we possibly could for those who could not come, that so soon we should hear of his demise. Not only did he appear then to be in unusual good health, but he was more than usually genial, and full of humor and mirth, and apparent happiness. So it is, indeed, sad to think that we shall never see him any more. What is too, a strange incident, when at the close of the last session of the Convention a project was brought before the meeting to erect a monument in memory of another most useful veteran in photography, Monsieur Alphonse Poitevin, our departed friend was the first to rise in his seat and to respond impulsively and good-heartedly

to the call, leading many others to follow his example by this prompt good-heartedness. In less than two days after this kindly act he was dead.

So far as we can learn, he departed, with his excellent wife, for his usual summer vacation in the East, from Indianapolis on the Saturday following the close of the Convention, and while, on Saturday night, in the sleeping car, between Dayton and Xenia, Ohio, he complained of being faint; water was given to him, the windows were thrown open, and a telegram sent to Xenia to have a physician in readiness when the train arrived, and every attention paid and precaution taken to provide for his comfort and relief, but he died in about twenty minutes. A post-mortem examination was made in Xenia, which showed the cause of his death to have been heart disease.

His afflicted wife was then compelled to turn her steps sorrowfully homeward with the dead body of her beloved husband, where the last tribute was paid to his remains by his fellow-photographers, friends, and relatives. All the prominent photographic galleries of the city of St. Louis were also closed on the afternoon of the funeral in respect to the memory of their friend. Mr. Fitzgibbon's life has been an eventful one. He was born in London, and removed to this country when quite young with his father, Michael Fitzgibbon, who settled in New York. When the deceased became old enough to manage for himself, he came to Philadelphia as an apprentice to the saddlery business, remaining here until he had learned his trade. While here he married Miss Amelia Albright, who died suddenly in St. Louis during the war, leaving her husband with five daughters and one son, all of whom are still living. From Philadelphia he removed to Lynchburg, Va., where he kept a hotel until he heard of Daguerre's discovery, when he went into the picture taking business; after a few years of success he removed to the West, sailing down the Ohio, and making his way up to St. Louis, where, about thirty years ago, he opened a photograph gallery which at that time was the largest in the city. He also engaged in the stock business at

St. Louis, and sold out, we believe, to Mr. W. H. Tilford about the beginning of the war, when he went to Vicksburg, Miss., where he opened a gallery. The troubles there drove him away and he tried to run the blockade, but was captured with others and taken to Cuba. After his release he went to New York and engaged in business, and it was there that we met him for the first time. We shall never forget that day; it was in the store of William B. Holmes. He then bore the same pleasant, genial, beaming, happy countenance which he did when, with our arms around each other, we said good-by at Indianapolis, little thinking that we should never have that pleasure again on this earth. While living in New York Mr. Fitzgibbon married his present wife Miss Louisa M. Dennis, of Buffalo, who is left to mourn his loss with his many friends. In 1869 he opened another gallery in St. Louis, which he occupied until the buildings were torn down to make room for improvements. About six years ago he retired from business and turned his gallery over to his wife, who managed it until about a year ago when it was sold out. When he retired from active gallery work he had already begun the publication of the *Practical Photographer*, and has, amid many drawbacks and opposition, made it a success, at least so much so as to enable him to devote himself entirely to it and to feel that he could support himself comfortably the remainder of his life. He was in his sixty-fifth year when he died, and is said to have been the oldest photographer in the United States except one. As the resolutions of the Milwaukee paper stated, published in our last issue, although an old daguerrotypist, he was in every sense up with the spirit and the enterprise of the modern improvements and advances of photography, and as hearty in his desire to forward anything that would benefit our art as anybody could possibly be.

His remains were taken to Bellefontaine, with the following photographers as pallbearers: Messrs. Andrew J. Fox, Joseph W. Fischer, Gustave Cramer, George H. McConnel, Henry A. Hyatt, Fitz W. Guerin, John A. Hubbard, and Robert Benecke.

At a meeting of the St. Louis Photog-

raphers, held August 4, 1882, the following resolutions were adopted:

Whereas, The Great ruler of the universe has in His infinite wisdom removed from our midst our worthy President and esteemed co-laborer, John H. Fitzgibbon; therefore be it

Resolved, That we, the photographers of St. Louis and members of the Photographers' Association of this city, receive with profound sorrow the announcement of his sudden death.

Resolved, That the energy and ability which he has displayed in the promotion of the photographic art will ever be held in grateful remembrance by each of us.

Resolved, That his removal from our midst will prove a grievous loss to our city and to the photographic world, and leaves a vacancy which will be deeply realized by all our members and his friends who have held intimate relations with him during a long business life.

Resolved, That we sympathize with the afflicted wife and family, and as a mark of esteem shall close our respective galleries in order to attend his funeral in a body.

Resolved, That a copy of these resolutions be presented to the wife of the deceased and published in the daily papers and photographic journals.

J. C. SOMERVILLE,
G. CRAMER,
R. BENECKE,
Committee.

At the funeral the most gratifying floral offerings were made, and everything done to show respect, honor and love for the last remains of the departed friend.

We dare not speak personally of ourselves in this matter. Although sometimes clashing in business, and feeling it necessary to oppose each other, it is well known that our hearts were one, and our friendship unbounded. We neither of us were ashamed to show it when opportunity was afforded. We mourn over the death of our late contemporary, and shall never forget the good we have learned from him. For his useful life, we feel gratitude to the Giver of all good.

A SUGGESTION TO PHOTOGRAPHERS.

IN the matter of the death of Mr. Fitzgibbon, it has occurred to us that, inasmuch as he was a father in photography, and moreover because he was an earnest friend of all those who devoted their lives to our art, that it would be a very fitting thing, in fact, almost a duty, on the part of the American photographers and those who are connected with them in various manufactures pertaining to our art, that they should contribute a fund sufficiently large to enable a properly appointed committee to provide a monument to be erected over the grave of Mr. Fitzgibbon, in honor of his useful life. We have already had subscriptions offered us of from twenty-five dollars down, and shall be very much pleased to receive from any of our readers any sum which they feel themselves able to contribute for this good purpose. This is rather an informal way to get at it, but if any of our friends will aid us in this project by constituting themselves self-appointed committees to do the work, and report to us, all contributions that are received shall be recorded in these pages, and in due time the net result announced. We hope and believe that there is sufficient gratitude in the hearts of American photographers to make this testimonial something creditable and honorable.

OUR PICTURE.

A GREAT many of our readers have expressed themselves as being so much interested in our letters from the Orient that we have concluded to give them some life pictures representing certain *queer characters in Cairo*, whom we met each day during our stay in that magnificent city. Not only did we see such admirable street pictures in Cairo but in every other Egyptian town which we have visited in our long sojourn among the Arabs. We have already said so much about that strangely interesting country that we need not remark further upon the pictures now than to describe the characters represented in them.

The first picture on the left upper row is that of a fuel-seller, a little maiden such as

we have seen often gathering camel-dung and droppings from the street. They carry it to their homes, where the whole family help to pat it into cakes of the shape shown in the picture, and then stick it to the sides of their buildings, where it remains in the sun until it is sufficiently dry for fuel purposes. When it is "ripe" it drops to the ground, and is gathered up and is taken to the market.

The second picture represents one of those shrewd, old characters of Cairo, known as a money-changer. He is photographed just as he is found in nature, seated by a wall near the shade of some busy bazaar, with his praying cloth spread before him, and his coins upon it ready for business. These men are very useful to travellers who wish to change their own money into that of the current coin, and also to the small purchasers who desire to exchange the silver coin for those of less value. To what extent this thing is carried on may be judged when we state that on one occasion we proffered a five-franc piece for a purchase amounting to about fifteen cents, when sixty-four coins of various amounts were given to us for our change by actual count. Hence the amount of money which a money changer must handle in a day must be immense, as far as quantity and weight are concerned.

The third picture represents the method adopted by the Arab women for carrying their children. The child is oftener naked than clothed, and sits astride its mother's shoulder while she travels on her way, and is usually asleep, as is the one taken in the picture. The little arms are folded over the mother's head, where the baby had placed them, and it is in the land of dreams.

The fourth picture is a market scene, and shows the method adopted by Arab women for covering their faces from our sight, and also how an Egyptian bargain is made. The man is seated, with the intention of buying probably two or three cents worth at most of the cakes of Egyptian bread which are seen upon the stand, but he must bargain for them; meanwhile he sits down and partakes of a cup of coffee with the market woman, while the subject of price and quantity is discussed. First, he must decide whether he will buy any bread at all or not; second, the price

must be agreed upon; and then, third, the question is discussed whether he shall buy to-day or come at some other time.

The fifth picture is the portrait of a Bedouin Arab, and a Nubian by birth. He is a savage-looking fellow, but as a rule is not found to be nearly as savage as he looks. Our experience with such, as far up the Nile as a thousand miles of travel could carry us, was that generally they were good-natured and affable, and very ready always to help the poor photographer in distress.

The sixth picture shows the means of carrying water through the streets of Cairo, and through the country. It is not every water-carrier, however, who is blessed with so expensive a means of carrying as the principal character here is, for usually the water is carried in the skin of a goat, sewed up tightly that it may not leak over much, and swung across the shoulders.

The seventh picture is what we would call in New York or Philadelphia a gang of street Arabs, this time truly so; these noisy, little boot-blacks, however, were not found to be any more persistent or offensive in their behavior than those in our own cities. They are usually modest and quick and ambitious, and do their work well; and many of them speaking a few words of English, made it quite a pleasure to receive their attention.

The eighth picture represents some orange-sellers seated by a latticed window in Cairo, and is a still better example of how the face veil and nose piece described in one of our letters is worn. Those who wear these head appendages are married women. The one with an uncovered face offering the fruit is unmarried, or, as the Arabs usually term it, a virgin.

The last picture represents a group of street characters, the principal one of which is the famed and comical donkey-boy with his equally comical donkey. These two strange creatures make more sport and do more toward the amusement and life of the Eastern cities than any other class of individuals, and they are as useful as they are entertaining. We have already written considerable about them in our letters, and in justice could not make up these mosaics of our co-workers in Cairo without including a donkey and his driver. Wherever you go in

these Eastern cities you hear the clattering of the tiny hoof of the donkeys upon the stone of the pavement, sounding like castanets, and the shout of their driver sounding deeply and loudly amid the busy throng which one meets continually. Thousands of these little animals are used, not only for riding, but as beasts of burden, and doubtless their occupation will never be gone in cities like Cairo and Alexandria, because there is no chance for a tramway to drive them away from the streets, as we found it had done in Naples, when we made our second visit there a few weeks ago.

Presently we shall present our readers with an example of work representing one of the "bits" first, of the Island of Philæ near the cataract of the Nile. Our pictures in this number were printed on the "Eagle" brand of paper, imported by Mr. G. Gennert, of New York, of the new color known as "Pensé."

THE PENALTY OF GREATNESS.—"Is this Mr. WILSON," inquired a fashionably dressed young lady who came into our office a few days ago. Our answer was "Yes, madam," to which she responded, "Well, sir, I am the happy mother of a little boy whom I desire to name after you if you have no objection." We modestly replied, "None whatever, madam; provided you submit to the usual conditions." Upon which the modest lady colored somewhat, but summing up her usual cheerfulness answered, "I submit." At this expression of confidence, we answered, "Very well, madam; the conditions are, that a picture of the child shall be sent to this office properly named and labelled on each one of its birthdays." Much relieved, the lady retired, and we are looking for an addition to the avalanche which comes to us once each year from various quarters of the country. The last one received was a dear little boy with a nice round chubby face and an intellectual forehead which came to our office a few days ago labelled on the back, "EDWARD L. WILSON, of Illinois." So numerous has this thing become that we can't remember where this young man belongs, and we wish his mother would send us his address, as we have another object besides making a mere collection of namesakes in view. This is not to be considered as an inducement to other mothers to follow suit, but to make those who have already followed suit happy because of the rarity of the privilege!

Editor's Table.

BACK NUMBERS of this Magazine for 1882 can still be had to a limited number, and we would suggest to those who have them not that they should be secured now, which can be done at the yearly rate. Please read page 3 of the cover, and see if you do not want them. We intend to make our own letters from the Orient and Mr. RAU's descriptions of the practical part of our trip more and more valuable as the time goes on. It will be some time before they end and they should all be secured—only a temporary suspension occurs now owing to the press upon our columns by the report of the convention.

THE Photographic Society of Great Britain will hold its Annual Exhibition, beginning October 9th, and continuing until November 16th. Several medals will be placed at the disposal of the judges, for artistic and scientific excellence; three of which are for portrait or figure subjects. The exhibitors may obtain more information concerning the exposition by applying to Mr. EDWIN COCKING, 57 Queen's Road, Peckham, South East, London.

THE POITEVIN SUBSCRIPTION.—We are happy to state that the American subscription to the Poitevin memorial was started at the Indianapolis Convention, with the net result of \$100 contributed by the few members who were present. It is desirable, however, for the honor of America, which owes so much of the useful to the services of M. POITEVIN, that a much larger sum than this should be sent to Paris as the contribution from America, and therefore we once more appeal to our co-workers for help in this direction. We have received from Mr. VIDAL, the Treasurer of the Fund in Paris, subscription papers which we will be glad to supply copies of to those who will undertake to work up subscriptions in the cities wherein they live. At least a sum five times as large as that raised at Indianapolis should be sent for this noble purpose. We hope that we will not be left alone in making the effort to secure that amount. If the dealers, manufacturers, and others in every city will please help us by circulating these subscription papers at once, it will be done.

We have received from Dr. J. M. EDER the

section of the Note Book of Photography which pertains to the photographic objective. We regret that so many of our readers are debarred from reading this excellent work on account of its being in the German language, but perhaps the day may come when there will be encouragement sufficient to republish it in this country; meanwhile, those who can read it can purchase it by applying to the publisher, Mr. WILLIAM KNAPP, Halle, Germany.

ANOTHER SIGH FROM RIP VAN WINKLE.—And now we are scolded again by the enterprising editor of the *Bulletin* for getting ahead of him once more. He had not "get-up 'nough" (to use Mr. President SMITH's words), to be present at the Convention, and look after the interests of his few readers. It would not pay. True, his veteran friend NOAH built the Ark to save eight souls, but Mr. VAN WINKLE would not go so far as Indianapolis to serve his twenty-seven readers. Therefore he depended upon an incompetent reporter and was disappointed again. Then poor "WILSON" has to catch it. We shall have more to say on this anon; meanwhile we challenge Mr. ANTHONY to prove his "\$75" assertion. To give him a start, we pronounce it a fabrication of his own make-up.

MR. C. F. RICE, Chicago, has favored us with his September catalogue. It is "gigantic" in size and contains one hundred illustrated pages.

MR. W. LATHAM, Sedalia, Mo., gets much praise from the local press for the examples of his work shown at the late State Fair.

THE *Southern Amateur*, a monthly journal, devoted to amateur photography, is published by Mr. ARTHUR W. NYCE, 61 N. Charles Street, Baltimore. It is carefully edited and will be found useful, doubtless.

MR. S. G. NIXON, 813 Arch Street, has shown us some letters from his patrons which speak very highly of his work as an artist and are unqualifiedly in praise of his method of finishing. See his advertisement and try him.

MR. J. ALLEN, 335 Eighth Avenue, New York, has sent us some fine child-pictures, which do him credit.

Mr. J. F. EDGEWORTH, Chicago, Ill., sends us an admirable 11x14 group of the members of the P. A. of A., taken at Indianapolis. The details are given in the report. The view is hard to beat.

Mr. A. C. NORTH (late of NORTH & OSWALD), Toledo, O., committed suicide in his studio September 4, by taking cyanide and then putting a bullet in his forehead.

THE PERFECTION OF PHOTO-ENGRAVING.—The advertisement of the MOSS ENGRAVING COMPANY, 535 Pearl Street, New York, which appears in our present issue, is a wonderful example of work accomplished by one of the industries of photography. No graver's tool could possibly produce such delicacy of line and softness of light and shade as are secured by the Moss process. It will bear the closest criticism. Photographers could secure a great deal of such work from their patrons if they would, and have it done by our New York friends for them. Their process is secret and not for sale. Read the circular and directions.

THE "Winding Stream" is the title of a very sweet piece of music published by LEE & WALKER, of this city, and composed by Mr. JOHN R. CLEMONS, Jr. (the talented son of our old friend the manufacturer of albumen paper, so well known to the fraternity), who is an accomplished musician. Those of our patrons who are interested in music would do well to procure this beautiful and sweet piece, and so encourage the young composer whose name we have mentioned.

MESSRS. BOYD & Co., Sydney, Australia, are the principal stock importers in that section of the country, and although it is so great a distance away, they have not forgotten the *Philadelphia Photographer*. We send them eighteen copies monthly, with the assurance in the last letter that they trusted shortly to further increase their order, as the work is surely establishing itself in the Australian Colonies. Advertisers will please take notice.

ITEMS OF NEWS.—Mr. A. F. BURNHAM, Faribault, Minnesota, has returned to his home after a sojourn of several months in New Mexico, with his health so much improved that he is about to occupy new quarters built for him especially, and to engage in business actively again. Mr. BURNHAM writes us this good news, and says at the close of his letter: "My first

purchase will be the *Philadelphia Photographer*, which you will please forward at once, commencing with last January.

"THE ART OF MAKING PORTRAITS IN CRAYON ON SOLAR ENLARGEMENTS" is the title of a little fifty cent book of instructions, published by Mr. E. LONG, Quincy, Illinois. The title fully explains the nature of the work, which seems to be written by a practical artist, and to be of great value to those who need the instruction it gives. It can be had by enclosing the price to the publisher.

A FINE WORK OF ART.—Among the exquisite things we have seen in the way of colored photographs, was shown us recently by Messrs. BROADBENT & TAYLOR, a 16x20 portrait of General E. B. GRUBB, Captain of the City Troop of Philadelphia, representing the distinguished soldier upon his horse and in uniform. Even when photography can only be a basis of such a work of art as this, it is a cheerful sign of the times, and we are glad to have the opportunity to call attention to it.

THE report of Treasurer BEEBE, of the Photographers' Association of America, has been received by us, but is crowded out. It will be "properly given to the public" in our next.

WILSON'S PHOTOGRAPHICS is meeting with a most gratifying sale, and testimonials as to its value come in continually. It is the *best* photo hand-book there is for amateur and professional photographers. As a holiday present to an employee it is unequalled, and always pay back.

PHOTOGRAPHIC MOSAICS, 1883; A CARD OF INVITATION.—We have our little Annual in preparation actively, and this is to invite all old contributors, and as many as are willing, to send us an article for *Mosaics* for the coming year. It is our desire always that this little book should embody the thought of our whole country on the various topics which come in practice, especially with those which have occurred to them within the past year. We therefore invite all who feel that they have something to communicate that will serve somebody not so well skilled or informed, to send us their contributions, clothed in as few practical words as expedient, soon. We desire that the issue shall be made as early as possible in the fall. Please do not wait for any other invitation, but let us hear from you now.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.



EVERY photographer doing stylish work should have my latest great success,

THE PONY BASKET PHAETON.

PRICE, \$20.

Send for sample prints showing figures posed.

THE COTTAGE DORMER WINDOW,
(Exterior and interior) \$30.

Sample prints show subject posed.

Now is the time to order Winter Back-grounds.

L. W. SEAVEY,
8 Lafayette Place, New York.

FOR SALE.—Photograph gallery. Receipts have averaged from \$8,000 to \$11,000 per year for ten years past. Reasons for selling, party desires to retire from business. Address

P. SMITH & Co., Stock-dealers,
Cincinnati, O.

FOR SALE AT A BARGAIN.—Any one wishing a good, established trade, will do well to come and see my rooms. I am obliged to sell on account of my health. Part cash balance can be made out of the business. Receipts between \$3,500 to \$4,000 per year.

STACEY'S PHOTO. PARLORS,
Lockport, N. Y.

WANTED.—Retoucher. Lady preferred. To a good person a permanent situation and good salary. Enclose photograph of self and sample of work. "PHOTO,"
Care of Lyon & Alexander, Toronto, Canada.

BACKGROUNDS PAINTED

BY

→* W. F. ASHE *←

Are found in most of the best galleries, not only in the States, but abroad.

NEW BACKGROUNDS AND ACCESSORIES

OF ALL KINDS ARE

BEING CONSTANTLY INTRODUCED.

W. F. ASHE, *Scenic Artist,*

106 Bleecker St., New York,

U. S. A.

WANTED.—A first-class retoucher and printer. Address
MOSES, Photographer,
New Orleans, La.

DESIROUS of obtaining a proper chair for my studio use, I was obliged to buy a whole suite of parlor furniture, very pretty and appropriate. I have the following pieces for sale: two arm-chairs, for standing or seated figures, each \$25; three posing-chairs, each \$15; one sofa for groups, \$35. Photographs sent on receipt of stamp. Address

"GOOD ART," care *Phila. Photo.*,
914 Chestnut St., Phila.

Wilson's Photographics. Ready.
Price, \$4.00.

WANTED.—Good printer and good assistant. Will pay good wages and give steady work to right kind of party. Don't apply for the situation unless you are a first-class workman. Address
J. C. SOMERVILLE,
1009 Olive St., St. Louis, Mo.

St. Louis, September 12, 1882.

To the former Patrons of the "Practical Photographer:"

The undersigned, widow of the late John H. Fitzgibbon, most respectfully informs the former patrons of and subscribers to the *Practical Photographer*, that she has not now, nor has she had, any connection whatever with that magazine since the death of her husband on the 12th of August last, and that all remittances sent to her late husband or to the *Practical*, have been taken possession of by the executors of the estate, Messrs. Frank W. Peebles and William A. Cranch, who alone are responsible for all remittances sent in since the 12th of August.

The undersigned makes this statement both in justice to herself and to the many kind friends of herself and deceased husband who have already made advance payments, and who may, if not thus warned, continue to do so.

The *Practical Photographer*, together with all matters connected with the same, has been taken from her, and its last number has probably been issued.

Thanking the many friends who have been so liberally kind to both me and my dead husband, and regretting that the law and the executors have deprived me of the right and power to succeed my late husband in the publication of the journal so popular with all, I am, with kindest wishes and heartfelt thanks to you all,

Yours, most truly,

MARIA L. FITZGIBBON.

WANTED.—An operator to make negatives for photo-mechanical processes. One who can do first-class work and take charge of the negative department. Address ENGRAVER,
Care of E. L. Wilson.

WANTED.—A first-class negative retoucher. Address WILSON, HOOD & CO.,
325 Arch Street, Phila.

WANTED.—An operator who can retouch and print. Address H. G. WHITE,
Monroe, Green Co., Wis.

WANTED.—Immediately, a first-class retoucher and printer. Must be strictly temperate, and have good references. No Sunday work. Send samples of work, and state wages required.

ELMER & TENNEY, Winona, Minn.

FOR SALE CHEAP.—A lot of Accessories and Grounds. CHANDLER & SCHEETZ,
328 Arch Street, Phila.

No. 18. VIGNETTE **No. 18.**
PAPERS,
WAYMOUTH'S.

The old form of No. 18, Waymouth's Vignette Papers, oval, has been discarded, and a *new pear-shaped* style is now ready in its place. It is a beautiful piece of gradation and prints perfectly. Price \$1.25 per dozen. For sale by all dealers. See advertisement.

No. 18. NOW READY. **No. 18.**



WILSON'S PHOTOGRAPHICS

Shows you how to group and pose children naturally and gives fine examples of work. Read the partial index herein. \$4.

THE PLAQUE PHOTOGRAPH, PATENTED.—Photographers desiring a novelty to raise prices on, and something very attractive to the public, will please investigate the Plaque. Address
F. B. CLENCH,
Lockport, N. Y.

WANTED.—Two first-class retouchers who can operate, and a first-class printer. Send samples of work and photograph of self, and state wages expected. Also one India-ink crayon and water-color-artist.
G. C. URLIN,
216 and 218 S. High St., Columbus, O.

I WANT to exchange or buy Seavey interior backgrounds and posing-chairs. Send samples to
FRANK ROBBINS,
Oil City, Pa.

WANTED.—A first-class retoucher and printer. To the right man I will give good wages and permanent situation. Any one knowing themselves to be able to fill the above requirements, will please address,
JOHN G. HATHAWAY,
Portsmouth, Ohio.

IVES' NEW LIME-LIGHT.—Wm. A. Anthony, Professor of Physics at Cornell University, after testing this new light in comparison with the best form of oxy-hydrogen, using jets exactly alike, says, "*with the same pressure of oxygen, the light is better. . . In the qualities of steadiness, freedom from noise, etc., it is certainly equal to any lime-light, and in convenience of manipulation, especially for a travelling exhibition, it is far superior to oxy-hydrogen.*" All who use the lime-light, and all who expect to use it, please send for descriptive circular.

F. E. IVES,
702 Chestnut St., Phila., Pa.

The editor of a quarterly publication which claims to be "devoted to the interests of those who use the magic lantern," attempted to criticise Ives' patent lime-light before he knew much about it, and made statements which are not only incorrect, but calculated to create an unjust prejudice against the new light. These criticisms may have been fairly intended, but there can be no excuse for such misrepresentations, and the fact that some dealers appear disposed to create an unfavorable prejudice because they can make greater profits on the sale of old-fashioned and cumbersome apparatus, is sufficient excuse for this caution to the public. *Ives' patent lime-light certainly possesses every advantage which is claimed for it, and will give much better satisfaction than oxy-hydrogen where economy of space and apparatus is important.* These facts are sure to become known, in spite of any efforts which may be made to create a contrary impression.

EGYPTIAN CHEMICAL COLORS.—Triple strength. Manufactured expressly for painting photographs, views, etc., also used in connection with the Egyptian transparent compound, for producing the Egyptian crystal photograph, the most life-like picture in the world. All photographs colored on the face of the picture and mounted on convex or flat glass, are done with these colors, under whatever name the picture may be called. These colors are put up in polished wooden boxes, labelled "Egyptian chemical colors." Each box contains the following colors: Transparent black, dark emerald green, orange or gold color, blue, dark brown, light green, rose, violet, and flesh. For sale by all stock-dealers and dealers in artists' materials.

MAKE YOUR OWN ENLARGEMENTS.—The Patent Gem Solar Camera will print the finest enlargements on albumen, platinum, or plain paper. Only \$60. Send for reduced price-lists of arger instruments. D. A. WOODWARD,
Baltimore, Md.

FOR SALE.—I respectfully invite the attention of photographic operators that I have for sale, cheap, a first-class photographic gallery (formerly advertised for \$3,000), which I now offer for \$1,200; situated by two railroads—the Michigan Central and a branch of the Michigan Southern. Six thousand inhabitants. A beautiful, healthy inland town. Contains the Michigan State Normal School. A rich and extensive farming country. Have been in this gallery about seventeen years, and in the business about twenty, but failing eyesight calls for a change. There are only two other galleries here. A good chance for a man of ability.

MRS. J. H. PARSONS,
Post Block, Huron St., Ypsilanti, Mich.

PHOTOGRAPHS finished in ink and water color on plain or albumen paper.

MARY B. ATKINSON,
215 Spruce St., Phila.



WILSON'S PHOTOGRAPHICS

Is the most complete, thorough, photo-instruction book ever published. Third thousand in store. See advertisements. \$4.

PHOTOGRAPHERS AND DEALERS, ATTENTION.—Thirty assorted artistic views of Washington for \$2.00.

RANALD DOUGLAS,
819 Market Space, Washington, D. C.

WANTED IMMEDIATELY,

A FIRST-CLASS RETOUCHER.

No other need apply. Situation permanent.

LACEY,
Indianapolis, Indiana.

ADDRESS THOMAS POWERS, 392 Bowery, New York City, Secretary of Association of Operative Photographers of New York, for operators, printers, and retouchers.

THE NEW
EURYSCOPE.

Try this new lens, and you will never buy any large portrait lenses. Voigtlander & Son's No. 7, and the smaller sizes, are very quick-acting, but as regards large-sized plates, the Eury-scopes are far superior for groups, panel pictures, and large heads.

S. G. NIXON, Portrait Artist, 813 Arch Street, Philadelphia, Pa. Solar enlargements finished in crayon, water color, and Indian-ink in true artistic style, and the likeness and expression faithfully preserved. Also small colored and Indian-ink work, etc. Terms moderate.

NOTICE.

THE WONDERFUL EURYSCOPES AND NEW PORTRAIT LENSES.

Just received, a large invoice of the above Lenses. Those who have not succeeded in getting them, will do well to send in their orders at once.

BENJAMIN FRENCH & Co.,
Boston.

NOTICE OF REMOVAL.—Mrs. Clarke, Artist, late of 561 Druid Hill Avenue, Baltimore, begs to inform her friends and the photographic profession that she has removed to 2104 North 20th St., Philadelphia, Pa., where she will be happy to receive any commission for water-color painting. Terms, etc., on application to Mrs. Clarke, or to the office of the *Philadelphia Photographer*.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

A first-rate retoucher, printer and toner, and water-color artist wants a position. Address, 975 West Ave., Buffalo, N. Y.

A young man, thoroughly acquainted with photography, desires work at copying, under the skylight, or viewing. Salary, \$15 per week. Address, Chas. La Tour, Harrisburg P. O., Pa.

Situation by a first-class operator, who works dry plates successfully. Will send samples of my work, which will speak for itself, to those who are willing to pay for value received. Address, Photographer, Box 471, Port Huron, Mich.

Situation wanted by an experienced photographer. Is a good retoucher, and understands dry plates. W. A. Townsend, Fayetteville, Onondaga Co., New York.

Situation as printer and toner, assistant operator or photographer in a Photo. Eng. Co. Photo-engraving preferred. J. W. Buttus, Jr., 147 Columbia St., Cambridgeport, Mass.

A good operator, printer, toner, retoucher, and ferrotyper wants a steady situation. Address, Photographer, care of Mr. Mukes, 302 E. 11th St., New York.

A man who fully understands the working of gelatine plates, and all the details of their manufacture, is open to an engagement. Address, E. Frost, 22 Concord St., Manchester, N. H.

Steady situation wanted by a first-class water-color artist. Good reference given if required. Address, Portrait Artist, 305 S. 39th St., Philadelphia, Pa.

A young lady would like to assist a first-class retoucher for improvement; would also be willing to make herself useful in photograph rooms. Address, Lena Little, Gen. Delivery, Rochester, N. Y.

By a young lady of three years' experience, a situation in a photograph gallery. Can furnish the best of reference. Address Photographer, 27 Columbia St., Utica, N. Y.

A young man, strictly temperate, would like a situation in a gallery as a general assistant. Can come well recommended. For terms, address, F. E. Brown, Box 113, Batavia, New York.

An English photographer, having a thorough knowledge of photo-lithography; at present, and for the last eight years, making transfers for an English architectural journal, is desirous of obtaining a similar position in any part of America. Advertiser is also a good general photographer. Address A. Borland, Photographer, Wilmslow, Cheshire, England.



J. L. CLARK,
GOLD AND SILVER REFINER,
ASSAYER AND SWEEP-SMELTER,
REMOVED TO
823 Filbert St., Philadelphia, Pa.

RETURNS MADE IN STRICTLY PURE CHEMICALS.

REFERS TO, BY PERMISSION:

JOHN CARBUTT, Dry Plate Manufacturer, Philada.

WM. H. RHOADS, Photographer and Artist, Philada.

GILBERT & BACON, Photographers and Artists, Philada.

WM. H. CLIFFORD, Photographer and Artist, Philada.

1882.

Photographers'
Booksellers,
Stationers,
and
Newsdealers
Publishers of
Hints on Burnishing
Photographs,
AND THE
Photographers' Monthly
Bureau of Information



1882.

We are
MERCHANTS
in
ALL REQUISITES
PERTAINING
to the
ART-SCIENCE
of
PHOTOGRAPHY.

Douglass, Thompson & Co.

Nos. 229 & 231 State Street,

GAYTON A. DOUGLASS.
HENRY G. THOMPSON.

CHICAGO.

GELATINE BROMIDE DRY PLATE.

Beebe's, Cramer & Norden's, Eastman's, Carbutt's.

Outfits, and everything used in Dry Plate work.



We invite cash trade, believing it for the best interests of all parties to adopt the pay as you go system.

With us, cash with order, or on C. O. D. purchases, insures a discount of **5 PER CENT**, deducted from bill, in addition to the very low prices we offer.

A practical knowledge of the Art-Science of Photography gives us a special advantage in meeting all demands.

Our Warerooms are commodious, located conveniently for business, our stock ample for all usual demands, fresh, carefully selected, and we can sell at prices satisfactory to the consumer. **We deal in nothing but supplies for Photography**, devoting our whole time and energies to the wants of our patrons, thus offering a special advantage to such who appreciate care and attention. We study promptness in meeting all favors entrusted to us, and guarantee exactness.

MALLINCKRODT CHEMICAL WORKS,

Successors to G. MALLINCKRODT & CO.,

ST. LOUIS, MO.,

MANUFACTURE A FULL LINE OF

Pure Photographic Chemicals,

AMONG THEM

PURE ACETIC ACID; CONCENTRATED AMMONIA; IODINE, Resublimed; CYANIDE OF POTASSIUM; PYROGALLIC ACID, Resublimed and very pure; IODIDE AND BROMIDE OF AMMONIUM, CADMIUM, CALCIUM, &c.; SULPHURIC ETHER, highest concentration, free from Acid and absolutely pure; CHLORIDE OF GOLD CRYSTALS, extra dry and free from excess of Acid; NITRATE OF SILVER CRYSTALS, dry, neutral, and absolutely pure; CHLORIDE OF GOLD and SODIUM; NEUTRAL OXALATE OF POTASSIUM.

We ask the attention of Photographers to the superior quality of our Chemicals, and request a trial of them. Special inducements to dealers and large purchasers.

Specify "MALLINCKRODT'S" when ordering from Stock-Dealers.

NEIDHARDT'S GELATINE DRY PLATES.

GUARANTEED EQUAL TO ANY IN THE MARKET.

The magnificent display of pictures made on these plates by various photographers at the INDIANAPOLIS CONVENTION last month, convinced all who saw them that the

"NEIDHARDT PLATE CAN'T BE BEATEN."

FORMULA FOR WORKING THEM, FREE.

TRY OUR "NEW" DEVELOPER.**PRICES OF NEIDHARDT'S PLATES.**

Size.	Per doz.	Size.	Per doz.
3½ x 4¼	\$0 65	6½ x 8½	\$2 40
4 x 5	95	8 x 10	3 60
4½ x 5½	1 00	10 x 12	5 20
4¼ x 6½	1 25	11 x 14	6 80
5 x 6	1 35	14 x 17	10 00
5 x	1 65	17 x 20	17 50
5½ x 7	1 75	18 x 22	20 00
5 x 8	1 85	20 x 24	24 00

11 x 14 and larger packed in boxes containing half-dozen.

MANUFACTURED BY THE

GARDEN CITY DRY PLATE COMPANY,

No. 361 Milwaukee Avenue, Chicago.

Order from your stock-dealer; if they can't supply you, apply to us.

OUR OLD STORE

Has become too small to hold us. We have secured the large well-lighted ground-floor room

No. 327,

FIVE DOORS WEST OF OUR OLD LOCATION,

where we are going to have just about the handsomest stock depot this side of Chicago.

It is worth coming a long distance to see.

GIVE US A CALL,

For we have the goods you want, and the place to show them.

W. D. GATCHEL & CO.,

No. 327 West Jefferson Street, Louisville, Ky.

FRANCIS HENDRICKS,

DEALER IN

PHOTOGRAPHIC SUPPLIES,

Artists' Materials, Frames, Mouldings, Mirrors, Etc.,

HENDRICKS' BUILDING, SYRACUSE, N. Y.

PRICE LISTS FURNISHED ON APPLICATION.

ALBERT MOORE THE SOLAR ENLARGER,

THE LONGEST, LARGEST, AND BEST.

828 Wood Street, Philadelphia.

DEALERS' DIRECTORY.

The following houses are to be recommended as the best for photographers in their localities.

S. T. BLESSING, New Orleans, La.	Douglass, Thompson & Co. "Great Central," Chicago, - - - Ill.	JAMES H. SMITH, Quincy, Ill.
H. A. HYATT, Mound City Photo. Stock House, 411 North Fourth St., St. Louis, Mo.	D. J. RYAN, Savannah, Ga.	J. C. SOMERVILLE, St. Louis, Mo.
SCOVILL MANF'G CO., 419 & 421 Broome St., New York.	D. TUCKER & CO., Buffalo, N. Y.	BLESSING & BRO., Galveston, Texas.
C. H. CODMAN & CO. Boston, Mass.	WILSON, HOOD & CO., 825 Arch Street, Philadelphia, Pa.	B. FRENCH & CO. Boston, Mass.
WM. J. HAZENSTAB, 406 Market St., St. Louis, Mo.	EDWARD L. WILSON, Photo. Publisher, LANTERN SLIDES, 912 & 914 Chestnut St., Philadelphia.	THEO. SCHUMANN, Atlanta, Ga.
OSCAR FOSS, San Francisco, Cal.	G. B O D E, Milwaukee, Wisconsin.	JORDAN & SHEEN, Cincinnati, Ohio.

GET THE BEST!

CRAMER & NORDEN'S
ST. LOUIS
EXTRA-RAPID DRY PLATES.

WARRANTED PERFECT,

With Latest Formulas and Complete Directions for Use.

FOR SALE BY

G. GENNERT, 105 William Street,
 New York, General Eastern Agent.
 SCOVILL MFG. CO., 419 Broome
 Street, New York.
 ALLEN BROS., Detroit, Mich.
 H. C. FRANTZ, Toledo, Ohio.
 E. J. WECKS, Jackson, Mich.
 JOHN I. SHAW, Pittsburg, Pa.
 DAVID TUCKER & CO., Buffalo,
 N. Y.
 H. D. MARKS, Rochester, N. Y.
 I. N. McDONALD, Albany, N. Y.
 THOS. H. McCOLLIN, Philadelphia,
 Pa.
 WOLF & CHEYNEY, Philadelphia,
 Pa.
 WILSON, HOOD & CO., Philadel-
 phia, Pa.
 RICHARD WALZL, Baltimore, Md.
 BACHRACH BROS., Baltimore, Md.
 JAMES LETT, Harrisburg, Pa.
 BENJ. FRENCH & CO., Boston,
 Mass.
 C. H. CODMAN & CO., Boston,
 BLESSING BROTHERS., Galves-
 ton, Texas.
 S. T. BLESSING, New Orleans, La.
 THEO. SCHUMANN, Atlanta, Ga.
 W. G. ROBINSON, Atlanta, Ga.
 J. H. KIRK, Wheeling, W. Va.
 J. D. DEXTER, Portland, Me.
 GEO. R. ANGELL, Detroit, Mich.

GUSTAV BODE, Milwaukee, Wis.
 WM. S. CONNER, Pittsburg, Pa.
 DOUGLASS, THOMPSON & CO.,
 Chicago.
 HIRAM J. THOMPSON, Chicago.
 N. C. THAYER & CO., Chicago.
 C. F. RICE, Chicago.
 J. V. ESCOTT & SONS, Louisville,
 Ky.
 W. D. GATCHEL & CO., Louisville,
 Ky.
 W. J. HAZENSTAB, St. Louis.
 H. A. HYATT, St. Louis.
 J. C. SOMERVILLE, St. Louis.
 J. F. INDERMILL, St. Joseph, Mo.
 JORDAN & SHEEN, Cincinnati, O.
 P. SMITH & CO., Cincinnati, O.
 P. SMITH & CO., Columbus, O.
 H. LIEBER & CO., Indianapolis, Ind.
 A. BLACK & CO., Indianapolis, Ind.
 MULLETT BROS., Kansas City, Mo.
 JAS. H. SMITH, Quincy, Ill.
 SARGENT & CO., Cleveland, O.
 JOHN E. TEAL, Cleveland, O.
 ZIMMERMAN & BROS., St. Paul,
 Minn.
 McINTYRE & CO., London, Ont.
 PECK BROS., Grand Rapids, Mich.
 SAM'L PARTRIDGE, San Francisco,
 Cal.
 GEO. W. SITTLER, Springfield, Mo.
 G. MOSES, New Orleans, La.

HEARN'S STUDIES

IN

Artistic Printing.

By C. W. HEARN, Author of the "Practical Printer."

SIX FINE CABINET AND PROMENADE PORTRAIT STUDIES.

AMONG OTHER THINGS IT CONTAINS.

Suggestions on the Choice of Albumen Paper—All the Best Silvering Baths, and Methods of treating the same—New Views on the Relation of the Silver Bath to the Time of Floating—The Different Effects Caused by the Time of Floating—How to Tell when Paper is Floated too Long or too Short a Time—Table for Time of Floating Paper under all Circumstances—The Importance of Care in Printing in Varied Ways—The Important Relation Printing from the Negative Bears to the Toning Bath—Fast Printing—Dialogue between "Joe" and a Friend—The Way to Success in Toning Lies in Printing—The Different Effects Caused in Printing by the Preparation of the Silver Bath—The Relation of the Silver Bath to the Printing from the Negative, and from this to the Toning Bath—Acetate of Silver—Success or Failure in Toning Caused by the Strength, Purity, and Alkalinity of the Silver Bath—*Harmony*, its Importance in Photography—Why its Neglect Causes such Disastrous Results—The Beautiful in Toning, and How to Obtain it—A Few Hints About Managing Toning Baths—Formulæ for Printing "Our Studies," as Given under Respective Headings—Impurities of Toning Baths—How it Affects the Toning, and How to Remedy such Baths—Fixing and Washing—Brilliance of the Finished Picture Attained by the Final Washing—Various and Valuable Hints about Finishing the Photographs, etc., etc.

Mailed to any address on receipt of price, \$3.50, by any stock-dealer, or by

EDWARD L. WILSON, Photo. Publisher,

912 & 914 CHESTNUT STREET, PHILADA

SOLD BY ALL DEALERS. ASK TO SEE IT.

SINGHI'S

VIGNETTING ATTACHMENT

FOR PRINTING FRAMES.

To be used with WAYMOUTH'S VIGNETTE PAPERS.

(Patent Applied for.)

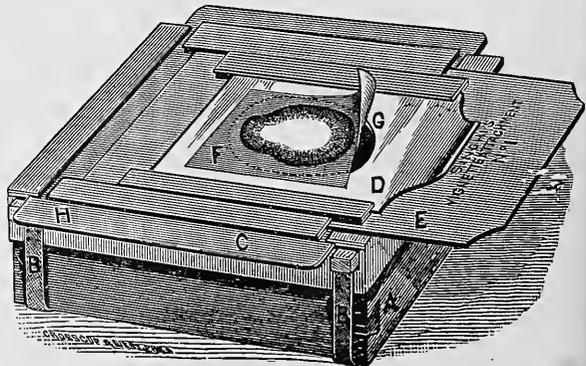
J. F. SINGHI, Inventor.

The best arrangement for adjusting these best of vignetting appliances in the world.

5x8 size now ready.

Price, by mail, \$1.50.

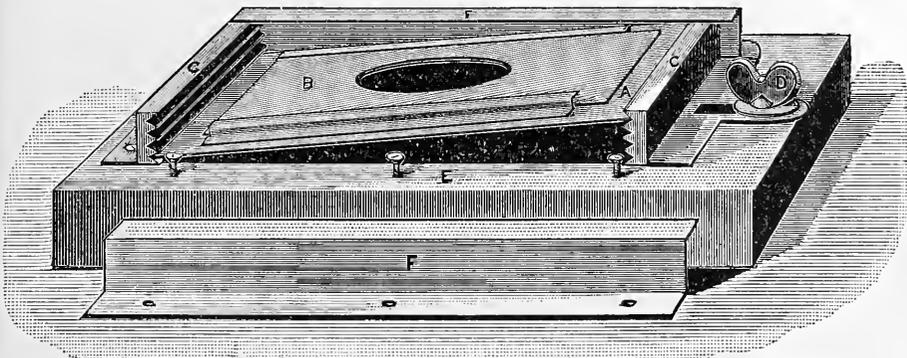
See description in this Magazine, June, 1881, or in *Wilson's Photographics*.



FOR SALE BY ALL DEALERS.

McDONALD'S METALLIC VIGNETTER.

PATENT APPLIED FOR.



THE GREATEST LABOR-SAVING INVENTION OF THE AGE.

The Latest and Best Attachment ever offered to the Fraternity. Easily attached to ordinary Printing Frames. Can be changed to thirty different positions—any one of them in from three to five seconds. Will save your printer nine-tenths of his time in setting his vignettes. The finest and most difficult effects can be produced as easy as the most simple. The card-board slides can be cut any desired shape or size. No Photographer can afford to be without them, for they will save TIME, LABOR, MONEY, and REPUTATION for producing FINE WORK. ORDER A SAMPLE.

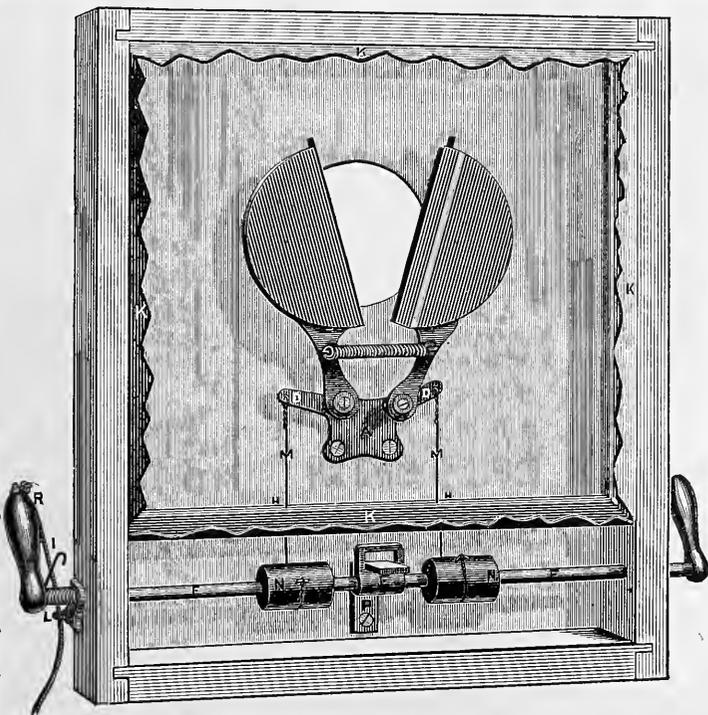
PRICE LIST.

For $\frac{1}{2}$ size Frame.....	per doz. \$6.00	For 5 x 8 size Frame.....	per doz. \$7.50
“ $\frac{1}{2}$ “ “	“ 7.50	“ $6\frac{1}{2}$ x 8 “	“ 9.00
“ $4\frac{1}{2}$ x $6\frac{1}{2}$ “	“ 7.50	“ 8 x 10 “	“ 9.00
“ 5 x 7 “	“ 7.50		

NOTE.—The 5 x 8 size is now ready; other sizes will be ready in a few days. $4\frac{1}{4}$ x $5\frac{1}{2}$ and $4\frac{1}{2}$ x $6\frac{1}{2}$ Vignettes are same size. 5 x 7 and 5 x 8 are same.

McDONALD'S IMPROVED PHOTOGRAPHIC SHUTTER.

This Common Sense has been lately improved, and is now without question the best in the market. Can't get out of order; can be depended on in every instance for a clear, quick exposure. Does not create dust in the camera; can be left open while focusing; can be operated from any part of the room; can be attached to any 8 x 10 camera-box in a few minutes. They are now in use by HUNDREDS OF FIRST-CLASS PHOTOGRAPHERS. Use one a week, and you would not part with it.



8 x 10 box size, each.....\$5 00
 Odd sizes, to order.....6 50
FOR SALE BY ALL DEALERS.

[Above cut shows the Shutter INSIDE of the Camera Box.]

HIRAM J. THOMPSON, 84 Wabash Avenue, Chicago.

NEW DRESDEN
 EXTRA  BRILLIANT
 ALBUMEN PAPER
 WHITE, PINK, PENSÉ.

FREE from BLISTERS and IMPERFECTIONS.

TESTIMONIALS.

MILWAUKEE, October 11th, 1881.

G. GENNERT, Esq.,
 New York.

DEAR SIR: The paper works lovely, and is a
 Godsend to the photographers.

Very truly, HARRY SUTTER.

Mr. G. GENNERT.

DEAR SIR: One ream Extra Brilliant Eagle
 pink received and tried; my printers say it is the
 best they have had for years; it keeps perfectly
 white, which is one of the greatest features for us
 in St. Louis. It prints and tones fine. I am
 satisfied with the beautiful prints I've received for
 the past week, which is something, you know, I
 am hard to be pleased with. Keep it up, and
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Yours truly, J. A. SCHOLTEN.

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CONTENTS.

Printing Intense Negatives.
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A Few More Remarks about Printing--Treatment of Broken Negatives.
Cutting the Prints.
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Acidifying the Prints.
Toning Baths.
Artistic Toning.
Fixing Baths and Fixing Prints.
Washing the Prints.
Mounting the Prints.
Finishing the Prints.
Salting the Paper. [Paper.
Positive Baths for Plain Salted Silvering Plain Salted Paper.
Drying, Fuming, and Cutting the Paper. [Printing.
Treatment of the Negatives before Printing-in False Backgrounds.
General Plain Paper Printing.

Waymouth's Vignette Papers.
Further Treatment of the Prints after Printing.
Causes of Failures in Albumen and Plain Paper Printing.
Selection of the Porcelain Plates.
Cleaning the Porcelain Plates.
Albumenizing the Porcelain Plate Making the Porcelain Collodion.
Coating, Fuming, and Drying the Plates.
Porcelain Printing-boards.
Placing the Sensitive Plate on the Board for Printing.
Printing Vignette Porcelains.
Printing Medallion Porcelains.
Washing the Porcelains.
Toning the Porcelains.
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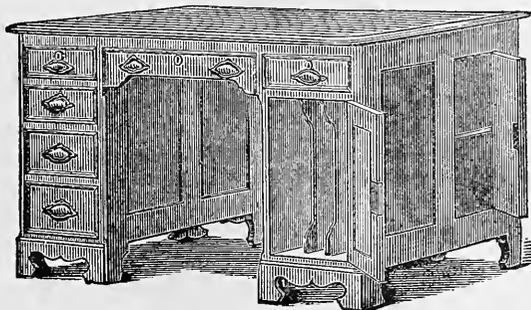
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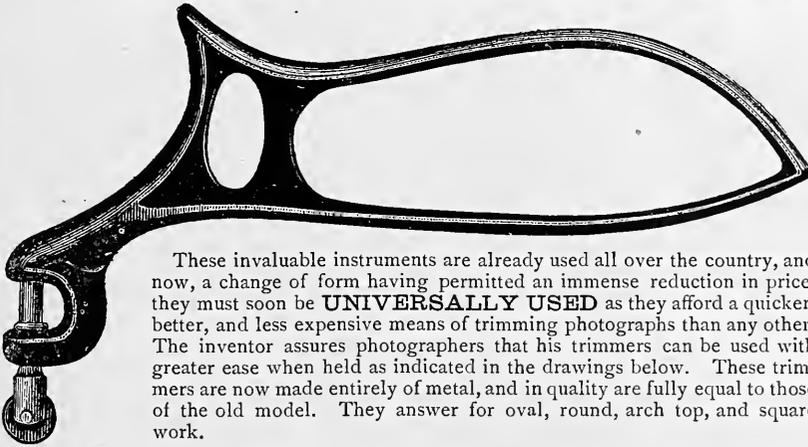
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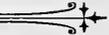
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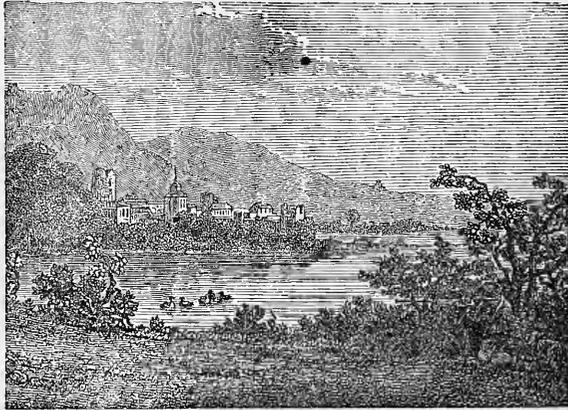
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- XIII. The Composition of the Figure.
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- XVI. Variety and Repetition (continued)—Repose—Fitness.

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- XVII. Portraiture.
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- XIX. Portraiture—The Pose.
- XX. Portraiture—Groups—Proportion.
- XXI. Backgrounds.
- XXII. Accessories.
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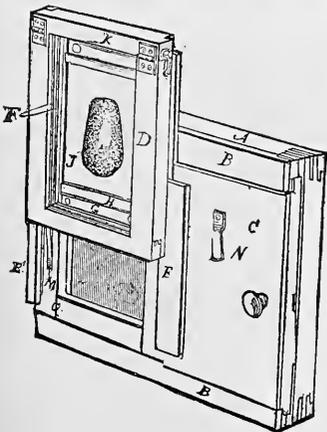
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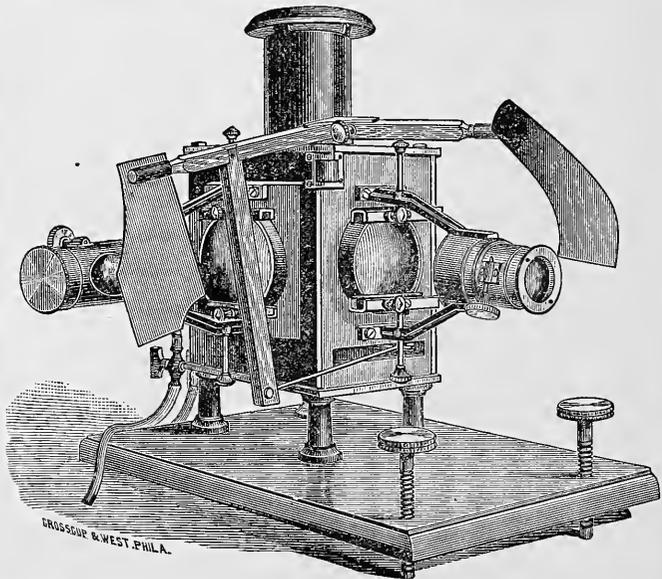
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(i)

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(iii)

advertisement, and yet cost you little or nothing. *The four pages of the cover are yours, to use for what you please.* You only need the first page for yourself. Get advertisements from your neighbors, at a proportionate figure, for the rest, and your leaflets cost you only the expense of distribution.

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(ii)

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(iv)

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1882.

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OF THE

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SUMMARY OF CONTENTS.

	PAGE		PAGE
Our Picture,	321	The Indianapolis Convention,	336
Utilizing a Frilled Negative,	324	Photographers' Association of America,	337
How to Make any Dry-Plate "Tropical." By D. BACHRACH, JR.,	324	The Analogy between Sound and Color,	338
Dry-Plate Gush. By R. D. CHAPMAN,	325	The Coming Transit of Venus. By Wm. BELL,	340
A Useful Reflector. By JAY DENSMORE,	327	Photographic Experiences in the East. By W. H. RAU,	342
Photographic Chips. By INQUIRER,	327	The Plaque,	344
Ebers' Egypt,	328	Society Gossip,	345
Knight's New American Mechanical Dictionary,	330	How They Do Things in the French Societies,	346
German Correspondence. By DR. H. W. VOGEL,	332	Bibliographic,	346
French Correspondence. By LEON VIDAL,	334	Editor's Table,	347

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INDEX PAGE FROM WILSON'S PHOTOGRAPHICS.

- Intensifier, The.
 Ammonia and Mercury.
 Bichloride of Mercury.
 Ferrid Cyanide.
 Iron and Acid.
 Perchloride of Iron.
 Permanganate of Potash.
 Pyrogallie Acid.
 Schlippe's Salts.
 Silver and Acid.
 Interior Work.
 Kaolin, Rectifying Printing-Bath with.
 Landscape Apparatus.
 Photography.
 Views, Formula for.
 Lantern Slides and Enlargements.
 Leaking of the Glass Studio.
 Lens or Objective, The.
 Lenses, Angle of View Possible with.
 Choice of.
 Forms of.
 Light and Accessories.
 and Shade, or Chiaro-Oscuro.
 Reflected.
 Lighting, Rembrandt's Style of.
 "Lightning" Processes.
 Linen, Printing on.
 Lubricating the Prints.
 Managing the Model.
 Manipulations, The.
 Manipulatory Miseries.
 Marbled Appearance of the Paper.
 Red Lines on Prints.
 Mealiness in Prints.
 Measles or Mottles on Prints.
 Measuring, Metrical.
 Medallion Printing.
 "Megatypes."
 Metallic Spots in Prints.
 Model, Study the.
 Mounting and Finishing.
 Paste.
 without Cockling.
 Nature, Study.
 Negative, A Generally Wretched.
 Negatives, Black and White.
 Defects in.
 "Doctoring" for Printing.
 for Solar Printing.
 Preserving of.
 Printing Dense.
 Printing Weak.
 Removing Stains from.
 Network, Formation on the Film of.
 Objective or Lens, The.
 Objects, Distances of.
 Only Lines in Negatives.
 Opaque for Negatives, Gihon's.
 Outside Photography.
 Chemistry of.
 Work, Art Principles in.
 Work, Exposure.
 Over-Exposure of Bromo-Gelatine Plates.
 Paper, Cockling of the.
 Drying the.
 Expansion and Contraction of.
 Fuming the.
 Keeping White the.
 Marbled Appearance of the.
 Sensitizing the.
 Woolliness of the.
 Perspective.
 Photography, Landscape.
 Phototypes, Basis for.
 Exposure of the Negatives for.
 Husnik's Substratum for the Plates for.
 Inking the Films for Printing.
 Plain Paper, Printing on.
 Platinotypes, Sensitizing the Paper for.
 Cleaning and Washing.
 Development of.
 Exposure of the Paper.
 Porcelain, Printing on.
 Posing, Suggestions about.
 Preserving Negatives.
 Printing, Art in.
 by the Solar Camera.
 Dense Negatives.
 Development Process of.
 Flat Negatives.
 Medallions.
 on Albumen Paper.
 on Various Surfaces.
 Stereoscopic Views.
 Temperature in.
 Vignettes.
 Weak Negatives.
 Printing-Bath, The.
 Decolorizing the.
 Strengthening the.
 Printing-Room, The.
 Prints, Acidifying the.
 Blistering of the.
 Burnishing the.
 Defectively Toned.
 Drying the.
 Encaustic Paste for.
 Fading of the.
 Fixing.
 Glace.
 Imperfect Washing of the.
 Lubricating.
 Measled or Mottled.
 Metallic Spots in.
 Refuse to Tone.
 "Spotting" the.
 Touching Out.
 Treatment with Alum of the.
 Trimming.
 Warm-Water Washing of.
 Washing in "Lead Water."
 Washing the.
 With Red Marbled Lines.
 Yellowness of the.
 Productions of Photography, The.
 Public, Relation of the Photographer to the.
 Pure Whites in Prints.
 Red Patches on Prints.
 Reducing Process for Solar Negatives.
 Reinforcing the Negatives.
 Rembrandt's Style of Lighting.
 Removing Stains from Negatives.
 Retouching Bromo-Gelatine Plates.
 Process, Solar Negative.
 Robinson's Print Trimmer.
 Screens and Curtains.
 Sensitizing Paper for Platinotypes.
 the Paper.
 the Plate.
 Shortening the Exposure.
 Silver Iodide, to make.
 Saving, Method of.
 Solutions, Volumetric Test of.
 Sky and Clouds, The.
 Softness in Lighting.
 Solar Camera Printing.
 By Artificial Light.
 Camera Printing Negatives, re-touching.
 Negative Reducing Process.
 Retouching Process.
 Stains from Negatives, Removing on the Hands.
 Stereoscopic Views, Printing.
 Negatives Preparing.
 "Stop," Use of the.
 Streaks and Stains in Negatives.
 Strengthening Gelatine Emulsion Plates.
 the Printing-Bath.
 Studio, the Glass.
 Construction of the.
 Curtains.
 How to Build a.
 Leaking of the Glass.
 with Curved Light.
 Working Plans for Construction.
 Subject, Choice of.
 Treatment of.
 Table for Converting Centigrade into Fahrenheit.
 for Converting Cubic Centimetres into Ounces, etc.
 for Converting Metrical to Troy.
 Millimetres into Inches, etc.
 Temperature in Printing.
 Tent, The Dark.
 Testing of Silver Solutions.
 Toning the Prints.
 Bath, Treatment of the Gold.
 Defective.
 Solutions.
 Touching out Prints.
 Transfers, Collodion, Iodizers for.
 Coloring.
 Developer for.
 Fixing.
 Gelatine Paper for.
 Printing.
 Transparencies, Bromo-Gelatine.
 for the Magic Lantern, To make.
 Treatment of the Subject.
 Use of the Diaphragm.
 Varnishes and Varnishing.
 Ventilation of the Dark-Room.
 Views of Interiors.
 Exposure for.
 Figures in.
 Vignette Printing.
 Paper, Waymouth's.
 Wastes and their Worth. [of.
 Waymouth's Vignette Papers, Use
 Weakness of the Film.
 Woolliness of the Paper Surface.
 Yellowness of the Prints.

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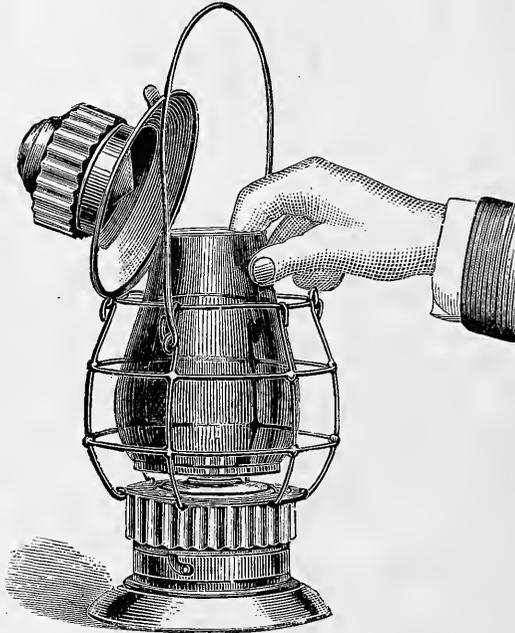
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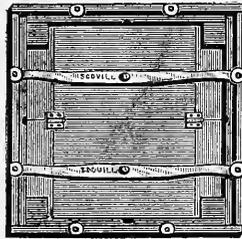
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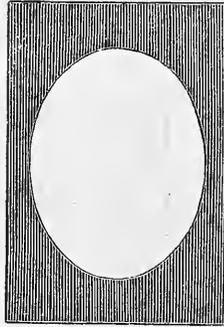
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THE

Philadelphia Photographer.

EDITED BY EDWARD L. WILSON.

Vol. XIX.

NOVEMBER, 1882.

No. 227.

OUR PICTURE.

WE embrace the opportunity this month (the earliest possible one) of making good our promise to our readers, to show them some of the results of our last winter's work in the Orient. The most of them have already read what we had to say of our visit to the Island of Philæ, near the first cataract on the Nile, in Egypt. The view which we present them this month is of a portion of the magnificent ruins which grace that lovely island. We shall never forget the impression we had as we approached it on a morning in January. We had read much about it, we had dreamed much concerning it; but it more than realized all of our expectations. We had trotted some six miles on donkeyback from the town of Assouan, passing the old rock temples and the Mahomedan cemetery, halting at the great quarry of Syene, whence the obelisks and many of the temples of Egypt had been hewn, and where still was to be seen one of the great monoliths partly attached and partly cut out of the rock, and partly imbedded in the sand; then through the red granite hills which bordered the Nile and the desert walls until, suddenly, a portion of the ruins of Philæ came in sight. The scene was one which a greater poet than we are should be employed to describe. But no imaginative bard could give so beautiful and real an idea of such portion of Philæ, as our pict-

ure embraces, as is given to us by our camera.

Long before the island itself was in sight, we saw a magnificent structure lifting itself towards the sky. It was a portion of the fine ruins known as "Pharaoh's bed." It reached up above the palm trees and everything else surrounding. Presently the whole island came in view. On either side, the river was shut in by immense walls of granite, which stood like sentinels watching every approach. These rocks are really red in color, but are now blackened by time and the flowing over their surfaces of the Nile at the time of the inundations. Now a great expanse of shining water came in view, glistening in the sun like lakes of diamonds, and then the palm trees bending assent to our approach as the wind capered among them. On the east stretched the great plain of the golden sand of the Arabian desert, which had been diffused also by the wind through every cliff and fissure in the island. Overhead was the bright blue expanse of heaven clear as clear could be, and yet not so hot as to be oppressive. The great pylons of the temple of Isis now stood forth, and presently we came to the shore of the Nile where we could see through the long columns of Pharaoh's temple bits of the portions embodied in our present picture. We embarked in a little boat manned with a Nubian crew, who, singing their sad song, rowed us across the water and landed us

upon the island proper. How lonely everything seemed amid those mighty temples which are spread over the whole of the silent island. The gods had abandoned their great structures, and even the little Christian church on the north end was in ruins. The good people who worshipped there were gone. The sculptured faces of the gods and goddesses gazed sadly from the crumbling walls, and seemed to wince under the effects of the noonday sun. The silence in the neighborhood was oppressive, and yet behold we were standing upon the very "gem of the Nile," whose glorious ruins have been praised by historians for ages back, and over which every traveller grows enthusiastic. Yet, at first, we could not realize that we stood on such classic soil. It seemed to bring back to us happy days which had been spent in Lake Maggiore on the Isola Bella and Isola Madre, and yet how strangely different were those figured temples from the great terraces and orange groves of Italy. And how widely different, too, the rounded columns and the broken masses of syenite with the great palm trees, were from the snow covered Alps and the beautiful tinted ranges of another region south, celebrated by the songs of poets and musicians, and the brush of the painter. A strange spell seemed to come over us. But we went there for work, and earnest work. The subjects bristled up about us on every side, and we proceeded busily with our companion and three cameras to gather in the treasures while the sun shone. Constantly we found ourselves dreaming either of the crocodile banks on the other side, or else of the noise of the cataract only a mile or two away, or else attracted by the squeaking of the neighboring shadoofs and sakyehs, with the rustling of the palm trees, with the work of those whose hammers and chisels, which once wrought here and now produced food for our camera. Sometimes we were diverted too by romancing over the solemn worship of Isis, or cogitations concerning the more simple service which characterized the devotions of the Christians who worship the meek and lowly Jesus; or else thought was broken by the amphibious boys who swam across from the

island of Bigeh on logs and bits of palm branches; or our hearts were made to thrill on seeing written in plain Anglo-Saxon on the wall of one of the columns, or in an interior, the name of a friend only recently dead, and under whose name another was quickly written; or the strange Nubians who now began to appear and pour into the island, having learned of the presence of strangers; or the unique pattern of the robes of persons which consisted only of a band around the waist of strips of leather about a foot long; or of the painter who sat up over one of the pylons under his umbrella quietly sketching, while we were compelled with camera on shoulder and plate box in hand, to struggle and wrestle with parts of the ruins only in order to accommodate the ability of the camera; or then dreams of the Pharaohs who once reigned here possessed us for a moment, or some such thought, and then we went on with the work. It was our determination before arriving here to make of Philæ something which should be presentable and worthy of the readers of the *Philadelphia Photographer*, and the subject which is now before you is the result of that determination. It is what we have ourselves dubbed *the view magnificent* of all of the magnificent bits of Philæ. It is of the Colonnade, starting at the southern end of the island, where the original entrance or approach to the island existed. A noble wall protects this end of the island, as indeed it does the east and west sides, and there are indications of stairways. Here too is a small obelisk which stood at the entrance gate, proving conclusively that the main approach was in this direction. No regularity either of style or line have these magnificent colonnades, which cannot be described so satisfactorily as they can be understood by close inspection of the photograph. The rows of columns do not stand parallel with each other, but at angles; and many other strange freaks architecturally will be seen displayed among them, of which it is to be noticed that the capitals and columns on the left or west side are scarcely similar in design or shape. That is, no two are exactly alike. Why such a freak should have been followed by the architect we know not, but such is the fact.

Scattered between these grand rows of columns are the remains of the once magnificent passage-way, which was doubtless crossed with avenues of sphinxes; whose granite remains still lie scattered about, and rows of minor columns whose rich capitals and bases may be found in number, and here and there with evidences of subterranean chambers, whose purpose we know not. Indeed it would be a veritable pretense to name in detail all that originally graced this little bit of the Orient.

The dimensions of the whole island of Philæ are only 435 feet in length, and 105 feet in width. The colonnade originally extended 240 feet along the river, and the grand propylon, partly seen in the distance, is nearly a hundred feet long, and rises on each side terminating in two lofty towers in the form of a truncated pyramid. The front of this is decorated with hieroglyphics, among which on each side is the figure of Isis twenty feet high. There are many other things which impress the beholder besides the majestic ruins of temples, things which carry his mind from these broken down works of men to one whose works remain forever. Here are many of the mysteries and unknown writings of the Egyptians, besides Greek inscriptions and Latin, telling the fact that they whose names are there written had come to worship the great Goddess of Isis. That men too, lived and looked upon the same sun, moon, and stars, the mountains and rolling rivers, who came here to worship mute idols; while again on the front wall is a sacred cross, emblem of the Christian faith. This has in turn been defaced and plastered over with figures of Egyptian deities, showing that another race had been there since the Christian had, to worship their God, who scorned and trampled on the relics of the Christian's faith. Here too the thunders of marine warfare have been heard above the roar of the cataract. The Roman soldiery had struck terror in the very centre of the regions and legions of the north, and after them another had swept the burning sands of Africa, for Napoleon had been here with his army and left his message upon the stony walls.

Thousands of recollections crowd upon

the mind, but there is no space to give vent to them here. The intent of our journal is too practical for this, and we must desist.

The Grand Temple of Isis on the island of Philæ was commenced by Ptolemy Philadelphus and Arsencæ, and completed by succeeding monarchs, including the two Cleopatras. Many of the sculptures of the exterior are of the later epoch of the Roman Emperors Augustus, Tiberius, Claudius, Domitian, Nerva, and Trajan, and doubtless they had to do with the parts which appear in our pictures. No Gothic architect ever produced anything so beautiful or picturesque. It contains all the effects of the light and shade found in Gothic art with the massiveness and grandeur of the Egyptian style, and there is no building of Thebes that gives so favorable an impression of Egyptian art as this. We feel that we have not erred in calling it *the view magnificent*, and we hope it may give pleasure to our readers, though unsatisfactory to us, on account of our inability to lay before them more of the beauties that we saw and photographed during our journey of a thousand miles up the Nile. We have published more of these things, however, for the public, and they are obtainable by those who desire them. We shall be glad to send any applicant a catalogue free. There is only one other thing, and a wonderful thing it is too, about this view which must not be forgotten, viz.: that without the emulsion plates it would have been impossible for us to have made them as we did. The greatest wonder of all is that the six plates from which our pictures are printed, were prepared by Mr. Carbutt in November, 1881, exposed in January, 1882, allowed to remain in their boxes in Cairo until May, and then brought to the United States, after traveling some eight thousand miles, and developed in the month of August, with the results which are before you. Of them you must judge. Surely we do not think that any such exploit as this ever took place in blessed photography before, though we have no doubt that many similar ones will follow. The pictures are made with a six inch Morrison wide angle lens, and a 5 x 8 American Optical Company Camera Box. With these we returned after our long

journey, they (and all of us) being in as good condition for use as when we left our native shore. This makes up *another* marvel for photography. Even the ground glass which was supplied us by the manufacturers named was intact (having stood the trials of a tropical climate), and is, after much use since, still whole. The pictures were printed on the well-known brand of paper used so long by us, known as the "Eagle," imported by Mr. G. Gennert, of New York, and of the shade known as Pensé. We charged our printers to use their best endeavors to secure full justice to our negatives, and we are ourselves eminently satisfied with what they have done. We trust that the whole may result in giving pleasure to our readers, and presently we shall supply them with other examples of our work made during the same pleasurable tour.

UTILIZING A FRILLED NEGATIVE.

A CORRESPONDENT writes, "This day (May 10th), during the afternoon, a peculiar heated condition of atmosphere prevailed, and, the actinic power of the light being weak, a cabinet negative, taken under such conditions, required a large amount of ammonia to force out detail, etc.; so that during the washing, after fixing, *frilling* set in from one of the edges, about one inch in depth. Placing the wet negative in a slanting position, whilst the moisture was gradually evaporating, with a camel's-hair brush the large frills were coaxed towards the outer edge, and kept there for a moment with the aid of the fingers. Then subsequently treating in the same way all the smaller frills, the disturbed area was eventually brought to a flat condition, and, as the film became a little drier, the application of the brush enabled those parts of the negative to be placed nearly in a proper position, which had become slightly out of form.

The object in writing is to show that the disturbed film, which was enlarged by the frilling, had, during the drying, gone back nearly to its original condition, simply, as it would appear, by getting rid of the air,

which being under each frill caused them to remain above the surrounding parts, as also by the physical action of the brush upon those frills (moved backwards, forwards, or in any way which seemed to allay the difficulty).

This little bit of experience may therefore be useful to others during the on-coming season, when one of the ills to which gelatine is heir may make itself inevitably visible.—*The Journal and Transactions of the Photographic Society of Great Britain.*

HOW TO MAKE ANY DRY-PLATE "TROPICAL."

BY D. BACHRACH, JR.

MY attention has lately been attracted by a controversy between the *Bulletin* and Mr. J. Traill Taylor, about the latter gentleman's omission to mention the "discovery" of Mr. Roche, in regard to making gelatine films insoluble, and which Mr. Taylor is undoubtedly right in refusing to mention, as well as any other "secret" process. I had been in the habit of depending on the *Bulletin* altogether for the choice extracts from the *British Journal* and *Photographic News*, as it is edited almost entirely with scissors and paste brush, and to this end served apparently a useful purpose, cheap. But I found out long since that any article which touched any of the "processes," secret or otherwise, in which they had any interest (notoriously the collodion transfers, yclept "megatype," and the collotype, or photo-mechanical processes, of which the English journals were full), was left severely alone.

Now a late number of the *British Journal* publishes a very simple, and, as I have found, a very effectual method of making any plate insoluble, without running any risk of deterioration of quality, which Messrs. Cramer & Norden assure me is the case in all ready-made "tropical" plates. The latter simply consist in combining just enough of chrome alum with the emulsion, before using, to make the film insoluble when once dried, and yet not enough to solidify it above a good flowing temperature, and this well-known applica-

tion of chrome alum has been used for years for other purposes. I am further confirmed in this by a well-known dry-plate maker, who assures me that a small quantity of this salt is used by most of them to aid in setting the film well.

But now to the method. I used

Water,	12 ounces.
Alcohol,	6 "
Chrome Alum,	72 grains.

After exposure I immersed the trial plates in this solution for two or three minutes, perhaps a little longer, and then soaked them in a dish of water, using a camel's hair brush to rid them of the bubbles formed by the alcohol in the film coming in contact with water, until the water flowed smoothly over the plate. (It would also be well in *all* cases to use the brush in developing to insure the absence of bubbles.) I then developed them, and they came up clear and brilliant, perhaps a trifle more brilliant than when not using the alum, and washed them in water of about 100° (warmer than it is likely ever to be used in summer), fixed as usual, and washed again in warm water as before, and dried spontaneously. There was not a particle of frilling or reticulation, no alum was used except that mentioned at first. A longer soaking would undoubtedly cause the plate to stand even drying by heat, which I did not attempt, as I don't consider it essential. The plates used were Cramer & Norden's, and Carbutt's J. C. B. brands. There is no question of its efficacy, though in cold weather I have never had a plate spoiled from its solubility, without any treatment. There is no use, therefore, in any one, even in the warmest climates, using plates already insoluble, if it is true, as stated, that they are not as reliable in keeping or other qualities as those not made so.

Now why the *Bulletin*, which professes to be published in the interests of the profession, did not copy the article in question, which is so evidently of use and value to workers in dry-plates, I do not profess to be able to explain. Perhaps Mr. Wilson can. A little incident of the past may give a clue. Some two or three years ago a good deal was said by the English journals about

the process of avoiding mealiness, producing even prints, and keeping sensitized paper, by means of a second floating on a *very weak* silver bath, or even water, before hanging up to dry; and after it had been published in another journal in this country the editor of the *Bulletin* copied the article in question from the *British Journal*, stating however that it was not new but old, having been used in their establishment for some time with excellent results. Pray, why the omission to publish it, and give it to the fraternity before? It seems that connection with "process mongering," both patent and secret, leaves a sort of taint and hankering after the same food, like the taste for liquor.

Of course every one is entitled to a patent, protection, and reward for any original and valuable invention, but the trouble with nearly all secret processes is, they are neither original nor valuable. Why is it that the *invention* of the gelatine bromide emulsion was given free by its original *developers* (it cannot be called a discovery of any one individual), who were clearly entitled if any one to reward; and yet every little matter of detail which is improved in any way is attempted to be made into a monopoly, by men who claim to be publishing journals, and who themselves have reaped the reward of the generosity of intelligent workers!

DRY-PLATE GUSH.

BY R. D. CHAPMAN.

OF course, photographers are using dry plates, or, perhaps more properly speaking, dry-plates are using the photographers; yet, be that as it may, both are being well used, and only time alone will tell which was used the most; but in the mean time let all stand off and have the fight a fair one.

Like many others, I am still struggling with the old wet plate, and believe I am master of the situation; but when I attack the new and dry one, am worsted every time. Either he knows me too well, or otherwise I do not know him well enough; still I know that at some not far distant day we will grow fond of each other, fall in love, become united in the holy bonds of photo-

graphic wedlock, and ever after remain one and inseparable.

Now what many would like to know is, why so much *gush* about dry plates, to almost the entire disregard and neglect of the wet and staple ones? Is it because they are so far superior to the wet, or simply because they are an innovation? The latter it must be, as many have failed to find the former.

Right here let us compare and leave conclusions to draw out themselves.

Artistic work is what every art-inspired photographer aims to produce, and whatever process will secure for him this result, at the least expense of capital and labor, that he naturally seeks. But even if he finds the more expensive one the better, he will, of course, adopt that.

Dry plates, if I am not mistaken, are the more expensive of the two, so we will immediately repair to the operating-room and see which should claim sovereignty there.

Under the light, dry plates require on an average two-thirds less time for exposure than the wet; but in the dark-room they require an average of four times the time of the wet for proper development.

Here permit me to give an illustration of the merits of the two plates. I have a fine subject, a young lady, of whom I wish to procure something artistic, *ne plus ultra*, and at once set to work with the dry plate to catch my prize. First position does not quite suit, is a little stiff, and gradation of light not exactly as appeared on ground glass. Make another, remedying what I saw in the first, but still see a fault that, if corrected, would place my prize above criticism. The third is made, my object accomplished, much to the satisfaction of both sitter and myself. Now reverse, supposing the same operation to have been performed with wet plate, and now calculate time consumed by each:

Dry plates,	time of exposure for 3 sittings,	15 sec.
Wet plates,	“ “ “ “ “	45 “
Dry plates,	“ development for 3 plates,	36 min.
Wet plates,	“ “ “ “ “	9 “

Admitting the results to be equal of each, the advantage of time from the exposure until the result of negative is known must be given the wet. But the dry-plate egotist

would instantly reply: “We never detain sitter to be informed of result of development, but go right on with the next, feeling satisfied that no move has taken place during so short an exposure.” Yes, but the case I have just cited is not one of move, but one that happens every week in a gallery where the proprietor's object is only to produce artistic work, and who exerts both mind and body to reach the highest point; and no photographer who loves the art he is following would allow his subject to depart without even knowing the result of the sitting himself. In fact, he is impatient to know this.

But to stop for a moment and consider the advantages to be gained over the wet by the dry under the light alone would perhaps be no more than just, for in taking very active children, nervous people, and late sittings, the dry plate is the superior. But when considering how few are the cases where the wet plate will not perform the same with like results, I ask, does this slight gain here offset the great loss of time in development?

Next comes the printing-room, and how often we are confronted by dry-plate negatives, possessed of a yellowish hue, which in many instances is almost non-actinic, something entirely unknown to the wet. To get from some of these negatives a half-dozen prints in four hours' sun printing under tissue is utterly impossible; whereas, with the wet, you have complete control of their printing qualities; and furthermore, neither do the average printing qualities of the dry compare favorably with those of the wet.

Because I have said this much in derogation of dry plates, do not hold me as one who will never let go an old process for a new and far better one; but as yet it is not clear to me that the dry plate possesses the more merits of the two. When the dry plate will do the same work, both quantity and quality, in the same time as the wet, then, and not until then, can it claim superiority.

The process that you have entirely under your control will certainly give the best results. But I fear that too many photographers did not have full control of the we

plates when they rushed madly with the dry into the field of strife, confident that the difficulties of the past would come no more.

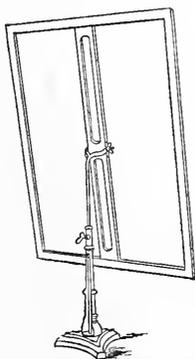
NEW YORK, July 10th, 1882.

A USEFUL REFLECTOR.

USING CYANIDE. HOW TO BUILD A PORTABLE TENT.

BY JAY DENSMORE.

THE accompanying cut shows the construction of a very simple and complete



reflector, that can be made very easily and cheaply by any photographer. The frame is three feet wide and four feet long, and is covered with bleached muslin stretched tightly. The iron rod in the head-rest base is clamped to the centre bar of the frame with a bolt and thumb-screw, allowing the frame to be tilted to any angle desired, while the rod in the head-rest base allows it to be raised or lowered as required. The cut shows its construction fully. A more convenient, cheap, or effective reflector it would be difficult to devise.

I dislike to hear so much abuse heaped upon cyanide of potassium, for I look upon it as a very useful servant of the photographer. To be sure it is a virulent poison, and must be handled properly, but has not the photographer reason and judgment that will enable him to benefit himself and his art by its use, and at the same time avoid its death-dealing qualities? For fixing both collodion negatives and positives it is unequalled, besides being useful for many other purposes, and because a careless ope-

rator is killed by it occasionally is no better reason for excluding it from the studio, than it would be to condemn the use of fire because people are sometimes burned to death. I use cyanide exclusively for fixing wet collodion negatives, and I always wash my hands thoroughly in soap and water immediately after using it in all cases, as well as after most other manipulations that cover the hands with a chemical solution of any kind. Every careful operator will do this whether using cyanide or not, and doing so, no harm will come from the cyanide, if equal care is used in other respects.

The best way to rig up a portable gallery is to lay a floor in sections, and erect thereon a strong frame to fit the inside of a ten ounce duck tent of the desired size previously provided. Have this frame firmly bolted together and to the floor, sleepers, or sills, and thoroughly braced. Insert in the proper places in the frame the top and side lights of sash and glass, as well as the necessary doors; then place the tent over all, securing it around the sky and side lights, around the doors and bottom with battens securely bolted, and you will have a portable gallery that is equal to the best when set up, and at the same time but little more troublesome to move than an ordinary tent.

PHOTOGRAPHIC CHIPS.*

BY INQUIRER.

DEAR little *Mosaics!* What would we do without you? The writer of this, taking himself as an instance, will frankly answer, "but poorly." May you grow fatter and bigger year by year; and for friend Wilson, your godfather, "may his shadow never grow less." Well, I am working away at my old branch of photography, direct positives in the camera.

Can I tell anything new for the good of those who produce the same class of work? I fear not. The great problem I have tried to solve, was how to work without using that invention of Satan, cyanide of potas-

* Written for *Mosaics*, 1882, but received too late; since overlooked. It is too good to miss, and we give it space now.—Ed. P. P.

sium. Have I conquered it? Yes, thanks, Brothers Peck (in *Mosaics*) and J. B. Gardner (in *Photographic Times*, of 1881), I have conquered it.

Mr. Gardner's formula for the developer which does the business, I give here, for the benefit of those who have not seen it. "Take one ounce of best pulverized nitrate of potash, and put it in a clean evaporating dish; add to it one fluidounce of common sulphuric acid; stir with a glass rod till dissolved, letting fumes pass off in open air. Let stand three or four hours till reduced to a thick paste, and dissolve in sixty-four ounces of water. Use one and a half ounces to every ounce of iron. Use sixteen ounces of water in which to dissolve the iron. Before adding the potash solution to the iron solution, add to the potash solution same number of ounces of alcohol as you use of the potash. Use no acetic acid. Fix in saturated solution of hypo." Collodion, made of ether and alcohol, each $\frac{1}{2}$ ounce, cotton (Hance's delicate cream) 5 grains, iodide of ammonium 4 grains, iodide of cadmium 2 grains, bromide of cadmium 2 grains.

For a capital varnish that dries without the aid of heat, use formula given by P. C. Duchochois: "Alcohol 95 per cent. 1 pint, white shellac 20 drachms, camphor 4 drachms. Dissolve, filter, and add castor oil 2 fluidrachms, liq. ammonia concent. 1 fluidrachm." I am done, and I only hope this will save some poor fellow the trouble of sending round to half a dozen different places to get all these formulas together. I saw a portrait (full length) of a lady, some time ago, made in a would-be "crack" gallery. The lady was in a ball dress with short sleeves, low neck, and a liberal display of bare bosom, and was bareheaded. Out-door scenery, with winter background, showing bare, leafless trees. How is that for high art? "Consistency, thou art indeed a precious jewel."

WILSON'S *Photographics* is about to enter its fourth edition. Its sale has been unprecedented. \$4.00 will secure it to you. New lot ready at once.

EBERS' EGYPT.

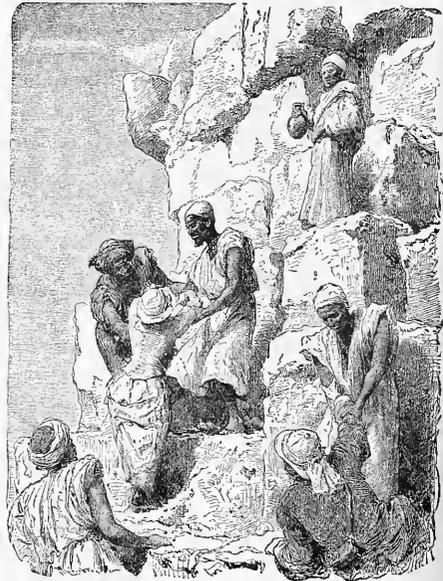
DESCRIPTIVE, HISTORICAL, AND PICTURESQUE.



A Dromedary Race.

THIS is the title of the grandest work ever published about Egypt, except perhaps that of Champollion, and in some respects it is superior to that.

Those who have read any of Mr. Ebers' charming romances—*Uarda*, *The Princess*, or *Homo Sum*—know full well what to expect in the way of rich and romantic descriptive matter, and the more because his translator is, in this instance also, the same, the talented Miss Clara Bell.



Climbing the Great Pyramid.

The present work comprises two colossal volumes of over 300 pages each, very pro-

fusely illustrated in the highest style of the art by thirty of the most famed artists of the world, who give us nearly seven hundred and fifty examples of their best work upon the most curious and picturesque subjects on the earth. Examples of these, reduced much in size, we are permitted to give below by the courtesy of the publishers, Messrs. Cassell, Petter, Galpin & Co., New York, and by the admirable skill of the Photo-Engraving Company, of New York.

The historical and descriptive part of the work begins with Ancient Alexandria, and then with fullest details chapters follow on Modern Alexandria; Through the Delta; The Land of Goshen; Memphis and the Pyramids; Cairo: the Founding and Rise of the City; Cairo under the Fati-

Cataract of the Nile. This grand array embodies in the most satisfactory way *all* that the modern and moderate student of Egyptology and of Egypt needs to keep fresh in his mind his subject, and yet it is by no means superficial. All of the *heart* which the German language permits its talented authors to impregnate their works with is most gracefully and carefully preserved by Miss Bell.

The book is a most charming and enchanting one all through. Our recent travels in Egypt enable us to testify to the truthfulness and naturalness of the illustrations used by Mr. Ebers. "Christianity was born in Palestine, but it was educated in Alexandria," says Mr. Ebers. How true this is, and the successors of the early Christians, the Copts, still make up a large part of the populace in the cities of Egypt. A beautiful face of one of these of the gentler sex (gentle also in the Orient where woman is so down-trodden) is here presented.

On our cover are two more reductions from full-page engravings from this admirable collection—one representing "Achmed"—a splendid example of a Nile back-sheesh beggar, and another of two faces showing the types known as the Bedaween and the Fellah, the former being the roaming tent-dweller of the desert, and the latter the more docile tiller of the soil. A third type is found in the Eunuch, who comes from the black races of the Upper Nile. Many of these are employed in the harems in Egypt, and are usually very dignified and trustworthy, though sleepy and awkward looking—spare of figure and tall.



A Coptic Maiden.

mides and Eyuobides; Cairo under the Mameluke Sultans; Cairo: its Decadence and Tombs; The Regeneration of Egypt; The Resurrection of the Antiquities of Egypt; The University and Mosque of El-Azhar; Cairo: the Life of the People; The Start for Upper Egypt; The Tombs of Beni-Hasan and their Teachings; On to Thebes: Thebes; From Thebes to the First

We have made our selections mainly from the portraiture department of Mr. Ebers' great work, because of most interest to our readers, but there is no dearth of magnificent views of places, palaces, and what not, besides a rich collection of bazaars and street groups, and antiquities. Photography has undoubtedly been a great helper to the artists here, and how truly

they have preserved its work is shown in this last drawing of that hourly scene in



A Nubian Eunuch.

Oriental cities, "The Muezzin's Call to Prayer."



The Muezzin's Call to Prayer.

Photography has again helped to reduce these fine works of art for our *Egyptian issue* (thanks to the Photo-Engraving Company) most perfectly.

Mr. Ebers' work has been gotten up in the highest style of the typographical art as well, and the two volumes are handsomely bound in cloth, gilt, at \$25 for the two volumes.

We know of several photographers who have already purchased them for studies and suggestions—backgrounds, accessories, etc., in their work.

It is *always* improving to a susceptible artistic mind, to study engravings like these. They suggest ideas; divert the mind and help on with the work; the thoughts which they induce always come up rightly when wanted in practice.

Send for a detailed circular to Messrs. Cassel, Petter, Galpin & Co., publishers, London and New York.

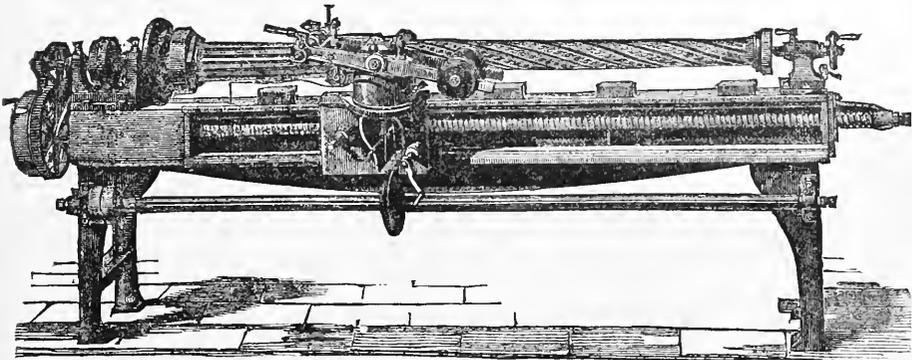
KNIGHT'S NEW AMERICAN MECHANICAL DICTIONARY.

WHILE it is our province to incline towards the artistic rather than the mechanical, we find so much in this new work of value to the special class made up by our readers, that we devote considerable space to a review thereof. So great have been the improvements in the mechanic arts, and so wondrously have they been developed since 1877 (when this work was first published), that the publishers are encouraged to issue an entire new volume, thus continuing the record from the date at which the former work went to press, carefully avoiding repetition, and aiming to furnish, not only a satisfactory supplement to the former edition, but a book which shall have an independent and separate value as a record of half a decade in the history of invention.

The first part of this splendid undertaking is before us, containing two hundred and forty pages of beautifully and closely printed matter, with seven hundred and fifty-nine engravings. Upon a careful examination we find that although the work is devoted to mechanics, there is much which

pertains to art in its pages, well worthy of the perusal of every enterprising business man and artist. Indeed every page is an exemplification of what photography and engraving are doing to help illustrate mechanics. And although this first section only leads to the close of the letter C, and therefore, photography has not yet been reached, or mechanics as applied to photography, we find much in it of value to the photographer. For example plate VII, facing page 174, is a magnificent example of wood engraving of some panels carved in walnut wood, by Prof. Luigi Finlini, of Florence, which all visitors at the Paris Exposition, of 1878, will well remember,

works as this will not only lead to invention, but be useful to the whole of our fraternity. It will improve any artist's mind and make him a better photographer and artist both. We gladly commend the work as one worthy of a place in every photographer's library. One great convenience about it is the form of *technical index*, adopted by Dr. Knight. Each article not only appears in its alphabetical place, thus fulfilling the function of a dictionary and affording direct response to inquiry, but the items of information thus distributed throughout the work are classified in special indices of the art, profession, and manufacture, to which they pertain. Thus



and which is now in the Museum of Budapest. Opposite this full-page work of art, are engravings of machinery used in these modern days for carving, with much information concerning carving in various countries. As an example of the beautiful quality of the engraving in this work, we present above, through the kindness of the publishers, Fig. No. 555, an engraving of Arbey's carving attachment for lathes. It has often been complained of the public, that when looking upon the photograph, in all its delicate beauty and imitation of nature, they think very little of the means which are employed to produce it; and so are photographers and artists open to the same complaint from others (carvers, for example), when we look upon their delicate work without consideration of the means applied for the production. We bring this matter to our readers' attention, because we believe that the study of such admirable

the book fulfils the function of a cyclopaedia, which has a collection of treatises, and the reader is guided straight to the information he is inquiring for, even though he be entirely ignorant of the name of the thing and have but a most vague and general notion of its use. Thus, too, the specific indices afford the reader an excellent opportunity to ascertain really all that pertains directly or indirectly to any special subject by using the index under the title of the subject, as a sort of head-centre, and following out its many branches throughout all its various ramifications. The author has also added a complete index to technical literature covering a period of five years, embracing from 1876 to 1880, inclusive. For men who have but little time, and who wish to use that little well, this will meet with the heartiest appreciation. The work will be published in four sections, and sold only by subscription. Each section will

contain 240 pages. Many thousand subjects will be treated and illustrated, with over 2500 engravings, many of which are full-page size. A circular further describing the new volumes with a portion of one of the technical indices will be furnished free, on application to the publishers, Messrs. Houghton, Mifflin & Co., Boston, Mass. Each section will be \$2.00. The first and second are now ready, the third will be ready in October, and the fourth in December.

GERMAN CORRESPONDENCE.

Stops and Exposures—Sensitized Silver and Platinum Printing Paper—Platinotype Process—New Cartoons—Eder's New Method of Emulsification—Measuring the Time of Exposure with Instantaneous Shutters.

THE impulse given to amateur photography by the dry-plate process becomes more marked day by day. The professional photographer, however, need not fear any breakers ahead on that account, for good amateur work only serves to lead to a better appreciation of photography, just as in the musical world there exists a truly harmonious relationship between the amateur and the professional musician. Nowhere are amateurs in music more plentiful than here in Germany, and yet in no other country are professional musicians better contented than here. The mistakes amateurs mostly make are: Miscalculated time of exposure, injudicious use of the stops, and incorrect development. In regards to the stops, it is also for the professional photographer a grievance that he does not know the relationship of the stops as to size. If he knows that a stop, which belongs to an objective, is one-half or one-third as large as another, he knows also that it is necessary to expose with the same four times, respectively, nine times as long as with the other. It would be well for the optician to mark the relationship of the stops as to size always on the stops, or better still, to give the respective time of exposure of the separate stops; if for the largest stop, one second is sufficient. This could be easily expressed by a number inscribed upon the

stop. I have made calculations with this object in view, for some objectives which are now very much in favor for dry-plate photographing, also for Steinheil's Aplanatic and Voigtlander's Euryscope. The following table indicates the time of exposure for the several stops: if for the largest stop, one second is required.

Stop.	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.
Steinheil's Aplanatic,	1	1½	2¼	3½	9	18
Voigtlander's Euryscope,	1	1½	2¼	6	12	26

It has, however, been remarked that the new Voigtlander Euryscope possesses at least one and a half times more strength of light (when fully opened), than the old Steinheil, and if with the latter one second is required, two-thirds of a second suffice with the former.

As an important expedient in amateur photography the durable, silvered albumen paper comes more and more into use, and of late the united manufacturers of albumen paper in Dresden, who run now without doubt the largest establishment of that kind in the world, have turned their attention to the manufacturing of sensitized albumen paper.

The platinotype process also receives, of late, more attention. Captain Pizzighelli and Baron Hubl in Vienna published, the other day, a pamphlet in which the most minute details of the platinum process, the preparation of the paper, etc., were given, so that full light has been thrown on the process. The method has merit for landscape and architectural pictures, but for portraits its tones are too gray. It is a rather unreliable matter for the photographer to prepare the paper himself; it is better to buy it sensitized. Of course it is a drawback that it can only be kept in a very dry place—best in the chloride of calcium box. The printing is done four times faster than with the silver paper, only the pale printed picture is very hard to be judged. The finishing is very simple. Develop with a warm solution of oxalate of potassium, which is quickly done, wash first with diluted acid and then with water. In any case, the manipulation is much easier than

with silver paper, which has to be dried, fixed, and then washed very long, and, furthermore, the platinum pictures have the advantage of being more durable. Only one point is against it—the high price of the paper. Silvered albumen paper costs 15 Reichsmark (about \$3.60) a book; platinum paper costs 24 Reichsmark (about \$5.76). If the platinum process should come into yet greater use, the price will, no doubt, appreciate still more, as platinum is much scarcer than silver, and, I believe, less plenty than gold.

Of late, a new style of photograph cards has made its appearance in Vienna, which is based upon the very happy idea of representing with the photograph of the person also his or her autograph. It is not to be denied, that in spite of the great competition and efficiency of photography, the old-fashioned autograph-album has come during the last year in vogue again to such an extent that often autographs are preferred to photographs. It is an old custom to express the importance of an occurrence in the family, or feelings of esteem, love, or friendship, by some lines adapted to the occasion, written in the album in quaint style and manner, and all this it is impossible to do with photography alone, for one and the same picture is given to the tried old friend, as well as to the acquaintance of the moment. Now, in order to combine the advantages of the photograph-album with the advantages of the autograph-album, the autograph cartoons (souvenir-cârtons,) have been invented, in which, apart from the space taken up by the picture, a nicely embellished space is reserved upon which to write any communication desired. These have found much favor already with the first photographers at Vienna and Paris, and all appearances seem to indicate that also the public at large will soon discard again the old-fashioned autograph-album, and take up in its stead the "Souvenir-cârtons."

Dr. Eder, the well-known photo-chemist; made recently some further experiments on gelatine emulsion, which showed that emulsions rich in gelatine mature quicker than emulsions poor in gelatine, and further that the treatment with carbonate of ammonium

increases the sensitiveness and intensity of the emulsion very materially. Eder says:

"I published already in April, 1880, that carbonate of ammonium acts similar to caustic ammonia. My experiments showed that it increases the sensitiveness as much, but the strength less, than caustic ammonia; but herein exactly lies an advantage for the portrait and landscape photographer. An after-digesting of the boiled emulsion with 3 to 10 per cent. of carbonate of ammonium solution (1:10) at 40°-50° C., for thirty minutes to two hours, is very effective.

"I tried successfully to boil of concentrated emulsion (namely, 24 gr. bromide of potassium, 20 gr. gelatine, in 200 cc.m. water, to which is added 30 gr. nitrate of silver, in 125 cc.m. water), only 9-10 or 19-20, and to retain 1-10 to 1-20.

"After the bulk has been boiled 1-4 to 1 1-2 hours or longer, it is quickly cooled down to 40°-50° C., and the remaining tenth or twentieth part of the undigested emulsion mixed therewith. Then let digest with 15-20 cc.m. of carbonate of ammonium solution (1:10) at 40°-50° C., for half an hour, and finally mix the whole with the gelatine solution (20 gr. and 300 cc.m. water). If more softness is desired, add the balance of the undigested emulsion, after the digestion with carbonate of ammonium. An emulsion boiled thirty minutes, then after-digested with carbonate of ammonium, shows in Vogel's sensitometer, almost twice the sensitiveness of the emulsion simply boiled once. Caustic ammonia, in place of the carbonate, effects more intensity. One can take instead of 1 Vol. of the latter, 1-4 Vol. of the former (d-o. 91). Gelatine emulsion made moment photographing a photographic sport."

At no time before were so many instantaneous shutters bought than in this year. With the instantaneous shutter it is of special importance to know the time of exposure and different methods have been in practice thus far. Dr. Keyser, the assistant of Hemholtz, says:

"An exact determination may be arrived at by two different ways, according to the construction of the shutter. If the lighting is done by an aperture, with fixed margin, no matter whether in slit or circular, or any

other form, being passed before the objective, the easiest and simplest way to determine the time of exposure is to have an electric circuit opened and closed by the slit-margin when in motion, and to measure the time intervening between opening and closing by the chronograph."

This method, however, is not practicable with another kind of instantaneous shutter, which has a simultaneous movement of two wings or lids, as for instance the Guerry or Pizzighelli shutter. With these shutters it is best to photograph an object, the velocity of the movement of which is known, and to determine the time from the way a point in the picture travelled. It is best to select for this purpose, an object which moves with uniform velocity, for a pendulum in motion, which is used by Obernotter for the same purpose, must give much less satisfactory results.

In experimenting with Guerry's shutter, I used an Atwood "slider," by which, as is well known, any desired uniform velocity may be imparted to a falling weight. In my experiment, I gave the weight a velocity of 27.003 inches per second, which is sufficient to determine a thousandth part of a second with sufficient precision. Guerry's shutter is moved by pneumatic pressure, and as the time of exposure depends therefore upon the velocity with which the caoutchouc balloon can be compressed, the time of exposure will therefore depend again upon the personal dexterity of the manipulator. With the quickest possible compression, I found the time of exposure to fluctuate between 0.0555 and 0.0635 seconds, that means a little more than 1-20 second. The length of the pipe between balloon and shutter exerted no influence, and the time was also not shortened by tightening the pipe at one spot with two fingers and compressing the balloon and then suddenly opening the fingers again, by which manipulation the exposure is apparently shortened.

Very truly yours,

DR. H. W. VOGEL.

PHOTOGRAPHIC MOSAICS, 1883, will give valuable information to the working photographer, and should be possessed by them all.

FRENCH CORRESPONDENCE.

Result of the Competition for Tourists' Cameras Instituted by the Photographic Society of Toulouse—Improvement in Chemical Photography—The Lacroix Method.

THE French Photographic Society has again prolonged the competition of the Gaillard prize, having reference to the best process for making sensitive films on a light and indestructible support. None of the competitors in the eyes of the members of the jury seem to deserve the prize; nevertheless, two silver medals were awarded as encouragements to Messrs. Balagny and Thiebault. The prize to be awarded at the end of December, 1882, will be of 1000 francs, the society having added 500 francs to the amount offered by Mr. Gaillard.

It seems useful to insist upon the importance of a process which would give, under excellent conditions, sensitized pellicles capable of being reversed, and we are surprised that we should have to wait still further for the complete solution of a problem which in appearance, at least, does not appear difficult.

The Photographic Society of Toulouse, on the other hand, had instituted a competition for tourists' cameras and frames for printing either pellicular or paper negatives. From the examination of the report of Mr. Fabre upon this competition, a desirable condition of lightness has not been reached. The principal prizes were awarded to makers of appliances certainly worthy of being encouraged, but there is still much to do in the direction of the object before the Paris and Toulouse photographic societies. This is our decided opinion.

An amateur has not within his reach any means enabling him to make a series of views, unless he is willing to carry with him a quantity of baggage. If he uses gelatine plates and the system of double frames, he has to take with him, besides the camera and stand, fifteen double frames in order to make thirty different views. This forms considerable bulk. We believe that with small portfolio frames containing each a sensitized pellicle, it would be possible

to arrive at the same result with much less volume and weight. Unfortunately this improvement is not to be obtained, and this is why photography is so little used. It will only come into general use when we shall have reached the preparation and use of pellicles exposed in a single frame, with the aid of small pasteboard portfolios with slides. This problem, we repeat, is still waiting a satisfactory solution.

There is a method pointed out by Mr. Fisch to remedy the slow printing on bitumen, by coating the metal, already covered with the bitumen, with a film of bichromatized albumen. The albumen is exposed, and the parts protected by the blacks of the cliché remain soluble in water. After this washing treat with essence of turpentine, which dissolves the bitumen unprotected by the coagulated albumen; finally, subject to a biting of acidulated water. In this manner the length of the exposure is reduced to a minute in the sun, and from 10 to 15 minutes in diffused light.

On the other hand, Mr. Léon Lacroix has sought for an analogous method, for which he has taken out two patents; one for obtaining prints in black lines upon a white ground, the other for a paper giving prints in white lines upon a blackish-brown ground.

Here are these two processes:

1. Preparation of the paper giving black lines upon a white ground.

Neutral Chromate of Potash,	10 to 15 grms. (3 drs. 34 grs., 3 dr. 51 grs.)
Sulphuric Acid,	10 to 15 cc. (2 fl.oz. 42 m., 4 fl. drs. 3 m.)
Water,	100 cc. (3 fl.oz. 3 drs.)
Alcohol at 95 Baumé,	5 to 10 cc. (1 fl. dr. 21 m., 2 fl. dr. 42 m.)

The paper covered with this compound is exposed to light under a drawing from one to two minutes in the sun, or from eight to ten minutes in diffused light. The drawing appears in yellow upon a white ground. The paper is then withdrawn and kept from the light for a minute. The drawing, which had been yellow, takes a violet tint, which may become a blackish-brown. No wash-

ing or fixing is necessary, but there is no objection to washing in water after the appearance of the drawing. We may also use a reacting bath thus compounded:

Water,	100 cc. (3 fl.oz. 3 drs.)
Sulphate of Proto-oxide of iron,	2 to 3 grms. (31 to 46 grains).
Tannic Acid,	3 to 4 " (46 to 62 grains).
Alcohol,	5 cc. (1 fl. dr. 21 min.).

Galic acid may take the place of the tannic acid, and a saturated solution of persulphate of iron for that of the sulphate of protoxide of iron.

2. Preparation of the paper giving white lines upon a blackish-brown ground.

Water,	100 cc. (3 fl.oz. 3 drms.)
Bichromate of Potash,	25 to 30 grms. (6 drs. 25 grs. to 7 drs. 42 grs.)
Alkali,	5 cc. (1 fl. dr. 21 m.)

This last product preserves indefinitely the paper thus prepared. The paper is coated with this liquid and allowed to dry away from the light. It is then ready for use. Expose under a drawing from one to two minutes in the sun; from eight to ten minutes in diffused light. Wash in water, and we obtain images of a tone more or less brown.

Mr. Lacroix might have dispensed with taking out a patent for a process already old, and in which there is nothing of his own. Images formed by bichromate of potash upon paper were known long before the inventions of Poitevin, but the brown color thus obtained is far from being black. It is of a dead-leaf shade, and does not acquire the desired intensity. More decided transitions from a pure white to any dark color are preferred. It is astonishing to see the number of patents for processes that have long since become public property. This shows great ignorance on the part of those who take them, unless among some, and the smaller number assuredly, there is a dishonest speculation. Our laws in France prevent any one from deciding upon the supposed merits of these useless patents. There is danger of being prosecuted for injury caused to private industries, and in the meanwhile the patentees without any rights catch quite a number of dupes.

THE INDIANAPOLIS CONVENTION.

OUR space was so fully occupied last month, in order to conclude the report of the Convention, that we could say very little about the *appearance* of things to a visitor at the Convention.

The first visit to the Park Theatre, where the meetings of the Association were held, displayed the fact that considerable preparation had been made by the committee in charge, for the pleasure and convenience of the assembly. Large placards on stands were scattered here and there through the auditorium, with the names of the various States inscribed upon them, with a view to attract members and delegates from the different States to group themselves together, and thus secure better acquaintance.

The seat of government was upon the stage, and at the side of the royal chair were the tables supplied for the reporters, of whose number we made one. It was a great pleasure to sit there and to see the gentlemen and ladies, the members of the Association, with happy faces (which came from the consciousness of having paid their dues, and possessed themselves of the coveted blue badge), come in, and find ushers ready to take them to the quarter where their State-rights secured them a seat.

On the opposite side of the street was the Masonic Temple, where the exhibition was held. This room we found immensely crowded all the time. It was scarcely large enough to contain all the exhibits, and, therefore, considerable bunching up had to be resorted to. The pictures were largely without frames, fastened to the uprights in various ways, and in that way a great many more were exhibited than could have been, had they all been elaborately framed. The room was beautifully decorated, and natural flowers were scattered here and there, adding much to the beauty of the inclosure.

The public did not seem to encourage the exhibition by their presence as largely as we have seen them do in former days, but perhaps this was just as well for the Convention. The attendance was unusually

good, the best, perhaps, since the birth of the new Association, but by no means, as large as former ones of the National Photographic Association. Everything seemed to have been done by the committee to secure success, and the general impression was that they had done well. There was not so much preparation as at New York, last year, but perhaps this was wise, because the preparation made at New York was not taken advantage of, or used as it should have been. We believe that the growth of the Association will follow this last Convention, though we regret that more was not done for the common good than was done, owing to the amount of time taken up over matters of business, which were really of very little importance to any body. We should like very much to have photographers understand and believe that the greatest good resulting from the Convention does not come from these disputes over parliamentary rules, and from tinkering at the Constitution; although such things are in themselves important for the time being, they are not important enough to take up the time of the whole Convention, to the exclusion of matters which are of more practical value. Some of the subjects which were largely talked of in the magazines before the Convention, as being of great importance to discuss, were not even mentioned; for example, the matter of prices; while nearly a whole day was taken up in choosing a locality for the next year, and the new officers. All matters of business could safely be referred to the Executive Committee, who could meet between the sessions and could make their reports at the coming sessions, and thus a great deal of time would be saved.

These are matters, however, which must be learned by experience and we suggest that in another year the affairs might be better managed. Besides this, there were a number of papers that had been prepared for reading, and there was no opportunity to have them read, for there was no time. These are not lost, because they will appear in our report, but the useful discussion which generally follows such papers, and which is frequently of more value really than the papers themselves, which are only

suggestive, were lost, and the good that they might do to outsiders was prevented. We hope that everybody will go into the matter of the Milwaukee meeting with earnestness now and begin to prepare to go there with the determination that things will be managed better. An excellent staff of officers has been elected and they went away from Indianapolis with the determination on their part to make the next Convention the grandest one that was ever held.

List of exhibitors, Indianapolis, August, 1882:

H. Pietz, Springfield, Ill.; Elmer & Tenney, Winona, Minn.; Louis DePlanque, Corpus Christi, Texas; S. J. Dixon, Toronto, Can.; C. F. Richards, Leominster, Mass.; Thomas Charles, St. Catharines, Ont.; Wm. H. McComb, Muskegon, Mich.; J. C. McCurdy, Booneville, Mo.; R. W. Dawson, Little Rock, Ark.; Karl Klausner, Farmington, Conn.; Strauss & Bros., St. Louis, Mo.; W. H. Jackson, Denver, Col.; C. W. Motes, Atlanta, Ga.; H. Taylor, Berlin, Wis.; C. W. Taylor, Sycamore, Ill.; W. H. Potter, and D. R. Clark, Indianapolis, Ind.; J. E. Beebe, Chicago, Ill.; Cramer & Norden, St. Louis, Mo.; A. Boyd, Des Moines, Ia.; B. Poole, St. Catharines, Ont.; D. H. Cross, Grinnell, Ia.; F. A. Place, Warsaw, Ind.; Campbell & Camp, Mansfield, O.; A. H. Plecker, Lynchburg, Va.; Edy Bros., London, Ont., Can.; G. Frank Pearsall, Brooklyn, N. Y.; C. H. James, Philadelphia, Pa.; J. F. Couer, Troy, N. Y.; R. F. Tattershall, Hamilton, O.; H. Lieber & Co., Indianapolis, Ind.; C. A. Schindler, W. Hoboken, N. J.; Douglass, Thompson & Co., Chicago, Ill.; J. W. Bryant, Laporte, Ind.; Hiram J. Thompson, Chicago, Ill.; Lawton's Absorbent Cotton, S. A. Drummond, Evans-ton, Ill.; Willis & Clements, Philadelphia; Taylor's Dry Plates, Chicago; J. M. Adams, Terre Haute, Ind.; T. J. Robinson, Oxford, Miss.; M. Meyerhuber, Adrian, Mich.; J. A. Collins, Lynn, Mass.; Thomas H. McCollin, Philadelphia, Pa.; Photo-Mechanical Printing Co., Chicago, Ill.; John Carbutt, Philadelphia, Pa.; James M. Lombard, Boston, Mass.; Quincy Show Case Works, Quincy, Ill.; Mallinckrodt Chemical Works, St.

Louis, Mo.; James H. Smith, Quincy, Ill.; Mullett Bros., Kansas City, Mo.; E. Long, Quincy, Ill.; Beebe Dry Plate Co., Chicago; E. A. Gilbert, Meadville, Pa.; D. H. Cross, Des Moines, Ia.; Jordan & Sheen, Cincinnati, O.; J. C. Somerville, St. Louis, Mo.; Charles Clifford, Newton, Ia.; B. French & Co., Boston; W. H. Cooper, Chicago, Ill.; D. A. Clifford, St. Johnsbury, Vt.; N. C. Thayer, Chicago, Ill.; Walkup Bros., Indianapolis, Ind.; J. Landy, Cincinnati; G. Gennert, New York; L. W. Seavey, M. Gambier, and W. A. Ashe, New York; F. W. Guerrin, and C. H. Spurgeon, St. Louis; W. A. French, H. N. Calkins, C. T. Burrell, Boston, Mass.; George Smith, London; H. P. Robinson, Tunbridge Wells; William England, B. J. Edwards, Rouch & Co., R. W. Thomas, A. L. Henderson, and C. F. Shadbolt, London; C. Heitel, Germany; M. Loshe, Alexandria, Egypt; F. M. Good, London; A. Liebert, Paris; J. F. Ryder, Cleveland, O.; Joshua Smith, Chicago; J. H. Reed, Clinton, Ia.; C. Chadbourne, Fond du Lac, Wis.; and E. Klauber, Louisville, Ky.

THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

TREASURER'S ACCOUNT FOR 1882.

Sept. 1.—Subscription to general fund,	
as per list attached, . . .	\$1220 00
Dues and fees paid to J. E. Beebe, Treasurer, . . .	847 00
Dues and fees paid to J. D. Cadwalader, . . .	339 55
Ap'l 14.—Amount received from sale of old awning, . . .	7 00
Aug. 4.—Amount received as balance from A. Hesler, . . .	43 49
Aug. 25.—Amount received from J. Cadwalader, from sale of old lumber, decorations, etc., . . .	18 25
Making total receipts, . . .	\$2475 29
Amount paid on vouchers, . . .	2316 20
Balance due by Treasurer, . . .	159 09
	<hr/>
	\$2475 29

Voucher Payments Represent—	
Expenses of Executive Committee,	\$261 50
Rents,	235 00
Music and excursion,	105 00
Police,	22 00
Lantern exhibition,	20 00
Badges,	97 80
Decorations, etc.,	478 85
Printing of manual,	168 00
Poitevin monument,	25 00
Secretary's five per cent.,	122 85
Treasurer's five per cent.,	122 85
Secretary's expenses, lumber, etc.,	514 00
Shorthand report of proceedings,	75 00
Amount paid by Treasurer,	50 20
Amount paid R. R. Fares, lectures,	18 00
	\$2316 20

SUBSCRIPTIONS TO GENERAL FUND.

A. M. Collins, Son & Co., Philadelphia,	\$100 00
Douglass, Thompson & Co., Chicago,	50 00
H. Leiber & Co., Indianapolis,	25 00
Seovill Manufacturing Co., New York,	150 00
The Beebe Manufacturing Co., Chicago,	50 00
J. C. Somerville, St. Louis,	25 00
G. Gennert, New York,	25 00
L. W. Seavey, New York,	50 00
Mullett Bros., Kansas City, Mo.,	25 00
T. H. McCollin, Philadelphia,	20 00
Richard Walzl, Baltimore,	25 00
Cramer & Norden, St. Louis,	100 00
Jordan & Sheen, Cincinnati,	25 00
Benj. French & Co., Boston,	100 00
E. & H. T. Anthony & Co., New York,	75 00
H. J. Thompson, Chicago,	50 00
H. A. Hyatt, St. Louis,	25 00
Malinekrodt Chemical Works, St. Louis,	50 00
John Carbutt, Philadelphia,	25 00
A. G. Taylor, Sycamore,	10 00
Quincy Show-case Works, Quincy,	5 00
W. F. Ashe, New York,	10 00
American Albumen Paper Company, Rochester,	25 00
Charles Cooper & Co., New York,	50 00
C. A. Schindler, W. Hoboken,	5 00
W. J. Hazenstab, St. Louis,	25 00
J. W. Gillis, Rochester,	25 00
J. N. Lombard, Boston,	15 00
Black & Co., Indianapolis,	20 00
J. A. Anderson, Chicago,	25 00
Gustavus Bode, Milwaukee,	10 00
	\$1220 00

Truly yours,

J. E. BEEBE,

Treasurer.

[The above is the copy of the report

handed to us by the late Treasurer of the Photographer's Association of America, Mr. J. E. Beebe, but we are obliged to note one item which is not correct, viz., the shorthand report of the proceedings seventy-five dollars. We have reason to know that no such sum as that was paid by the Treasurer, and in justice to Mr. Beebe it ought to be said that such a payment was ordered by the Executive Committee, but circumstances arose which prevented the stenographic reporter, Dr. C. R. Morgan from supplying any copy of his report to any one excepting the PHILADELPHIA PHOTOGRAPHER, and the *Photographic Times*, so the expenditure was not made. Upon informing Mr. Beebe of this fact, he answered, "I can make no change in the statement, as the books are closed. I will, however, cover the amount back into the treasury, and you can make the explanation public in the journal." The Association, therefore, is seventy-five dollars better off than this report makes it out to be.—ED. P. P.]

THE ANALOGY BETWEEN SOUND AND COLOR.

THE Analogy between Sound and Color and the Art of the Future, is the title of a little work written by Mr. Guert Gunsevoort Finn, late of Cleveland, Ohio, whose sad death is announced in our editorial this month. It has been prepared in book form by Mr. J. F. Ryder, of Cleveland, and is sold for the benefit of the estate of the deceased. The doctrines which it advances are a little in advance of those usually held by others, and yet who can tell but that they will in time be accepted by all? Mr. Finn starts out with the following sentiment in his prelude:

PRELUDE I.

"Science is an accumulation of facts relating to the laws or operation of nature put together, or arranged in a systematic order.

"Exact science seems to be a definite knowledge of natural laws.

"Speculative science is the preliminary reaching after, or searching for a knowledge of laws or truths, which we feel must exist by reason of our intuitions, or by cer-

tain effects we observe which are analogous to effects of already known laws. However thoroughly we may be grounded in our faith of the truth or fact of the existence of a law, it must necessarily remain speculative until it is grasped and formulated.

"Reduced facts, or known ones, are behind us; speculative ones before us.

"Without speculation we should make no progress."

From his second prelude we quote also, as follows :

PRELUDE II.

"A young child is pure and simple, morally, but it is the elementary purity and simplicity of primitive human nature, resultant upon utter absence of knowledge or experience.

"Little by little, as the child observes and accumulates experience, it becomes aware of other facts in nature, both tangible and intangible, and in the course of its upward progress to full physical maturity, has learned to see and comprehend, at least a great part of his material surroundings, and many of the laws governing the immaterial."

Mr. Finn then proceeds at considerable length to advance his theories as to the analogy between sound and color and the art of the future, the gist of which may be found in his last pages, and we quote as follows :

"But, some one will ask, where do you find rhythm in pictorial art in any such degree as to sustain its analogy with music, which is so largely founded on rhythm ?

"This question brings me at once to the most difficult and dangerous part of the presentation of this subject. I shall be obliged to answer that the analogy is practically not sustained at this point between sound and what has always been offered to us, and accepted by most of us, as the highest phase of art, namely, pictorial art in its broad sense.

"And now I shall be obliged to state what I fear will bring down upon my head the anathemas of all artists, at least all in this country; for were I to venture my statement in England, I should feel confident of

the approval and support of at least several artists of intelligence and position, and that of numerous laymen; for this subject has been in good hands there for some years, as far as we can judge from the slight indications which reach us on this side of the water; although not yet strong enough to come out and form a school, and battle, as they inevitably would have to do, with the prejudices and traditions of old-established art beliefs and habits.

"As simply as I can state my position, it is this: I believe that the intelligence, the mind, the spirit of man, as most of us understand it, is higher than the body, or the sensuous part.

"That the sensuous portion of man has to do mainly with the things of this life, while the intellectual and spiritual has to do largely with what we hope for in our commonly-called higher state of existence, after we have done with earthly things.

"Music, in the main, is the language of the emotions. It is capable of representing and appealing to the passions, and may describe events of a certain kind, and scenes, with wonderful force.

"In the hands of Bache it has reached the plane of the intellectual, and is given to us in geometrical forms of great purity and power, with scarcely a suggestion of the sensuous. But this seems to be its limit, and is of rare occurrence in the art.

"Pictorial art deals also almost exclusively with the facts and emotions belonging to the earth. In those instances where it attempts the higher planes it is always through the medium of the laws and effects belonging to the earth, and earthly existence alone of those which the five senses, or some one of them, can comprehend; that is, pictures always recognize the accident of light coming from one point and casting shadows, thereby making one side of an object appear dark and the other light.

"We know the object is not so in reality, but only so in appearance to our eyes, temporarily, in consequence of the direction from which the light happens to fall on it at the time of transcription.

"Point of sight is always taken into consideration, and perspective; both of which are the result of the accident of our being

limited to one location in our comprehension of a scene; so making a distant object appear smaller than one nearer us and weaker in color. These effects we know with our intellect, to be merely appearances, due to our relative position to the objects viewed; not the actual facts. If any accident place us on the other side of all the objects we have been looking at, the appearance will be reversed; those which from the first point of view appeared largest will now appear smallest, while the actual facts remain the same.

"Now if we can rid art of these accidents, will it not be capable of rendering the higher class of subjects, spiritual, moral, and intellectual, with greater power, or at least be capable of presenting subjects or suggestions to the higher faculties with much greater real truth and force? I believe so.

"But how is it to be done? Simply by representing them in strict conventional or so-called decorative manner; leaving out all light and shadow, and point of sight and perspective, and foreshortening, and all other things that have to do merely with our limited range of senses, and adopting instead suggestions, symbols if you will, in pure outline and color, arranged in rhythmic order and according to geometrical laws, which will appeal to and edify the intellectual, and spiritual, and higher man. I do not maintain that all the subjects which are now handled by so-called high art, can be represented in conventional. They cannot be. But the highest class of subjects which have been attempted in pictorial art, I believe, can be rendered in a higher and purer manner in the conventional; and a class of subjects which pictorial or realistic art cannot even attempt, will some time be presented to our higher faculties in that manner of representation. Not objects and effects; but LAWS.

"For myself, I cannot hesitate for a moment to elevate to the highest pinnacle of art that which we now call conventional; involving as it does the principles of rhythm, melody, harmony, geometrical law, form in the purity of the ideal, and which will edify the soul by drawing it away from merely earthly considerations,

and teaching it to LOOK UNTO, INSTEAD OF AT, EXTERIOR APPEARANCES OF ETERNAL TRUTHS."

This doctrine, so new, will give a good deal of thought to some of our readers who are thoughtful. We know that there are a great many among them nowadays, and therefore we make free to present it to them.

Another object which we have in view is that the thoughtful will purchase Mr. Finn's book liberally, and read the whole of what he has to say on this most interesting subject. Too much art knowledge cannot be imbibed by the photographer of to-day if he would succeed and keep abreast of the times, and we look upon it as a matter of duty on our part to bring these subjects before them for their careful consideration.

THE COMING TRANSIT OF VENUS.

BY WM. BELL.

THE transit of the planet Venus across the face of the sun occurs on the 6th of December next, and the scientific world is looking forward to that event with great interest. In every civilized country preparations are being made to observe the transit, and the various civilized governments have made liberal appropriations to send out parties of observers to various points. The United States government is not behind the rest of the world in this respect, Congress having appropriated \$75,000 for this purpose. The authorities have equipped eight parties, and those intended for distant parts of the earth started in the early part of last month. The same method employed in observing the transit of 1874, by means of photographs of the sun's surface, will be followed next December, and it is believed that the results will justify the wisdom of this selection. Besides the four stations in this country, which will be at Washington; Cedar Keys, Florida; San Antonio, Texas; and Fort Thorne, N. M. there will be four foreign stations, namely: Cape of Good Hope; Santa Cruz, Patagonia; Santiago, Chili; and one in New Zealand.

All of these parties are now on their way to their stations.

The question might be asked by the unscientific mind why so much interest is attached to this phenomenon. Transits, eclipses, and other phenomena are continually occurring without any particular interest being attached to them. The reason is that Venus affords the best means of mastering a problem which is one of the most important within the whole range of astronomy—the distance of the sun from the earth. As the orbit of Venus is nearly on the same plane as the earth's orbit, it happens from time to time that it passes between the sun and the earth, and appears like a black spot crossing the luminous disk. This passage occupies several hours, and takes place at intervals of 8 years, then $113\frac{1}{2}$ years, 8 years and $113\frac{1}{2}$ years, and so on. The last passage occurred in 1874, and the one following this year's will not occur until the end of 122 years, or in 2004. Two observers, situated in the stations most distant from each others, note the two points where the planet, seen from each of their stations, seems to be projected at the same moment in the solar disk. This measure gives the angle formed by the two lines starting from the stations and crossing each other on Venus and passing on to the sun. It is the measure of this angle, made by observers placed on all parts of the globe, which gives what is named the parallax of the sun. The determination of the solar parallax, therefore, is the object of these expeditions. Another object to be attained is the accurate position of Venus in reference to the centre of the sun, and also the measure of the diameter of Venus in the sun's disk.

DISTANCE OF THE SUN FROM THE EARTH.

The inaccuracy in the present estimate of the distance of the sun from the earth is, according to Prof. Hall, about a half a million of miles. By the use of the photographic method, which Prof. Hall considers far superior to any other, he hopes that the data will be obtained which will determine within a small fraction of a second the solar parallax.

LIST OF THE PARTIES FOR FOREIGN STATIONS.

Station: Santa Cruz, Patagonia.—Lieut. Samuel W. Very, U.S.N.; O. B. Wheeler,

Astronomer; Wm. Bell, of Philadelphia Pa., Chief Photographer; Irwin Stanley, M.D., Assistant Photographer.

Station: Cape Town, South Africa.—Prof. S. Newcomb, U.S.N., Superintendent Nautical Almanac, Washington, D. C.; Lieut. T. L. Casey, Corps of Engineers, U.S.A., Astronomer; Julius Ulke, Chief Photographer, Washington, D. C.; — Holcombe, Ensign, U.S.N., Astronomer and Photographer.

Station: Santiago, Chili.—Prof. Lewis Bose, Dudley Observatory, Albany, N. Y.; Milese Rock, Astronomer, U. S. Naval Observatory, Washington, D. C.; Theo. C. Marceau, Chief Photographer, Ogdensburg, N. Y.; Chas. S. Cudlip, Assistant Photographer, Washington, D. C.

Station: Auckland, New Zealand.—Edwin Smith, U. S. Coast Survey, Washington, D. C.; Prof. Henry Pritchett, Washington University, St. Louis; Augustus Story, Chief Photographer, Boston; Gustave Theilkühl, Assistant Photographer, Washington, D. C.

The above parties are to reach their stations one month before the transit, they practising daily, so that on the day of the transit all will be perfect and doubt removed in regard to the process to be then used, viz., either collodion bromide, washed emulsion, or the collodion and silver bath. The washed emulsion is prepared by Joseph A. Roger, Astronomer, U. S. Naval Observatory, Washington, D. C., and is furnished to the photographers of each station in solution, accompanied with printed instructions for its use. These instructions are to be followed literally, with latitude left the photographer to change, provided such change is, in his judgment, necessary. The collodion and silver bath are to be used only in the case, after careful trial (before the transit), of the washed emulsion bearing fault not to be overcome, such as slipping of the film, the least movement of which will render the plate unfit for use, as it will give false measurement. The plates obtained are never printed from; therefore, a clear good positive can be measured from their faces, provided the lines are very clear. If this is not the case, the plate is pushed further in the development and converted into a

THE PHILADELPHIA PHOTOGRAPHER.

negative. Density in the plate is very little sought for, clear lines with no obscuration being the principal value desired. Such a negative is measured by transmitted light. Plates are developed by the following :

Pyro,	3 grs.
Water,	1 oz.
Ammonia,	½ dr.
Water,	1 oz.
Citrate of ammonium,	30 grs.
Liquid ammonia,	½ dr.
Water,	1 oz.
Tannin,	20 grs.
Water,	1 oz.
Alcohol,	1 oz.
Bromide of ammonium,	20 grs.
Water,	1 oz.
Hyposulphate of sodium,	1 oz.
Water,	16 ozs.

Mode of Preparing Plates.—The edges of the glass are ground with sharpening stone put in Carey Lea's bichromate and sulphuric acid solution; remain over night, then well washed and flowed while wet with albumen 1-16, well dried and coated with the emulsion, put in drying, when dry exposed, and development proceeded with by first flowing the plate with the tannin and alcohol solution. This is supposed to penetrate the film and harden the albumen under-strata. Let remain on for two or three minutes well washed, and take pyro solution 1 ounce (for 7x7 plate), 4 drops ammonia water, 2 drops bromide water, pour upon the film, and the image appears in a short time. The development is helped by adding equal parts ammonia water and bromide water, and the citrate of ammonia being resorted to to give greater contrast. When developed, wash well. Prolonged development and too much ammonia are to be avoided, as these tend to raising of the film. The washed emulsion promises to be of great value in the transit, allowing very many more exposures than would be possible with the collodion and silver bath during the short time of the transit.

PHOTOGRAPHIC MOSAICS for 1883 is well under way, and will be ready about November 15th. Orders should be in ahead.

PHOTOGRAPHIC EXPERIENCES IN THE EAST.

BY W. H. RAU.

(Continued from page 246)

HAVING done Cairo pretty well, we packed together in a separate lot those cases we intended taking up the Nile with us, stowing those with the exposed plates and unopened boxes in the house of Brugsch Bey, who was ever ready to assist us. Until a few years ago, all Nile journeys were made in dahabeahs, a boat peculiar to the Nile, carrying an immense single sail. But the traveller can make the journey in much less time, and, perhaps, with more convenience on the Khedive's steamboats, which are fitted up with state-rooms like an ocean steamer. They are very shallow, as the shifting bed of the river forms many bars, so that a boat of heavy draught could only travel in safety during a very high Nile. On Tuesday morning, January 17th, we had everything put aboard the Beni Souef, which was lying at the Cairo end of the Kasr-el-Nil bridge, ready to start at 10 A.M. This gave us a chance to make a picture of our boat, loaded, as the decks were, with chicken-coops, orange-crates, fruits, wine-cases, etc.

Promptly at 10 o'clock, we started up—or *down*?—this wonderful old river, on whose banks can be seen famous temples, beautiful tombs, magnificent ruins, such as can be found in no other country in the world. After a pleasant ride of two hours, during which time we passed the Island of Rhoda and the Great Pyramids, we arrived at our first landing-place, near the village of Bedreshayn. Here we found hundreds of donkeys and fighting donkey-boys. Our dragoman was obliged to use his whip freely to keep them back, while he selected a number sufficient for the passengers. Soon we were all mounted and scampering through the cloud of dust towards Sakkara. After an hour's ride, we passed the site of ancient Memphis. The ground once covered by this famous city is now a vast palm-grove; the only traces of the former grandeur are a few pieces of broken red granite, sections of columns, broken statues, etc., lying about. A colossal statue of the great Rameses lies,

face down, in a pool of dirty water. About four miles further on, we arrive at Sakkara, the necropolis of Memphis. This desert is a vast cemetery, covered and filled with innumerable pyramids, tombs, etc. Here is the burial-place of the famous bull Apis. Living, the sacred bull was worshipped in a magnificent temple at Memphis, and lodged in a palace adjoining the Apieum; dead, he was buried in excavated vaults at Sakkarah and worshipped in a temple built over them—the Serapeum. Nothing remains of this great temple above, but below the ground, the tombs and immense sarcophagus have been excavated by the late Mariette Pacha. Each bull was placed in a separate sarcophagus, cut from a solid block of granite weighing thirty tons, and covered with a single granite slab fifteen inches thick. Near the Serapeum is the tomb of the famous high priest Tib. The mastabah, an external covering, has disappeared, but the chambers within are wonderfully well preserved. We obtained several excellent pictures of the court in front of the tomb, also of the step pyramid and others, the oldest in Egypt. They were neither beautiful nor picturesque, but very interesting. The interior of the Apis mausoleum would have been preferable to the other tombs, but would have required the use of magnesium, and as all hands were mounted, and starting back towards the steamer, we did likewise, stopping only at the site of Memphis and making a few exposures. Arriving on board at 5 P. M., our boat started up and travelled until dark, when we tied up to the bank for the night.

In the morning of the second day, we pass on our right the dwarf pyramid, called "El-Kedab," or False Pyramid. Towards noon we pass Wasta, a village of some importance. In the evening, Esneh is reached, where the steamer remains for the night, having travelled all day without stop. We found our overcoats none too warm, as the air was cold but dry. At 8.30 in the morning of our third day we arrived at Minieh. It contains a fine palace belonging to the Viceroy, who spends a few weeks here in the winter, and a most extensive sugar manufactory, employing about 2000 hands. Here we made negatives

of the natives unloading the sugar-cane. We were conducted through the entire establishment. It was indeed large, covering several acres of ground. A beautiful instantaneous view of the town was made from the upper deck of our steamer. After noon we reached a miserable Arab village on the east bank, where donkeys were again taken, and the rock-cut tombs of Beni Hassan visited. An hour's ride brought us to the foot of some high cliffs, up which we climbed to the tombs, far up above the river, cut out of the solid rock, several of them with fine old lotus and papyrus pillars still standing. The walls are covered with hieroglyphics, figures, scenes from life, etc., nearly all of them colored and retaining their original brightness. Several interiors were made, showing the columns which are supposed to be the first of their kind. They are probably 4800 years old. Here occurs the first instance of the use of Doric pillars, cut outside of one of the grottoes or tombs. The light color of the cliffs reflecting the bright sun blinds one terribly, and it is with some straining of the eyes that accurate focusing is accomplished.

In making the excursions from the steamer to the places to be photographed, we had no trouble in getting assistance; in fact, a fight was always in order as soon as it was known we had something to carry. We found that force was necessary to drive away the crowd of beggars and thieves. The villages of Beni Hassan were destroyed many years ago by Ibrahim Pacha, the inhabitants being incorrigible thieves; and even now it is well to keep a good watch when anchored near this spot.

All of the fourth day we were forging ahead without stop until 8.30 P. M., when we reached Assiout, the capital of Upper Egypt and the residence of a Pacha, the Inspector-general of Upper Egypt. By this time we were quite well acquainted with all hands on board, and among them we made the acquaintance of two young American gentlemen, which acquaintance ripened into a friendship which bound us together through Egypt, Arabia, and Palestine for many weeks after.

On the morning of the fifth day, an early

start was made on very good donkeys through the town of Assiout to the tombs in the high cliffs behind the town. The ride was picturesque and enjoyable, until we arrived at the foot of the cliffs, when we were stormed by crowds of boys and men offering mummy hands, arms, feet, etc., for sale. We climb the cliff and obtain magnificent views of the town and surrounding country. On the left is the Lybian Desert, defined by a sharp line against the rich green of the valley of the Nile. The distance being great, we found our single Morrisons come into play. A few exposures on the rock tombs and we descended, going direct to the camel and buffalo bazaar. This being Saturday, or market-day, the camel bazaar was crowded with the beasts, which still came streaming in, like a circus procession, until scarcely moving room was left in the open square. At least a thousand camels were here on sale. How they could be kept track of by their owners was a mystery, as they had no harness or covering. Mixed in with the camels were a number of cows, or a species of buffalo, with horns turned down. The sight was a grand and beautiful one. Climbing a rough mud wall, and reaching the top of a straw-roofed house, a good view overlooking the entire space was obtained, and a number of successful quick exposures made. After which a short ride through the bazaars where a number of small purchases were made, and we are on our way to return. Several steamers having just arrived in the harbor, it presented a busy and brilliant scene, which we caught on a couple of B-plates, finally taking our leave at 3.30 P. M.

THE PLAQUE.

THIS is the name given to the latest and one of the most beautiful styles of photographs introduced, and is the result of the skill of Mr. F. B. Clench, Lockport, N. Y. It is already creating considerable interest among those to whom it has been shown, and deservedly so. Its name almost tells what it is. The present size is mounted upon cabinet cards, and it consists of a new

beautiful vignette portrait with a cameo circular depression of three and three quarter inches in diameter, deep, with peculiar elevated rim around the outside limits, thus giving the appearance of a plaque; or about the border is printed in gray, cut to a peculiar design of the inventor, and at the upper end of the mount, running nearly across it, is a tasteful design, lithographed, with the word plaque in imitation of bas-relief, and at the bottom a similar design with the monogram of the photographer at the right. Altogether it is one of the most tastefully gotten up things we have seen for a long time, and is sure to take. We shall endeavor in our next issue to give our readers a series of photographs reduced of examples made by Mr. Clench, meanwhile they would do well to refer to his advertisement in the proper place, and secure the right to manufacture them under his patent for the holidays. Mr. Clench works in a different direction from what parties generally do who have inventions to sell. Instead of leading them to believe that the product thereof is easy and simple, and can be done with ordinary tools, he supplies machinery at a comparatively low price, with his gallery rights, and full instructions, practically how to produce the best results. We know him personally to be exceedingly fair in every respect. I believe that nobody will fail, or can fail in introducing what he offers. Our readers know that we are exceedingly careful about commending anything for their purchase, but with such beautiful examples before us, and a personal acquaintance with Mr. Clench, and after a thorough examination and investigation of the method proposed by him of conducting the business, we feel safe, this time, in saying what we have. He offers examples of his work for sale, and those who cannot wait, and are anxious to have something to stir up the holiday business can apply to him for a few specimens of his work.

The mounts now used by Mr. Clench have been greatly improved since we saw his first specimens, and they are now not only ornamental and rich, but very chaste in design. Indeed, the plaque portrait is as beautiful to look at as a fine piece of jewelry.

SOCIETY GOSSIP.

CHICAGO PHOTOGRAPHIC ASSOCIATION.
—A regular meeting at their rooms (Douglass, Thompson & Co.'s), 229 and 231 State Street, was held on Wednesday evening, September 6, 1882. Mr. Douglass being absent from the city, the chair was taken by Vice-President Greene.

Messrs. C. A. Tenney, of Winona, Minn., and J. A. Brown and H. C. Kersting, of Chicago, were elected members.

A motion having been made and carried, to suspend the regular order of business, Mr. Hall stated that he would like to say a few words concerning the sad event that had occurred since the last meeting. He presumed that all the members had heard of the very sudden and unexpected death of one of our most esteemed members—Mr. John H. Fitzgibbon. He had supposed that a special meeting would have been called to take some action in relation thereto, but the absence from the city of several of our most prominent members, and other unavoidable circumstances, had caused the matter to be postponed until the regular meeting. He therefore moved that a committee of three be appointed to draft resolutions appropriate to the sad occasion.

The motion having been seconded, put, and carried, the chair appointed Messrs. Hall, Smith, and Beebe such committee.

The committee thereupon retired, and presently returned and reported as follows:

Mr. President and Gentlemen, your committee begs leave to report the following resolutions:

WHEREAS, God, in his infinite wisdom, has removed from this life our esteemed co-laborer, John H. Fitzgibbon; be it therefore

Resolved, That we, the members of the Chicago Photographic Association, recognizing the fact that in this Divine dispensation, his family has been deprived of a devoted husband and a kind and generous father, the community of a good citizen, the press of a talented editor, the photographic fraternity of a fast friend, and this society of an honored member; therefore

Resolved, That his sudden removal leaves a vacancy which will be long and sadly

felt by his associates in business, and a void that can never be filled in the family circle.

Resolved, That we tender our deepest sympathies to the afflicted wife and family, and assure them that we shall ever hold in remembrance his name, which has been for so many years dear to the photographic fraternity.

Resolved, That a committee be appointed to drape this room with emblems of mourning befitting the sad occasion.

Resolved, That the Secretary be and he is hereby instructed to forward a copy of these resolutions to the widow of the deceased, and also to the photographic journals, with a request to publish the same.

(Signed) A. HALL,
JOSHUA SMITH,
J. E. BEEBE,
Committee.

The above resolutions having been adopted unanimously, Mr. Beebe said that having been much in the society of the deceased at the Convention, he could say that up to the last he was cheerful, enthusiastic, and untiringly working for the interests of photography. Of no other, probably, could it be said with more truth than of John H. Fitzgibbon, that he "died in harness."

On motion, the meeting adjourned, out of respect for the memory of our late member.

F. H. DAVIES,
Secretary.

ASSOCIATION OF OPERATIVE PHOTOGRAPHERS OF NEW YORK.—At a meeting held September 6, 1882, the following resolutions were offered and accepted:

WHEREAS, The Infinite Ruler hath suddenly removed our respected friend and brother, Mr. J. H. Fitzgibbon; and

WHEREAS, Recognizing the generous character and faithful service rendered by the deceased; and

WHEREAS, This Association has always cherished the kindest sentiment of esteem for him as a man and co-worker; therefore be it

Resolved, That we hereby express to his family and the fraternity our united sympathy and profound sorrow in their bereavement; and

Resolved, That a copy of these resolutions

be forwarded to his family and communicated to the photographic journals for publication.

J. TRAILL TAYLOR,
P. A. MCGEORGE,
M. J. LYNCH,
CHAS. SPROTTE,
A. H. ATWOOD,

Committee.

HOW THEY DO THINGS IN THE FRENCH SOCIETIES.

A SUGGESTION TO OUR SOCIETIES.

WHILE in Paris we had the pleasure of attending the May meeting of the French Photographic Society, and were very much pleased with the orderly manner in which the business was conducted. A printed programme of the proceedings was issued to the members before the meeting, and was strictly adhered to during the evening, nothing being allowed to interfere with this order of business or to disturb it.

We append a brief translation of this programme, in order that our readers may see just what the practice was, commending a similar method to our societies here.

1. Balloting for the admission of new members.
2. Presentation of new members.
3. Correspondence.
4. A review of the French and foreign photographic journals.
5. Various presentations and communications.
6. Nomination and election for membership of the council to replace one who had died.
7. A communication from Mr. Janssen respecting the photographic revolver used by him during the late eclipse.
8. Presentation by the same gentleman of clichés exposed during the eclipse.
9. Presentation of Monsieur Londe of a drop for out-door work.
10. Presentation by Monsieur Davanne, President of the Society, of a Zincographic process, with examples of printing, etc.
11. Presentation by Monsieur Mozan of a new developer for emulsion plates.
12. Presentation by Mr. David of clichés made upon celluloid, as a substitute for glass.
13. Presentation by Mr. H. Martin of a

dark chamber, for the use of tourists, to be employed for paper or pellicle negatives of gellatine-bromide.

Quietly and systematically this programme was followed and after each presentation, time was given for discussion by the members upon the subject in hand. When the programme had been gone through with to the end, the meeting was adjourned. Any new matter coming up was handed to the council and prepared for the next meeting, if it was desirable that it should be discussed.

BIBLIOGRAPHIC.

OUR good friend and well-known contributor, Dr. H. W. Vogel, has again undertaken authorship, notwithstanding his many other pressing duties, and given us another very excellent book. It is of the size of his Hand-Book, 176 pages, and entitled *Die Fortschritte Der Photographie Seit Dem Jahre 1879* (*The Progress of Photography since the year 1879*). When reviewing the wondrous growth of photography since its birth, one would be disposed to think it hardly worth while to write up the progress of our young art for three to four years of its life; but when we realize that these last years are more crowded than any other like period with interesting and valuable photographic events, the learned doctor will be congratulated and praised for his clear-headedness in preparing us this new work *now*, while the profusion of material can be readily collected. We arranged some time ago with him for its reprint in the English language, and already the translation is being made. Therefore, a more lengthy review will appear presently. Meanwhile, we desire to congratulate our old friend on the thorough and scientific manner in which he has done his work. *All* that he does is *thorough*—always, and we would expect nothing else from him. Moreover, his entertaining style of putting things makes all he writes of interest to the majority of his readers. Many splendid illustrations accompany the work, of methods, apparatus, plans, etc., and altogether, in a short time, our readers may expect a rare treat from the perusal of this splendid book.

Editor's Table.

PICTURES RECEIVED.—Mr. H. McMICHAEL, Buffalo, N. Y., sends us a large batch of his work of various sizes, from 11 x 14 to cabinets, which show him to be a careful and skilful photographer, able, too, after making a good negative, to print it tastefully and mount it properly. All ages and sexes are included in this lot, but *the gems* are of a dainty little Miss, of whom he has secured several charming negatives for a future "Our Picture" herein. Mr. McMICHAEL writes: "For sixteen years I have been a reader of your valuable journal." *Good*. Two 5 x 8 groups of the Photographers' Association of America members, taken at Indianapolis have been sent us by Mr. J. CARBUTT, Philadelphia, of excellent quality. They were made on his Keystone Plates. Capt. W. C. RUSSELL, 84 Hanover Street, Baltimore, Md., has favored us with five panel portraits of a young lady made in a bedroom, with a south-side light only, and certainly he has done remarkably well with the means at his command. Mr. T. D. LYON, New Bedford, Mass., has also invented a new style of picture. The specimen before us is mounted on an 8 x 10 black, gilt-bevelled card. The photograph is a seven-inch circle, in one of Mr. SEAVEY'S plaque borders, mounted in the right upper corner. A trail of pansies and daisies is then painted by hand in natural colors, reaching from the right, below the photograph up to the left centre of the same. The effect will be admired by some, and the style gives a chance to the amateur painter, too. Mr. J. A. MASON, Leavenworth, Kansas, whom we had the pleasure of meeting at Indianapolis, has mailed to our table eighteen panels, mostly vignettted which are mainly of children, and, as a collection, as fine as anything we have received for a long time. Mr. MASON is evidently on good terms with the babies, and has secured some choice expressions from them. We envy any man the ability to get such results. We are trying to persuade Mr. MASON to make "Our Picture" negatives some month soon. From Mr. W. BUTLER, Vermillion, Dakota, some interesting scenes from that wild territory, including one of the first school-houses in Dakota. From the same gentleman some very pretty portraits of various sizes, those of a little girl being specially attractive. From Mr. BEAL, Minneapolis, Minn., some very creditable cabinets made by the electric light. From Messrs. PERKINS, San Francisco, VANDERLIP, of Toronto, and

WHEATLEY, of Duquoin, Ill, creditable examples of their work. By C. P. MACDONALD, Waterford, Penna., photographs of his exhibition at the Great Central State Fair, where he obtained the first premium for his work. From Mr. E. D. ORMSBY, Oakland, Cal., some character pictures of Carol Crouse, and GEORGE GALLOWAY, in theatrical costume. From Mr. J. F. RYDER, Cleveland, Ohio, a set of magnificent dry-plate landscapes, which were exhibited by him at the Indianapolis exhibition, and noticed elsewhere. "Who Struck SINGHI," is the title of a forlorn picture which comes to us from our Binghamton friend. If we may venture to answer, it must have been the departing tail of the comet which struck him. It is a capital make-up, which could only be conceived only by the only SINGHI.

ANOTHER "PLAQUE."—Mr. HENRY ROCHER, Chicago, Ill., announces in his advertisement still another style of "Plaque" picture. They are altogether different from Mr. CLENCH'S, and only adapted to larger sizes. Two specimens before us—9 x 12 inclusive diameter—are very fine. They are enamelled and bound with a gilt rim. They are finished by mounting on blue or maroon velvet, and richly framed. For a high-priced picture they are very handsome, and must take. Mr. CLENCH'S style will go to the millions—Mr. ROCHER'S to the millionaire. Read future advertisements and comments.

BEEBE'S Chloride Gelatine Dry Plates, for lantern slides, window transparencies etc. etc., are now ready for the market, and full instructions are supplied for their use. We have tried them, and they are very superior. No. 2449 Cottage Grove Avenue is the number of the new factory of THE CHICAGO DRY-PLATE CO. This last production will be found very acceptable to the trade.

A SPLENDID PICTURE.—Messrs. CRAMER & NORDEN, St. Louis, Mo., send us an 18 x 22 group of the attendants upon the Indianapolis Convention, framed nicely for our office wall. It was made upon one of their plates, and we do not see how it could be better. Surely it is a very encouraging sign for our art that such pictures are possible. The new factory for CRAMER & NORDEN plates is corner of Shenandoah and Buena Vista Streets.

NOTES OF THE CONVENTION.—It would take all of our space for a month to give anything like a description of all the beautiful and useful things we saw at the Convention, and moreover, so busy were we in attendance upon the meetings that we were hardly able to make up a full report. But having promised to mention several who were enterprising enough to be represented there by their persons and their goods, we now proceed to fulfil our obligations. Among the photographers, we noticed the work of Mr. DIXON, of Toronto, whose excellent address has already been reported, in which was used the electric light.

Mr. J. H. REED, Clinton, Iowa, had one of the most ambitious displays that were made, consisting of a variety of sizes, among which was a new style recommended by Mr. PEARSALL some time ago in our magazine. Some of these, and especially one of the young lady in a hammock, were admirable, and reflected great credit upon the ambitious artist who produced them. As we stated to Mr. REED in person and also to every one else, that even if such pictures are not largely encouraged by the public, they are good exercise for the artist, and indirectly bring him a great deal of business. We wish that more understood this policy.

Mr. C. W. MOTES, of Atlanta, Ga., also made a very excellent display—his pictures of ladies in white drapery were particularly fine, showing exceedingly delicate workmanship and careful lighting. Mr. MOTES is, as may be guessed from the fact that he attends the conventions, one of our best photographers, and each year shows progress in his work; the natural result of ambition and study to do well.

Mr. E. H. CORWIN, Ottawa, Kansas, exhibited a lamp and some very interesting pictures, which attracted a great deal of attention, and deservedly so.

Mr. MAX PLATZ, well known for so many years as chief operator for Mr. ROCHER, of Chicago, was also present at the Convention, and made a very interesting display, the work from his new studio, which promises exceedingly well.

A crowd was always gathered around the exhibition of pictures made upon Mr. NEIDHARDT'S emulsion plates, whose factory is now 360 Milwaukee Avenue, Chicago, and is known as the "Garden City Dry-Plate Company." All the delicacy and softness which could possibly be required in photography was secured by Mr. NEIDHARDT upon his plates, and they are surely growing more and more into favor.

The same may be said of the collection of photographs shown by Messrs. CRAMER & NORDEN, of St. Louis, whose plates are used by a great many photographers in the west, and from which beautiful results were scattered all over the room.

This too was the case with the productions of the plates of the BEEBE DRY-PLATE COMPANY, of Chicago, Mr. J. CARBUTT, of Philadelphia, and from the EASTMAN DRY-PLATE COMPANY, of Rochester, N. Y., who also made a magnificent display of their work. Mr. CRAMER'S several addresses before the Convention and Mr. BEEBE'S paper and remarks will be found exceedingly useful to dry-plate workers. There seems to be a willingness on the part of all these gentlemen to communicate all the information they can with respect to the working of the plates, whether they be of their own manufacture or others. There is plenty for them all to do, and they can easily afford this.

Mr. L. W. SEAVEY could not find enough room in the exhibition to display his backgrounds and accessories, and held forth at No. 42 North Illinois Street, where he had a large and most tempting display.

Among the dealers who were present we noticed Mr. THOMAS H. MCCOLLIN, of Philadelphia, with a variety of his productions on exhibition.

Messrs. B. FRENCH & Co., with their always splendid lenses of the VOIGTLANDER make.

Messrs. JORDAN & SHEEN, of Cincinnati, who were there in person.

Messrs. LEIBER & Co., of Indianapolis, whose store was always crowded.

The Gem City Camera Stand, manufactured by the Quincy Show-case Works, Quincy, Ill.

MACDONALD'S patent vignetting attachments and shutters, two of the most useful novelties in the trade.

NORCROFT'S new paint distributor, Rockford, Ill., and various others which are named in the full list of exhibitors, which we give in another place.

Mr. J. C. SOMERVILLE, of St. Louis, presented each attendant upon the Convention with a very prettily bound account-book and lead-pencil attachment as his means of advertising himself, and a pretty good means it was. Mr. SOMERVILLE was in attendance in person and one of the busiest men present.

The most beautiful display of chemicals that we think we ever saw was to be found at the Convention, and was made by the MALINCKRODT

CHEMICAL WORKS, who also presented a very pretty manual of instruction for the use of their chemicals in working the various formulæ needful in the practice of the photographic art. A capital idea. This little manual was freely distributed and will be sent still to any one applying for it. These gentlemen are making a large trade for themselves in the west and in the south, and are certainly deserving of it. In the language of one who stood by looking at their display: "Their chemicals look good enough to eat." Doubtless some of them were pure and clean enough.

The largest displays in the way of photographic supplies were made by MESSRS. HIRAM J. THOMPSON, of Chicago, and MESSRS. DOUGLASS, THOMPSON & Co., of the same city. Among the various articles displayed by Mr. THOMPSON, was the studio register, peerless varnish-pot, and filter. A fine variety of backgrounds and accessories of papier mache and wood, besides the large line of picture frames, too large entirely to be contained in the exhibition, and which were therefore displayed in several rooms at the New Dennison Hotel.

One of the most desirable things we saw in this grand display was the Turkish drapery, which we understood took immensely. We believe there was enough display made by these gentlemen to occupy the attention of the whole Convention.

Another very complete display was that of MESSRS. DOUGLASS, THOMPSON & Co., which was presided over by Mr. DOUGLASS in person, assisted by a staff of helpers, all of whose names we did not learn. Among the novelties displayed by these gentlemen was the ROBINSON shutter, a very excellent contrivance, both practical and durable, LAWSON'S absorbent cotton, an obelisk of which stood in front of their display attracting a good deal of attention.

The only fine variety of photographic books was displayed by these gentlemen, rebuking our own lack of enterprise in this matter. Outfits for amateurs, price lists and circulars of all kinds and styles of articles pertaining to our art—picture frames, mounts and accessories, varnish filters, varnish pourers, Mrs. ALLEN'S barnisher, Mrs. ALLEN'S contrivance for holding-glass for the retoucher, and any quantity of literature in the way of hints for dry-plate workers, hints on varnishing photographs, and manual of hints for amateurs. Illustrated price list of frames, also a catalogue of a photographer's studio, numerous examples of which were displayed and largely purchased by the delighted

photographers, who went home from the Convention determined to do better work than ever before. And why should they not, when they are so carefully attended to by such enterprising dealers as we have in these modern days? This is only a part of the many things which were enjoyed by those who were present, and we hope it will make everybody sorry that did not go, and cause them to attend the next Convention.

The evening meetings at the Convention were two in number, and consisted of a display by means of the magic lantern of slides which were handed in by photographers from different places. The most important elements of these *seances* were the display of artistic portraiture by Mr. A. E. DUMBLE, of Rochester, New York, of copies from antique works, by Mr. W. H. SHERMAN, of Milwaukee, and of a variety of portraits and other things by Dr. GARRISON, of Chicago. Much more could have been made out of these displays if the gentlemen had directed the attention of the audience to the artistic and inartistic elements of their pictures, bringing home those lessons to the photographic poser which would have been of value to him, but we know how hard this is to do before a promiscuous audience, of whose sympathy you are not sure. We hope that what was done will lead to something better at some future time.

DR. D. VAN MONCKHOVEN, the eminent photographer, author, and manufacturer, died suddenly at his home, in Ghent, Belgium, September 25th. He was a comparatively young man, and his loss will be felt for many a year. We owe much to his useful life.

A NEW DRY PLATE.—Mr. F. ULRICH, 156 Bowery, N. Y., a long and a well-known photographer has associated Mr. COLCLOUGH with him in the manufacture of first-class dry plates. The firm title is "THE MANHATTAN DRY PLATE Co." We wish them well. Read their advertisement, and try their plates.

THE FITZGIBBON MEMORIAL.—Mr. J. T. MASON, Leavenworth, Kansas, heads the subscription with ten dollars; where are the ninety-nine others to follow suit?

Mr. GEORGE MURPHY, at his new store No. 250 Mercer Street, New York, is doing a very nice stock business. He is an enterprising young man, full of push and pluck, and stands well with his trade. His "Eagle" goods are also popular.

ITEMS OF NEWS.—MILLER & Co., Davenport, Iowa, have sold out to Mr. GEORGE E. JONES, formerly with HASTINGS, WHITE & FISHER. Success to the new arrangement. With his four employés he does a good business.—We are sorry to hear that the studio of Mr. P. F. TATTERSHALL, Hamilton, Ohio, has been totally destroyed by fire. The loss is about \$3,500; insured for \$3,000.—Mr. W. L. BATES, Denver, Col., has associated with Mr. MUHR, formerly with Mr. KURTZ, of New York, as his partner, at Denver, Col.—A Paris photographer set fire to the house on the opposite side of the street, while allowing the rays of the sun to pass through his lens so as to concentrate them on his neighbor's blinds.—Mr. C. F. MOELK, Edina, Mo., received the first premium at the county fair for his work.—Dr. C. R. MORGAN, the well-known short-hand writer and law reporter, has, with his customary enterprise, removed to a new office directly opposite the office of the *Philadelphia Photographer*, No. 919 Chestnut Street, in the *Record* Building. Send for his circular, if you wish anything done and done well in his line. We believe our reports of the Indianapolis Convention, which were written by him, are far better than those given by any other magazine.—The second edition of "How to Make Pictures," five thousand copies, now makes its appearance, enlarged, revised, and handsomer than ever. This book has had, perhaps, the most remarkable sale of any photographic book. It is published by the Scovill Manufacturing Company.—Messrs. A. M. COLLINS, SON & Co., have introduced several new and very beautiful designs for the back of cabinet cards. Paragons of neatness and taste.—Messrs. HYNCKS & JOHNSON, Bridgeport, Conn., were the manufacturers of the London hansom-cabs, which are now attached to the new depot of the Pennsylvania Railroad Co. in this city. Mr. JOHNSON is a distinguished amateur photographer as well, and favored us with photographs of one of his hansom in advance of their appearance here.—A new instantaneous drop, one of the most ingenious and efficacious drops which have been brought into life by the necessities of the new emulsion plate, was shown to us recently by Messrs. WILSON, HOOD & Co. Its action is very rapid, almost free from jar, and certain to work without disappointment. It will be found described in their advertisement and circular.—Messrs. A. M. COLLINS, SON & Co., 527 Arch Street, Philadelphia, favor us with a very beautiful artotype, by GUTKUNST, of their new building. We have before described this handsome structure, but the photograph does it better. A recent visit to

this splendid establishment fairly astonished us with the amount of business which is transacted there. There is nothing so extensive in all the world in this line.—The Scovill Manufacturing Company, N. Y., Mr. W. IRVING ADAMS, agent, have just issued a new descriptive catalogue and price-list of photographic apparatus manufactured by the American Optical Co., of which they are the proprietors and manufacturers. Many new illustrations and new features, and different lists are embodied in this splendidly printed catalogue of forty pages, which will be found exceedingly useful to buyers, and doubtless your dealer may supply you with a copy with his own name on free; if not, send to headquarters.—Mr. HENRY ROCHER, Chicago, Ill., desires us to repeat that his splendid establishment is for sale, solely on account of his ill-health. There are few American photographers who have the pluck and the money to undertake such an establishment as this. It is a splendid chance, and can be had at a low price. Perhaps some of our foreign men of enterprise will do well to look into this matter. Our foreign contemporaries would do well to repeat this notice.—Mr. T. R. BURNHAM, Boston, Mass., recently returned from Europe with a large stock of negatives which he has made on emulsion plates, some of them 28 x 32. We were privileged to inspect them during a late visit to Boston, and cannot help but admire and commend the enterprise which secured such wonderful results. Mr. BURNHAM'S indomitable will and skill as a photographer only enabled him to bring back such results with him. He is a genius in every respect, and generally makes a success of what he undertakes.—Mr. S. T. BLESSING, 87 Canal Street, New Orleans, favors us with a fifty-page catalogue of his photographic stock and material, very neatly printed, and very complete. It does not cover so many pages as some other catalogues, but upon examination we find it one of the most satisfactory and easy to understand of any we have seen.—The Chicago Dry-plate Manufacturing Company now sails under the following officership: Mr. J. E. BEEBE, President; Mr. CHARLES E. CHASE, Treasurer; and Mr. L. E. BEEBE, Secretary. So largely increased has the business become of this Company that they have been compelled to erect a new factory, and have recently occupied it. It is situated at 2449 Cottage Grove Avenue, Chicago, in close proximity to Lake Michigan, which supplies it with the purest air and water obtainable. The basement is devoted to the boiler-room and storage of glass, glass cleaning, and the packing of finished goods, which depart-

ments are connected with the main floor by elevators, front and rear. On the main floor are the flowing-rooms, drying-rooms, and the packers. On the floor above are the offices, chemical-room, emulsion-room, testing-room, etc., while the third floor is occupied in a variety of ways. The building is entirely new, and no expense has been spared in fitting it up with everything calculated to facilitate the work and to secure its excellent quality. Mr. J. E. BEEBE devotes his whole time now to the interests of the manufacture of the Beebe plate, testing every batch that is produced before permitting it to be offered to the trade. We wish the new establishment great success.—Mr. W. L. CHAMPLIN, Whitestown, N. Y., has invented one of the most convenient and ingenious vignetting attachments for photographic printing-frames which we have seen. A description of this useful invention will be found in our advertisement pages, together with a drawing, to which please refer. Mr. CHAMPLIN has covered the whole ground, in adapting his invention to use with Waymouth vignetting papers, which are the best vignetting devices in existence, as the tens of thousands sold annually testify. Judging from the way in which he is pushing, Mr. CHAMPLIN is undoubtedly making a great success with his invention, which he undoubtedly deserves. WILSON'S *Photographics*, fourth edition, is now in press, and will be ready soon after this meets the eye of the reader. The sale of this book has been unprecedented, compelling us to issue this fourth thousand long before we expected such a requirement. Last year it was purchased very largely by employers as a present to their employés, and we hope we may be pardoned for hinting, or for suggesting that similar action on the part of those who forgot to do it last year will do a great deal of good in many directions. We believe that any employer who places this four-dollar book in the hands of an employé, if the right material is in the employé, will receive forty dollars back for his investment before the end of the year.—Messrs. DOUGLASS, THOMPSON & Co, have favored us with a *Bureau of Information* for September. The Champion Pneumatic Exposer heads the list of novelties described in this number.—The African traveller Sigfried Hanger was recently murdered, and the following report concerning his death has been sent to the Geographical Society. "It appears that Herr Hanger was evidently the victim of his own courage. He remained alone after his servants had fled to Europe. Three Bedouins were arranged praying at sunset, while Hanger was at the same time taking a photograph of the

scene; all at once the Bedouins turned upon him from his back, and killed him." *Moral*: Never photograph sunsets, or Bedouins when at prayer. We have done both, but fortunately escaped.—*Photographic Mosaics* for 1883 is more than half in type, and soon after this reaches our readers it will be on its way to thousands who have already ordered it. If you would secure early copies, and know soon all the good that there is in it, be sure to send your half a dollar now, or if you desire one of the beautiful cloth-bound copies, it requires one dollar to receive it, including the postage. Frankly we do not believe that any edition of *Mosaics* ever excelled this in goodness. A great deal is written on that subject nearest to the heart of the photographer—the emulsion work, and by some of our best experts in that direction. A complete list of the contents of the book will be found in the advertisement, to which please refer—a review in our next number.—Messrs. CRAMER & NORDEN, St. Louis, Mo., inform us that they are now at home in their new factory, with a capacity ten times greater than ever, and will soon be able to furnish their celebrated plates in any quantity on short notice to their hosts of patrons throughout the country. This intelligence will be very gratifying, we know. These gentlemen we know to be exceedingly conscientious in the direction of their work, and exceedingly practical. We believe that no brand of plates in the market stands higher than theirs, though it would be safe to say this of any of the leading manufacturers of plates. We are glad to see this result of enterprise. Growth is always sure to follow conscientious attention to business, and a determination to produce the very best quality of goods as they generally do.—The Boston Photographic Association held its meeting at Mr. T. R. BURNHAM'S Studio, Tuesday Evening, October 3d. Messrs. BOWERS, BURNHAM, and Low gave descriptions of their travels and experience abroad this summer, and Mr. BURNHAM showed samples of his work made by himself while away. He also gave descriptions of several Parisian studios visited by him.—PECK'S pellicle foregrounds are becoming more and more popular on account of their durability and portability. They can be obtained by mail from any dealer, ranging in price from one dollar each, to nine dollars according to the size. The sizes run from a quarter size to 14 x 17 inches. SCOVILL MANUFACTURING COMPANY are the manufacturers.

SCOVILL'S Negative Washing Boxes are a great convenience, and recently much improved. Ask your dealer to send you one.

OBITUARY.—The many friends of Mr. G. G. FINN, the talented artist who designed the certificate of membership for the Photographers' Association of America, will be grieved to learn of his sudden death at his father's home in Elyria, Ohio, some few weeks ago. While superintending the interior decorations of Brainard's music rooms, he fell some four feet from a step-ladder, receiving, it was thought, but slight injury; but such was not the case. Death followed the accident, and art lost one of its most promising votaries. Mr. FINN for many years also had the reputation of being one of the most finished musicians in the State of Ohio. During his later years he devoted much time to the study of color, and since his death our good friend Mr. J. F. RYDER, has published a neat little monograph, written by Mr. Finn, entitled "The Analogy Between Sound and Color, and the Art of the Future." We shall presently make up an article including a portion of this precious little work, that our readers may share some of its advantages, or rather that they may all of them fall in love with it, and be tempted to send to Mr. RYDER fifty cents and secure a copy before his edition is gone. The product of the sale is entirely for the estate of Mr. FINN, and we hope it will be purchased liberally.

THE ART OF MAKING PORTRAITS IN CRAYON ON SOLAR ENLARGEMENTS, by E. LONG, will be sent on receipt of fifty cents, by EDWARD L. WILSON, Philadelphia. It is good and cheap. It treats of materials and tools; light; first movements; outlining; the crayon tint—the kid, etc.; hair; drapery; shading; stippling; stamp and pumice stone; background, and concluding remarks.

THE BLAIR TOUROGRAPH AND DRY PLATE Co., Boston, Mass., have just issued a very handsome catalogue of their manufactures, illustrated, which amateurs and buyers generally should examine. Also a handy little book of instructions (44 pages), entitled *Amateur Guide in Photography*. This last tells the whole story in plain language evidently written by one who is a skilful expert in all the details. The gentlemen who compose this company have done much to elevate our art, having begun the good work in the amateur line about three years ago. Mr. BLAIR called upon us recently and permitted us to see their new "Combination" camera box and improved holder. A 5 x 8 camera is made to work with single or double lenses, and so contrived that an extension may be affixed at the rear

(light and strong), which will enable one to make 8 x 10 pictures. This is an admirable improvement.

THE BLAIR *Holder* is also novel and ingenious, and is arranged so that 5 x 8 and 4 x 5 plates may be made with one holder. Moreover, when "loading" the holders with plates, instead of having a third slide to remove and replace, the holder is opened at the side and the plate *sprung* into place and made fast by a contrivance at the top. All these articles are made of the best quality, and must be found very handy and convenient. An examination of the cuts in the advertisement will explain further.

THE Editor of *Anthony's Bulletin* has awakened and acknowledged himself mistaken. So we will let him sleep on without further stirring up from us.

MR. J. H. DAMPF, Corning, N. Y., receives nearly a column and a half of praise from the *Democrat*, for his work and his establishment.

MR. EDWARD L. WILSON'S "Echoes from the Orient," will probably be renewed in our next issue. If there is room. We want our readers to share the pleasure we derive from our travels, as far as we can afford to give it, and, unless we hear that they are tired, will continue to enlighten them as to what we saw.

PHOTOGRAPHS OF THE ORIENT.—Our photographs of the Orient, stereoscopic size, are now for the market, and we will be glad to send a catalogue to any intending purchaser. The collection of Egypt, Arabia, and Palestine embraces over one thousand subjects.

ILLUSTRATED LECTURES.—Illustrated lectures are becoming more and more popular, the optical lantern being used to project the pictures upon the screen, while the lecturer delights the audience with his descriptions. Our new Oriental views supply rich material.

PHOTOGRAPHIC MOSAICS for 1883 is about half in type, and will be ready early in November. A partial list of the contents will be found advertised. It contains many splendid articles by distinguished photographers. Better order it early; 144 pages, fifty cents.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

Ye Monthly Bulletin
of **L. W. Seavey's Worksh.**
No. 8 Lafayette Place, N. Y.

EVERY photographer doing stylish work should have my latest great success,
THE PONY BASKET PHAETON.
PRICE, \$20.

Send for sample prints showing figures posed.

THE COTTAGE DORMER WINDOW,
(Exterior and interior) \$30.

Sample prints show subject posed.

Now is the time to order Winter Backgrounds.

L. W. SEAVEY,
8 Lafayette Place, New York.

WANTED.—A first-class Lambertype or carbon printer; must be thoroughly posted in every respect. Apply, with references, and stating salary, etc., to J. C. SOMERVILLE, St. Louis, Mo.

WANTED.—A No. 1 retoucher. Send samples of work, and state salary wanted. Address M. WOLFE, 106 S. Main St., Dayton, O.

THE PLAQUE.

Read Mr. Clench's Advertisement.

FOR SALE.—A good gallery in Charlestown, W. Va., the county seat of Jefferson County; 2200 inhabitants. Centrally located. No opposition in county. If sold by the 15th, will sell for \$50 cash and \$50 in six months. For further information address DARNELL & FOLTZ, Bedford, Bedford Co., Pa.

THE PLAQUE.

Read Mr. Clench's Advertisement.

BACKGROUNDS

PAINTED BY

→* W. F. ASHE *←

Are found in most of the best galleries, not only in the States, but abroad.

NEW BACKGROUNDS AND ACCESSORIES

OF ALL KINDS ARE

BEING CONSTANTLY INTRODUCED.

W. F. ASHE, *Scenic Artist,*

106 Bleecker St., New York,

U. S. A.

INDUCEMENT EXTRAORDINARY.—\$2000 will purchase a long-established photographic gallery on the *leading business street* of Brooklyn, N. Y. Such an opportunity is seldom offered, especially at this time of the year. For particulars address T. LOOMIS,

38 Concord St., Brooklyn, N. Y.

THE PLAQUE.

Read Mr. Clench's Advertisement.

THE new book by E. Long, of Quincy, Ill.—Instructions for Working Solar Prints in Crayon—is just what is wanted by every photographer. It *exactly* covers the ground. For sale, also, by Edward L. Wilson, Philadelphia. Price, 50 cents.

WANTED.—In Philadelphia, two or three good, fast mounters, males. Stereo work. Address MOUNTER,

Care Philadelphia Photographer.

THE PLAQUE.

Read Mr. Clench's Advertisement.

WANTED.—Immediately, a thoroughly competent printer of good habits; must be able to take full charge of the department.

C. F. CONLEY, Successor to Warren,
Boston, Mass.

THE PLAQUE PHOTOGRAPH, PATENTED.—Photographers desiring a novelty to raise prices on, and something very attractive to the public, will please investigate the Plaque. See other advertisement. Address F. B. CLENCH,
Lockport, N. Y.

THE PLAQUE.

Read Mr. Clench's Advertisement.

MAKE YOUR OWN ENLARGEMENTS.—The Patent Gem Solar Camera will print the finest enlargements on albumen, platinum, or plain paper. Only \$60. Send for reduced price-lists of arger instruments. D. A. WOODWARD,
Baltimore, Md.



WILSON'S PHOTOGRAPHICS

Shows you how to group and pose children naturally and gives fine examples of work. Read the partial index herein. \$4.

THE PLAQUE.

Read Mr. Clench's Advertisement.

PHOTOGRAPHS finished in ink and water color on plain or albumen paper.

MARY B. ATKINSON,
215 Spruce St., Phila.

Wilson's Photographics. Ready.
Price, \$4.00.

PHOTOGRAPHERS AND DEALERS, ATTENTION.—Thirty assorted artistic views of Washington for \$2.00.

RANALD DOUGLAS,
819 Market Space, Washington, D. C.

NOTICE.

THE WONDERFUL EURYSCOPES and NEW PORTRAIT LENSES.

Just received, a large invoice of the above Lenses. Those who have not succeeded in getting them, will do well to send in their orders at once.
BENJAMIN FRENCH & Co., Boston.

ADDRESS THOMAS POWERS, 392 Bowery, New York City, Secretary of Association of Operative Photographers of New York, for operators, printers, and retouchers.

THE PLAQUE.

Read Mr. Clench's Advertisement.



WILSON'S PHOTOGRAPHICS

Is the most complete, thorough, photo-instruction book ever published. Third thousand in store. See advertisements. \$4.

NOTICE OF REMOVAL.—Mrs. Clarke, Artist, late of 561 Druid Hill Avenue, Baltimore, begs to inform her friends and the photographic profession that she has removed to 2104 North 20th St., Philadelphia, Pa., where she will be happy to receive any commission for water-color painting. Terms, etc., on application to Mrs. Clarke, or to the office of the *Philadelphia Photographer*.

TAE PLAQUE.

Read Mr. Clench's Advertisement.

THE NEW

EURYSCOPE.

TRY this new lens, and you will never buy any large portrait lenses. Voigtlander & Son's No. 7, and the smaller sizes, are very quick-acting, but as regards large-sized plates, the Euryscopes are far superior for groups, panel pictures, and large heads.

THE PLAQUE.

Read Mr. Clench's Advertisement.

S. G. NIXON, Portrait Artist, 813 Arch Street, Philadelphia, Pa. Solar enlargements finished in crayon, water color, and Indian-ink in true artistic style, and the likeness and expression faithfully preserved. Also small colored and Indian-ink work, etc. Terms moderate.

THE PLAQUE.

Read Mr. Clench's Advertisement.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

A young man, of one and a half years' experience in a No. 1 gallery, desires a situation with some first-class photographer, to learn more of the art. Understands everything about the gallery, from the broom to the finisher. Address H. B. Gaff, P.-O. Box 479, Hamilton, Ohio.

Wanted, by a young man, a permanent position in a first-class gallery. Experience over eleven years. No postals. Address F. C., care of N. S. Curtiss, No. 16 S. Salina St., Syracuse, N. Y.

Situation desired as general assistant in a gallery where there is work to do, by a married man. No liquor or tobacco used. Age twenty-six, and do not wish any Sunday work. Ten years in the business. Address C. S., Box 340, Lockport, N. Y.

An operator accustomed to first-class trade is open for engagement, either on salary or share. Address F. Toumpkins, Brooklyn, N. Y.

THE PLAQUE.

Read Mr. Clench's Advertisement.

Wanted, by an experienced photographer, a position in a first-class gallery North, or will take a good place on shares. References, etc. J. A. Benjamin, Charlotte, N. C.

A first-class retoucher wishes a situation either in New York or within fifty miles of the city. Address A. Asprey, Brownsville, Pa. Box 306.

Situation by a first-class operator. Can work at all branches if required, and do clean work. Seventeen years' experience; age, 37; wages, \$16 per week. Address T. Tyler, Easton, Pa.

Situation wanted by a fair retoucher and printer; can operate some, and is willing to be useful. Address Photographer, P.-O. Box 104, Oxford, Chester Co., Pa.

An artist (meaning business), from the art college in Berlin, Germany—quick and good in all branches, ink, water, oil, crayon, pastel, etc.—wants situation. Address, Schlickeisen, Jersey City, N. J.

Wanted, situation as a first-class printer. Six years' experience. First-class houses only need address Jake Wallace, Box 756, Brantford, Canada.

By a young man, situation as assistant with first-class artist. Can give first-class references. Address at once, Box 120, Bloomsburg, Pa.

Wanted, by an artistic retoucher, crayonist, and colorist, a permanent position in a first-class gallery. Address, stating salary, etc., "Retoucher," care of J. D. Merritt, 905 Pennsylvania Avenue, Washington, D. C.

THE PLAQUE.

Read Mr. Clench's Advertisement.



**J. L. CLARK,
GOLD AND SILVER REFINER,**

ASSAYER AND SWEEP-SMELTER,

REMOVED TO

823 Filbert St., Philadelphia, Pa.

RETURNS MADE IN STRICTLY PURE CHEMICALS.

REFERS TO, BY PERMISSION:

JOHN CARBUTT, Dry Plate Manufacturer, Philada.

WM. H. RHOADS, Photographer and Artist, Philada.

GILBERT & BACON, Photographers and Artists, Philada.

WM. H. CLIFFORD, Photographer and Artist, Philada

**ALBERT MOORE THE SOLAR ENLARGER,
THE LONGEST, LARGEST, AND BEST.
828 Wood Street, Philadelphia.**

THE NEW AND POPULAR CANDIDATE. THE BLAIR COMBINATION CAMERA.

The most perfect, handsome, and useful Camera ever placed on the American market. It is fitted with rack and pinion, improved set-screw, rising and falling front (both ways) single swing, stereo. division, extra front for stereo. lenses, and in every detail is of the highest order of workmanship. Made of the best of mahogany and cherry, highly polished, and handsomely trimmed with nickel-plated mountings.

It is acknowledged by manufacturer, dealer, and user to be A1, in every respect. **THE COMBINATION** consists in our **PATENT EXTENSION**, which admits making an 8 x 10 picture on a 5 x 8 Camera, etc. This is one of the simplest devices, which accomplishes a great end, ever employed in Photography, and makes the B. C. C. an instrument unequalled in America.

The **Plate Holder** is another model of simplicity and perfection. No grooves to fit the plate into, no partition to slide in, no possible chance for the plate to get out after once placed in position, fitted for rests to any size under that of the Plate Holder: thus with a 5 x 8 Combination Camera and Extension, all sizes from 3½ x 4½ up to 8 x 10 can be taken. Both Camera and Extension are each enclosed in a fine imt. Morocco case.

-> * PRICE LIST * <-

Camera Proper, 5 x 8, \$28 00 Extension for same, 8 x 10, 8 00 Complete in one order, 35 00 Camera Proper, 4 x 5, 20 00 Extension for same, 5 x 8, 8 00 Complete together, 25 00	Extra Plate Holders, 8 x 10, \$3 00 Extra Plate Holders, 5 x 8, 2 50 Extra Plate Holders, 4 x 5, 2 00 Rests, 3½ x 4½, 4 x 5, 4½ x 6½, 4½ x 5½, each, 30
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THE TRIUMPH CAMERA of same style and finish as the Combination, but smaller in outside dimension and not adapted for the extension. Price, \$27.00.

THE KNOCKDOWN CAMERA. The Camera for the morning walk, weighs 1½ lbs., and carries eight plates, supplied with Extension Tripod and Acromatic Lens. Price, \$10.00.

THE CELEBRATED TOUROGRAPH. Price, complete with Lens and Tripod, from \$33.00 to \$15.00. Tripods all styles, Dry-Plate Cameras, and Outfits. **THE TRIUMPH PLATES.**

A trial order will convince you that we mean to be up to the times in work, prices, and liberality of dealing.

THE BLAIR TOUROGRAPH AND DRY-PLATE CO.,

Nos. 471 & 475 TREMONT STREET, BOSTON, MASS.

ANNOUNCEMENT.

THE BLAIR

Tourograph and Dry-Plate Co.

Are prepared to say, that they now manufacture one of the most practical, useful, light, durable, and the

→:HANDSOMEST CAMERA:←

Ever put on the American market; and at a very moderate price, quality of work considered. To prove that we are honest in what we say, we will ship to any responsible dealer a sample order of the "Blair Combination Camera," and allow ten days for approval.

If not all that we claim for it, it can be reshipped to us and we will pay charges. Parties so ordering must furnish us with satisfactory references or remit one-half the list price of goods ordered, which will be returned to them if not satisfactory.

We offer this opportunity believing that **not one will be returned.** Retail customers are requested to apply to their dealer for our goods, as nothing can be bought of us at a discount from list price. If your dealer does not carry a stock of our goods, we will be happy to fill your order with the privilege of examining before paying, or the money refunded **if not what we claim.**

Our factory is now one of the most complete in the country, and the workmen of the highest reputation.

Our machinery is new and of the most improved and perfect pattern, having been made especially for our use. We occupy three floors 85 x 30, fully equipped, with every appliance for doing business with dispatch. Although having done a successful business for over ten years, this is our first announcement to the trade; and by now carrying a large stock hope to fill all orders promptly.

Yours respectfully,

THE BLAIR TOUROGRAPH AND DRY-PLATE CO.,

Nos. 471 & 475 TREMONT STREET, BOSTON, MASS.

NEIDHARDT'S GELATINE DRY PLATES.

GUARANTEED EQUAL TO ANY IN THE MARKET.

The magnificent display of pictures made on these plates by various photographers at the INDIANAPOLIS CONVENTION last month, convinced all who saw them that the

"NEIDHARDT PLATE CAN'T BE BEATEN."

FORMULA FOR WORKING THEM, FREE.

 **TRY OUR "NEW" DEVELOPER.** 

PRICES OF NEIDHARDT'S PLATES.

Size.	Per doz.	Size.	Per doz.
$3\frac{1}{4} \times 4\frac{1}{4}$	\$0 65	$6\frac{1}{2} \times 8\frac{1}{2}$	\$2 40
4 x 5	95	8 x 10	3 60
$4\frac{1}{2} \times 5\frac{1}{2}$	1 00	10 x 12	5 20
$4\frac{1}{4} \times 6\frac{1}{2}$	1 25	11 x 14	6 80
5 x 6	1 35	14 x 17	10 00
5 x	1 65	17 x 20	17 50
$5\frac{1}{2} \times 7$	1 75	18 x 22	20 00
5 x 8	1 85	20 x 24	24 00

11 x 14 and larger packed in boxes containing half-dozen.

MANUFACTURED BY THE

GARDEN CITY DRY PLATE COMPANY,

No. 361 Milwaukee Avenue, Chicago.

Order from your stock-dealer; if they can't supply you, apply to us.

AMATEUR PHOTOGRAPHIC OUTFITS.

I supply OUTFITS

At \$10.00, \$12.00, \$13.50, \$18.50, \$27.00, \$41.00, and \$50.00,
and at all prices above.

I supply EQUIPMENTS

At \$12.25, \$15.00, \$20.50, \$21.50, \$25.00, and \$31.50,
and at all prices above.

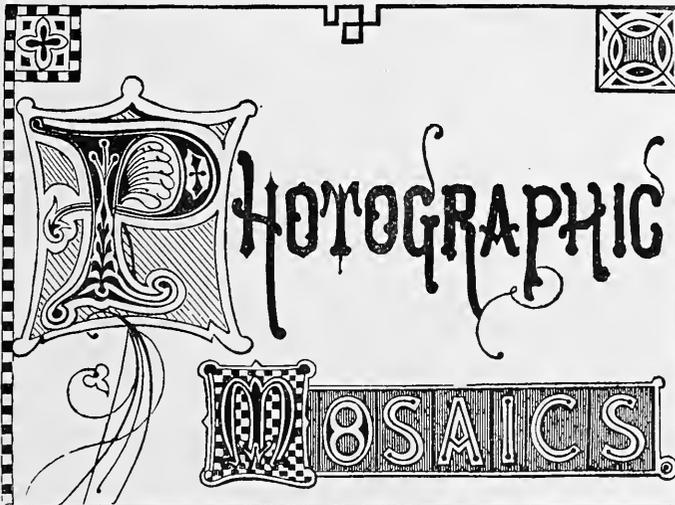
CHEMICALS, PAPER, LENSES, ETC.

BOOKS OF INSTRUCTION

At 50 cents, 75 cents, and up to \$4.

Lantern Lecturers and Exhibitors can often secure some splendid negatives during their travels which can be utilized for making slides by sending the negatives to me. In such cases one need only expose the plates. I am prepared to do all the rest on fair terms.

EDWARD L. WILSON, 912 & 914 Chestnut Street, Phila.



This Favorite Annual

WILL BE READY FOR DELIVERY NOVEMBER 15th.

BETTER THAN ANY OF ITS PREDECESSORS. IT IS CALLED THE CHEAPEST PHOTOGRAPHIC LITERATURE IN THE WORLD.

144 PAGES.—50 CENTS; CLOTH COVER, \$1.00—144 PAGES.

Two thousand copies were ordered by one dealer before the book was half printed, and nearly three thousand are now sold.

PARTIAL CONTENTS.

Concerning 1882.
 On Intensifying Bromo-Gelatine Plates. Wm. H. Rau.
 The Yellow Precipitate from the Ferrous Oxalate Developer. By H. D. Garrison, M.D.
 Producing Artistic Effects in Photography. By W. Irving Adams.
 The Silver Printing Bath. By W. H. Sherman.
 Something Practical. By M. L. Daggett.
 Negative Retouching. By Wm. McLaughlin.
 A Method of Mounting Photographs on Thin Cardboard or Paper, so that they will not warp or cockle. By E. Beirstadt.
 Science Misapplied. By E. Wallace, Jr.
 Things I Don't Like to See. By J. H. Hallenbeck.
 A Word for Dr. Van Monckhoven's Ferrous Oxalate Developer. By J. H. Scottford.
 Dry-Plate Notes. By C. F. Richardson.
 On the Use of Salicylic Acid in the Pyro-Developer. By D. Bachrach, Jr.
 Yellow Glass for the Emulsion Dark-Room. By J. Harmanus Fisher.
 A Portable and Folding Dark-Room for Dry-Plate Work. By Geo. H. Johnson.
 Oxalate or Pyro? By Geo. H. Monroe.
 Dry-Plate Practice. By E. P. Libby.
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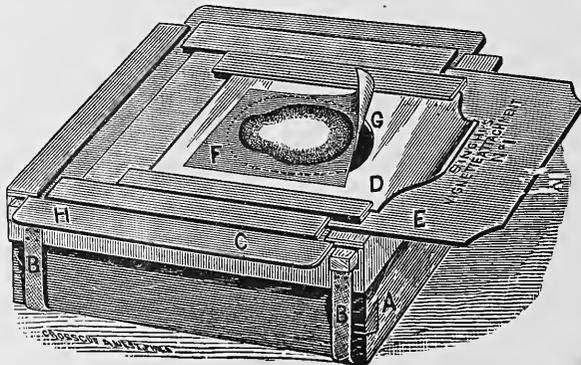
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menized Paper; Washed Sen-
sitive Paper.
Cutting the Paper.
The Printing-boards.
Keeping Tally.
Vignette Printing-blocks.
Treatment of Negatives before
Filling of the Boards. [Printing.
Fitting Vignette-boards to the
Negatives for Printing.
Medallion and Arch-top Printing.
Fancy Printing.
Vignette Cameo and Medallion
Vignette Cameo Printing.
Printing the Bendann Back-
grounds.

CONTENTS.

Printing Intense Negatives.
Printing Weak Negatives.
A Few More Remarks about
Printing--Treatment of Broken
Negatives.
Cutting the Prints.
Washing the Prints.
Acidifying the Prints.
Toning Baths.
Artistic Toning.
Fixing Baths and Fixing Prints.
Washing the Prints.
Mounting the Prints.
Finishing the Prints.
Salting the Paper. [Paper.
Positive Baths for Plain Salted
Silvering Plain Salted Paper.
Drying, Fuming, and Cutting the
Paper. [Printing.
Treatment of the Negatives before
Printing-in False Backgrounds.
General Plain Paper Printing.

Waymouth's Vignette Papers.
Further Treatment of the Prints
after Printing.
Causes of Failures in Albumen
and Plain Paper Printing.
Selection of the Porcelain Plates.
Cleaning the Porcelain Plates.
Albumenizing the Porcelain Plate
Making the Porcelain Collodion.
Coating, Fuming, and Drying the
Plates.
Porcelain Printing-boards.
Placing the Sensitive Plate on the
Board for Printing.
Printing Vignette Porcelains.
Printing Medallion Porcelains.
Washing the Porcelains.
Toning the Porcelains.
Fixing the Porcelains.
Final Washing of the Porcelains.
Drying and Tinting the Porcelains
Varnishing the Porcelains.
Causes of Failures in Porcelain
Glaze Photographs. [Printing.

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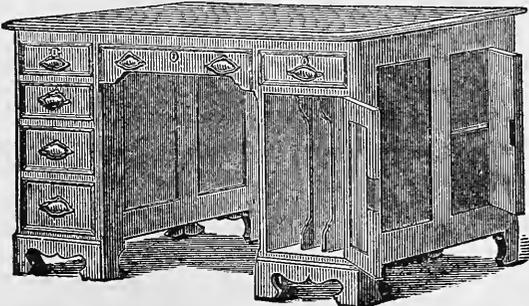
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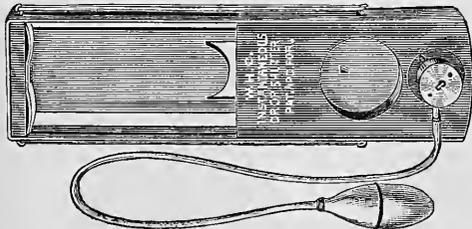
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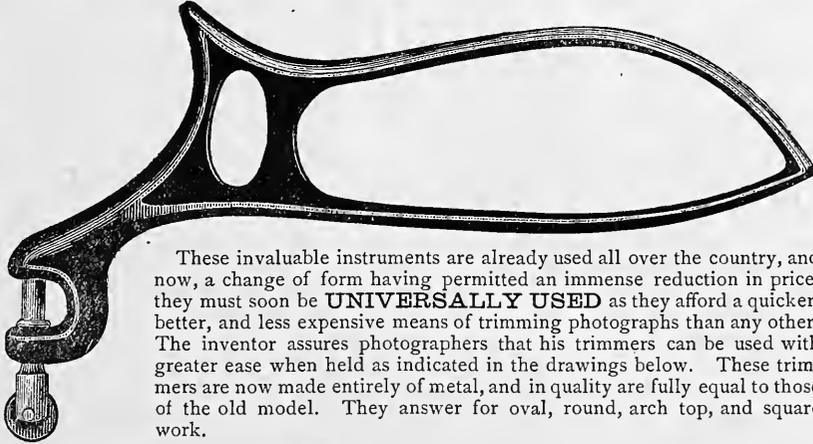
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 DEAR SIR: The No. 53 Centennial Posing Chair is entirely satisfactory. I must say I think it the best operating Chair in the market, and it should find a ready sale. E. B. IVES.
- MR. C. A. SCHINDLER. **MCDONALD.** SOUTH BEND, IND., November 17th, 1881.
 DEAR SIR: Am well pleased with the Chair [No. 53 Centennial]; it is the finest Posing Chair I have ever seen, by a large majority, and should be in every photographic studio in the country. I hope you may have a large sale on them. A. McDONALD.
- MR. C. A. SCHINDLER. **BILBROUGH.** DUBUQUE, IOWA, November 19th, 1881.
 DEAR SIR: The Chair came all safe yesterday; and am well pleased with it; everything complete as represented. Should I require anything else in the future, I will remember you. E. BILBROUGH.
- MR. C. A. SCHINDLER. **WATSON.** DETROIT, MICH., December 8th, 1881.
 DEAR SIR: The Antique Chair [No. 57] ordered of you gives great satisfaction, both for its artistic design and execution, and its perfect adaptation for photographic uses. J. E. WATSON.
- SCHINDLER'S [No. 53] POSING CHAIR. **WILSON.** "PHILA. PHOTOGRAPHER," October, 1881.
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- MR. C. A. SCHINDLER. **BARR.** SAN ANTONIO, TEXAS, November 21st, 1881.
 DEAR SIR: I like the No. 53 Centennial Chair the best of any chair I have ever used. The No. 23, Child's Chair, is very good, and the platform does finely. Have not yet been able to sell my Bowdish Chair. D. P. BARR.
- C. A. SCHINDLER, ESQ. **WALZL.** BALTIMORE, MD., December 6th, 1881.
 DEAR SIR: Your new Posing Chair [the No. 53 Centennial] I consider the most stylish and gracefully designed accessory for the studio; it suggests positions easy and natural, and the shape makes it non-conventional. RICHARD WALZL, Editor *Rays of Light*, Baltimore, Md.
- MR. C. A. SCHINDLER. **PLACE.** WARSAW, IND., December 9th, 1881.
 DEAR SIR: I am using one of your No. 53 Centennial Chairs, and find it superior over everything I have ever used or seen, and it is especially well adapted for groups of children. FRANK A. PLACE.
- SCHINDLER'S INDUSTRIAL ART WORKS. **FITZGIBBON.** ST. LOUIS, December 8th, 1881.
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- DEAR MR. SCHINDLER. **SCHLEIER.** NASHVILLE, TENN., December 11th, 1881.
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- MR. C. A. SCHINDLER. **BAKER.** COLUMBUS, O., January 4th, 1882.
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- MY DEAR MR. SCHINDLER. **ROCHER.** CHICAGO, January 24th, 1882.
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- MR. C. A. SCHINDLER. **SHERMAN.** MILWAUKEE, WIS., October 14th, 1882.
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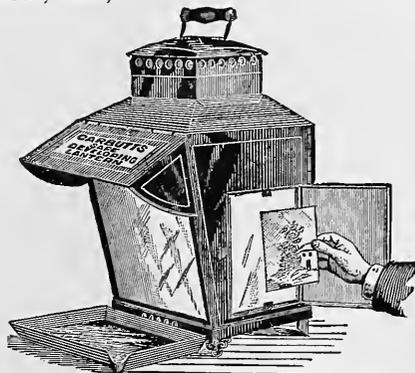
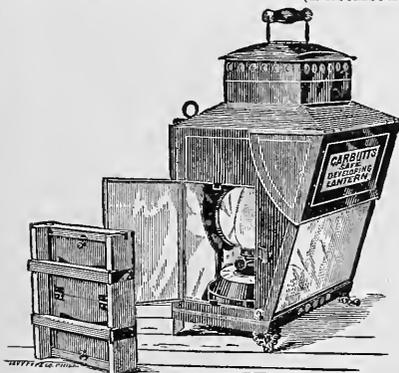
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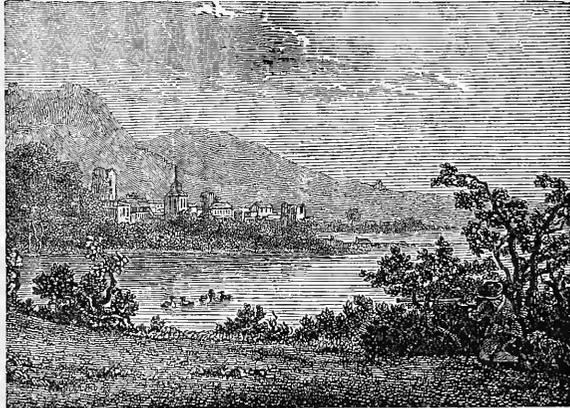
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CONTENTS.

CHAP.	
I.	Introductory.
II.	The Faculty of Artistic Sight.
III.	Balance of Lines and Contrast.
IV.	Balance—Example.
V.	Balance—Examples—(continued).
VI.	Unity.
VII.	Examples—Expression.
VIII.	Practice—The Choice of a Subject.
IX.	Simple Rules.
X.	Figures in Landscape—Truth.
XI.	The Sky.
XII.	The Legitimacy of Skies in Photographs.
XIII.	The Composition of the Figure.
XIV.	Pyramidal Forms.
XV.	Variety and Repetition.
XVI.	Variety and Repetition (continued)—Repose—Fitness.

CHAP.	
XVII.	Portraiture.
XVIII.	Portraiture—The Management of the Sitter.
XIX.	Portraiture—The Pose.
XX.	Portraiture—Groups—Proportion.
XXI.	Backgrounds.
XXII.	Accessories.
XXIII.	Some Old Notions Touching Portraiture.
XXIV.	Chiario-oscuro.
XXV.	Chiario-oscuro—Detail or Definition.
XXVI.	Chiario-oscuro—Various Arrangements of Light and Shade.
XXVII.	Chiario-oscuro—Various Arrangements of Light and Shade (continued).
XXVIII.	Chiario-oscuro—Breadth.
XXIX.	Chiario-oscuro—Portraiture—The Studio.
XXX.	Chiario-oscuro—General Considerations.
XXXI.	Conclusion.

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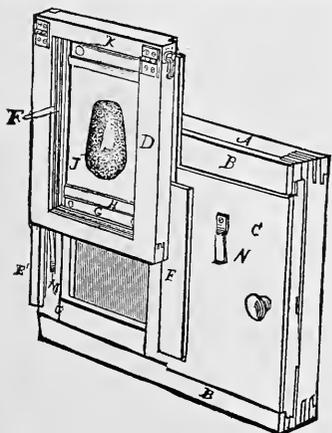
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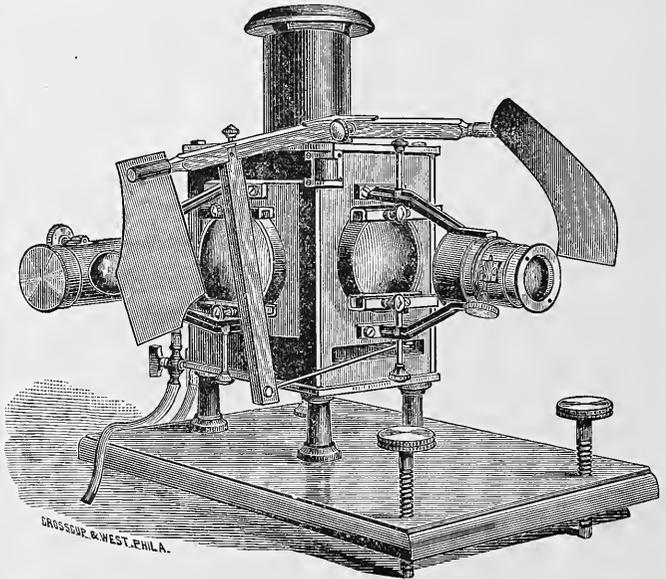
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SUMMARY OF CONTENTS.

	PAGE		PAGE
And What For 1883?	353	The Growth and Outgrowth of Amateur Photography,	371
Photographic Mosaics, 1883,	354	From the Transit of Venus Expedition. By WM. BELL,	372
Obituary—DR. VAN MONCKHOVEN,	354	Voices from the Craft,	373
Photographers <i>versus</i> Artists. A Question that Must be Settled. By D. BACHRACH, JR.,	356	Society Gossip,	374
Thoughts about Gelatine Plates. By DR. E. WALLACE, JR.,	358	Our Picture,	376
Echoes from the Orient,	358	Economy in Washing Prints. By R. A. KENDALL,	376
Dr. Vogel's New Book,	362	Delving Among the Developers,	376
Praise from the Press,	367	A Few Hints. By J. H. SCOTFORD,	380
An International Photographic Association. By LEON VIDAL,	368	A Whole Lot of Things. By A. E. ISAACS,	381
German Correspondence. By DR. H. W. VOGEL,	368	Editor's Table,	382
A Simple Developer. By DAVID COOPER,	371		
EMBELLISHMENT.—A Mosaic of Plaques. By F. B. CLENCH, Lockport, N. Y. Negatives and Prints by EDWARD L. WILSON, Philadelphia.			

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INDEX PAGE FROM WILSON'S PHOTOGRAPHICS.

- Intensifier, The.
 Ammonia and Mercury.
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 Ferrid Cyanide.
 Iron and Acid.
 Perchloride of Iron.
 Permanganate of Potash.
 Pyrogallie Acid.
 Schlippe's Salts.
 Silver and Acid.
 Interior Work.
 Kaolin, Rectifying Printing-Bath with.
 Landscape Apparatus.
 Photography.
 Views, Formula for.
 Lantern Slides and Enlargements.
 Leaking of the Glass Studio.
 Lens or Objective, The.
 Lenses, Angle of View Possible with.
 Choice of.
 Forms of.
 Light and Accessories.
 and Shade, or Chiaro-oscuro.
 Reflected.
 Lighting, Rembrandt's Style of.
 "Lightning" Processes.
 Linen, Printing on.
 Lubricating the Prints.
 Managing the Model.
 Manipulations, The.
 Manipulatory Miseries.
 Marbled Appearance of the Paper.
 Red Lines on Prints.
 Measles in Prints.
 Measles or Mottles on Prints.
 Measuring, Metrical.
 Medallion Printing.
 "Megatypes."
 Metallic Spots in Prints.
 Model, Study the.
 Mounting and Finishing.
 Paste.
 without Cockling.
 Nature, Study.
 Negative, A Generally Wretched.
 Negatives, Black and White.
 Defects in.
 "Doctoring" for Printing.
 for Solar Printing.
 Preserving of.
 Printing Dense.
 Printing Weak.
 Removing Stains from.
 Network, Formation on the Film of.
 Objective or Lens, The.
 Objects, Distances of.
 Only Lines in Negatives.
 Paque for Negatives, Gihon's.
 Outside Photography.
 Chemistry of.
 Work, Art Principles in.
 Work, Exposure.
 over-Exposure of Bromo-Gelatine Plates.
 Paper, Cockling of the.
 Drying the.
 Expansion and Contraction of.
 Fuming the.
 Keeping White the.
 Marbled Appearance of the.
 Sensitizing the.
 Woolliness of the.
 Perspective.
 Photography, Landscape.
 Phototypes, Basis for.
 Exposure of the Negatives for.
 Husnik's Substratum for the Plates for.
 Inking the Films for Printing.
 Plain Paper, Printing on.
 Platinotypes, Sensitizing the Paper for.
 Cleaning and Washing.
 Development of.
 Exposure of the Paper.
 Porcelain, Printing on.
 Posing, Suggestions about.
 Preserving Negatives.
 Printing, Art in.
 by the Solar Camera.
 Dense Negatives.
 Development Process of.
 Flat Negatives.
 Medallions.
 on Albumen Paper.
 on Various Surfaces.
 Stereoscopic Views.
 Temperature in.
 Vignettes.
 Weak Negatives.
 Printing-Bath, The.
 Decolorizing the.
 Strengthening the.
 Printing-Room, The.
 Prints, Acidifying the.
 Blistering of the.
 Burnishing the.
 Defectively Toned.
 Drying the.
 Encaustic Paste for.
 Fading of the.
 Fixing.
 Glace.
 Imperfect Washing of the.
 Lubricating.
 Measled or Mottled.
 Metallic Spots in.
 Refuse to Tone.
 "Spotting" the.
 Touching Out.
 Treatment with Alum of the.
 Trimming.
 Warm-Water Washing of.
 Washing in "Lead Water."
 Washing the.
 With Red Marbled Lines.
 Yellowness of the.
 Productions of Photography, The.
 Public, Relation of the Photographer to the.
 Pure Whites in Prints.
 Red Patches on Prints.
 Reducing Process for Solar Negatives.
 Reinforcing the Negatives.
 Rembrandt's Style of Lighting.
 Removing Stains from Negatives.
 Retouching Bromo-Gelatine Plates.
 Process, Solar Negative.
 Robinson's Print Trimmer.
 Screens and Curtains.
 Sensitizing Paper for Platinotype the Paper.
 the Plate.
 Shortening the Exposure.
 Silver Iodide, to make.
 Saving, Method of.
 Solutions, Volumetric Test of.
 Sky and Clouds, The.
 Softness in Lighting.
 Solar Camera Printing.
 By Artificial Light.
 Camera Printing Negatives, re touching.
 Negative Reducing Process.
 Retouching Process.
 Stains from Negatives, Removing on the Hands.
 Stereoscopic Views, Printing.
 Negatives Preparing.
 "Stop," Use of the.
 Streaks and Stains in Negatives.
 Strengthening Gelatine Emulsion Plates.
 the Printing-Bath.
 Studio, the Glass.
 Construction of the.
 Curtains.
 How to Build a.
 Leaking of the Glass.
 with Curved Light.
 Working Plans for Construction.
 Subject, Choice of.
 Treatment of.
 Table for Converting Centigrade into Fahrenheit.
 for Converting Cubic Centimetres into Ounces, etc.
 for Converting Metrical to Troy.
 Millimetres into Inches, etc.
 Temperature in Printing.
 Tent, The Dark.
 Testing of Silver Solutions.
 Toning the Prints.
 Bath, Treatment of the Gold.
 Defective.
 Solutions.
 Touching out Prints.
 Transfers, Collodion, Iodizers for.
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 Gelatine Paper for.
 Printing.
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 for the Magic Lantern, To make Treatment of the Subject.
 Use of the Diaphragm.
 Varnishes and Varnishing.
 Ventilation of the Dark-Room.
 Views of Interiors.
 Exposure for.
 Figures in.
 Vignette Printing.
 Paper, Waymouth's.
 Wastes and their Worth. [of.
 Waymouth's Vignette Papers, Use
 Weakness of the Film.
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S. P. C. FERRO-PRUSSIAN PAPER OUTFIT for Printing and Mounting 4 x 5 Blue Print Pictures. 1 4 x 5 Printing Frame; 1 4½ x 5½ S. P. C. Vulcanite Pan; 3 doz. 4 x 5 S. P. C. Ferro-Prussian Paper; 2 doz. sheets 6½ x 8½ Card Board; 1 Glass Form (for trimming prints); 1 Robinson's Straight Trimmer; 1 Half-pint Jar Parlor Paste; 1 One-inch Paste Brush. Price, complete, \$2.80. Securely packed in a paper box.

- S. P. C. FERRO-PRUSSIAN PAPER OUTFIT** for Printing and Mounting 5 x 8 Blue Print Pictures. This Outfit is like the one above, but with Printing Frame, Vulcanite Tray, Ferro-Prussiate Paper, and Card Board adapted to 5 x 8 Pictures. **Price, complete, \$3.50.** Securely packed in a paper box.
- S. P. C. SENSITIZED ALBUMEN PAPER OUTFIT** for Printing, Toning, Fixing, and Mounting 4 x 5 Pictures. 1 4 x 5 Printing Frame; 1 5 x 7 Porcelain Pan, Deep; 1 5½ x 4½ S. P. C. Vulcanite Tray; 2 doz. 5 x 8 S. P. C. Sensitized Albumen Paper; 1 bottle French Azotate (for toning); 1 bottle Chlor. Gold, 7½ grs. (for toning); 1 2 oz. Graduate; 1 lb. Hyposulphite of Soda; 2 doz. sheets 6½ x 8½ Card Board with Gilt Form; 1 Half-pint Jar Parlor Paste; 1 1½ inch Bristle Brush; 1 Glass Form (for trimming prints); 1 Robinson's Straight Trimmer. **Price, complete, \$4.75.** Securely packed in a paper box.
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- EQUIPMENT A-A-A.** Complete in every requisite for making the highest-class pictures. Consisting of *Apparatus* Outfit A, \$10.00; also, 1 *Chemical* Outfit 4 x 5, \$6.50; 1 *Sensitized* Outfit 4 x 5, \$4.75. **Price, \$20.50.**
- EQUIPMENT B-B-B.** Complete in every requisite for making the highest-class pictures. Consisting of *Apparatus* Outfit B, \$12.00; also, 1 *Chemical* Outfit 5 x 8, \$7.50; 1 *Sensitized* Outfit 5 x 8, \$6.00. **Price, \$25.00.**
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5 x 8	" " 1 00	Quart.....	" " 0 75
6½ x 8½.....	" " 1 10	Two Quarts.....	" " 1 00
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PRICE OF MORRISON'S WIDE-ANGLE LENSES.

						Price.
No. 1,	$\frac{3}{4}$	diameter of Lens,	4 x 4	inch Plates,	3 inch Equiv. Focus, each,	\$25 00
No. 2,	1	" "	4 x 5	" "	$3\frac{1}{2}$ " " "	25 00
No. 3,	1	" "	$4\frac{1}{2}$ x $7\frac{1}{2}$	" "	$4\frac{1}{4}$ " " "	25 00
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FOR PORTRAITURE OR VIEWS.

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The Lenses are especially designed for Stereoscopic Photography, and are so constructed that they will work well for interiors or exteriors.

They are particularly adapted for instantaneous work.

Diameter of Lenses, $1\frac{1}{2}$ inch; focal length, $3\frac{1}{2}$ inches.

By removing the back lens and substituting the front combination, a focal length of $5\frac{1}{2}$ inches is obtained.

They are supplied with six Waterhouse Diaphragms in Morocco Case.

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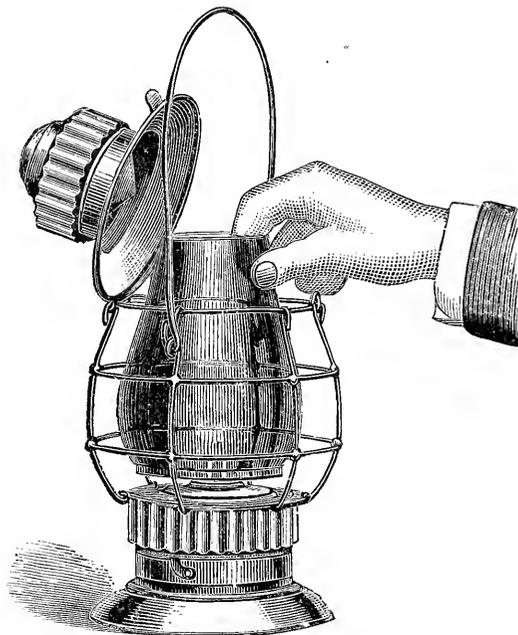
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Since the introduction of Gelatine Dry Plates they have been vastly improved, and the special apparatus or appliances made to use with them have also undergone changes for the better.

The Dry-Plate Lantern but a short time ago devised and introduced by us, which has met with a large sale, is now to be set aside, and we shall make and sell the improved one illustrated here,

PRICE, \$2.00 EACH.



PRICE, \$2.00 EACH.

which has greater illuminating power, a hinged top, and is in several respects vastly improved over the old pattern.

The glass is easily lifted out, a decided advantage when cleaning it, and if desired a white globe may be substituted in place of the ruby one. Lamp oil will be used instead of kerosene, and thus a disagreeable odor and much smoke be done away with.

The improved Lantern is safer than many others because of its height and vent, which remove the liability to overheating. The wire guard is made strong enough to protect the ruby globe, and it does not stop off the light to any appreciable extent.

By patented devices the top vent and the lower draft holes are so constructed that no white rays can escape through them, and thus the Lantern is perfected for use in the dark-room.

SOME POINTS ABOUT THE IMPROVED LANTERN.

It is readily extinguished.
 It is not liable to crack the glasses.
 It requires less than ordinary care to keep clean.
 It is simple and easily understood.
 It is not liable to get out of order.
 It wants no skill, care, or attention in use.
 It gives at all times a symmetrical flame of maximum size.

It requires only to be kept in oil.
 It maintains a full and brilliant flame as long as the oil lasts.
 It is easy to wick.
 It is conveniently lighted.
 It is provided with guards to prevent breakage of the glass.

For sale by Photographic Stock-Dealers, and the

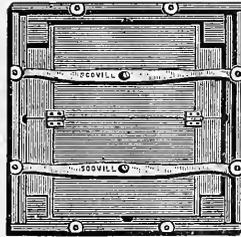
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PRINTING



FRAME.

This Frame is square, and just as it is shown in the accompanying illustration. It is made with double corners, and in utility combines the action of the regular and the lengthwise Printing Frames. The back also is square, with small blocks cut out to fit the corners, thus allowing the back to be placed upon the negative so that the springs and hinges will extend either lengthwise or crosswise of the subject. The advantage of this action will easily be perceived.

Suppose the negative of a standing figure to have been placed in the Atwood Frame and the back put in with the springs parallel to the length of the subject. Either half of the backboard can be opened and thrown over on the other, in this manner allowing such an examination of the print as to show a view from the head to the foot.

Again, in printing from a group negative the back of the Atwood Frame can be placed to open crosswise of the negative, thus giving an opportunity when examining the print of seeing all the faces.

In printing a landscape where cloud negatives are used, and the back has been set in the manner just described, it is possible to contrast the sky with the other features of the view on the print.

There is no reason why prints from two 5 x 8 negatives of different subjects may not be made at one time in an 8 x 10 Atwood Frame. Other good uses will be apparent, and we need not enumerate them. The back can be made to open two-thirds instead of at the centre where so desired and ordered.

PRICE LIST

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Size for 1-2 negatives, each,	\$0 75
" 4 x 4 " " 	90
" 8 x 10 " " 	1 20
" 10 x 12 " " 	1 60
" 11 x 14 " " 	2 75
" 13 x 16 " " 	3 50

Supplied by Photographic Stock-Dealers, and

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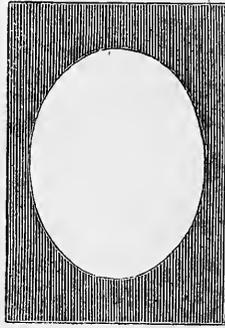
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Wherever you want to keep out Light, use Opaque.

IT IS APPLIED WITH A BRUSH, DRIES QUICKLY AND STICKS.

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4¼ x 5½,	1 00	11 x 14, Double Thick Glass,	6 80
4¼ x 6½,	1 25	14 x 17,	10 00
5 x 7,	1 65	17 x 20,	17 50
5 x 8,	1 85	18 x 22,	20 00
6½ x 8½,	2 40	20 x 24,	24 00

11 x 14 and larger, packed in boxes containing half-dozen.

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Is an indispensable article in the photographic gallery. There are so many uses to which it can be applied that a photographer having once given it a trial, will never be without it, as there is nothing known that will take its place.

The substitute is in the form of a varnish, is flowed and dried the same as varnish, but dries with a granulated or ground-glass surface.

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- " a Retouching Varnish.
- " Softening Strong Negatives.
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For Ground Glass for Cameras.

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All imitators have given it up. They can't make it. GIVE IT A TRIAL.

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Prepared with particular care, warranted free from acid, and very soluble. It has made its way steadily and surely into most of the principal galleries in the country, where parties prefer to make their own collodion, and its superior qualities are shown in the medals awarded at the Centennial, Vienna, and Paris Exhibitions for photographs made with collodion in which it was used.

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PHILADELPHIA.

THE

Philadelphia Photographer.

EDITED BY EDWARD L. WILSON.

Vol. XIX.

DECEMBER, 1882.

No. 228.

AND WHAT FOR 1883?

A HAPPY NEW YEAR TO YOU ONE AND ALL.

At 12 o'clock midnight, December 31, 1881, we stood upon the quay in Brindisi, in Italy, listening to the trembling sounds of the old cathedral bell. As we looked out upon the Mediterranean towards Egypt, the moon shimmering across the blue waters, the thought came to us, How awfully far are we from the *Philadelphia Photographer* and those who will read our greeting for the New Year! And yet we were going further on our tour, little knowing as to whether we should ever get back or not. But the happiness we wished for our readers in the last article we wrote for our closing issue of 1881 was shared by us to the fullest extent in six months of real photographic practice and service, followed by the best of health, which it was our pleasure to enjoy before the war cloud broke over the unfortunate country which we visited. But we must not get too far away; it becomes our duty to wish our readers, for the twentieth time, "A Happy New Year." It seldom falls to the lot of any one to occupy the editorial chair in one section for so long a time. It is just one year too soon for us to review this double decade, and therefore we only propose three cheerful cheers for this twentieth year of our editorial life. It behooves us now to speak of what we propose to do during this year, and should we reach its end with success and begin another, we

may have more to say. We will try more than ever to make our magazine better than it has ever been, and have already made arrangements with our coworkers abroad and our best photographers at home to secure for this magazine the very best of every thing that can be had. As we go along, every new thing possible shall be brought to the attention of our readers, and every improvement secured for them, and every effort given that is necessary to protect them from the evil-doer. As usual, and as is necessary, our pictures are in preparation for a number of months ahead, and will include beautiful examples of home and foreign production. We shall adhere in a measure to the *Mosaics'* rule, since it has become so acceptable and useful, not forgetting, however, to give some splendid single examples of out and indoor work. The January number will be embellished by an admirable example of emulsion-work and a sweet *child* picture, by Mr. J. H. Kent, of Rochester, N. Y., followed in February by twelve new studies, by Mr. H. P. Robinson, the talented author of "Pictorial Effect in Photography," who did us this pleasure in February last. His new series is admirable, and will be described fully with the names when appearing. The issues which follow will be in turn embellished with a landscape study in Colorado, by Mr. William H. Rau, of Philadelphia; by admirable portrait studies, by Mr. J. T. Mason, of Leav-

enworth, Kan.; by mosaics, by Mr. J. H. Reed, of Clinton, Iowa, together with other examples of wet- and dry-plate working, including a series from Messrs. Nadar, the celebrated Parisian photographers. Added to this will be one or two studies taken especially ourselves for our readers in the Orient, which are likewise being printed with the other novelties which we have in contemplation, which it would only be imprudent to mention now to our readers. They have accepted our good faith in these matters for so many years that we believe they will have confidence in us for the future, and that they will subscribe promptly, and give us the wherewithal to carry out our plans. Please be prompt in this direction, since it is necessary for us to live. As we go along in advance we must arrange for paper and other articles necessary for the production of a first-class magazine, and, therefore, it is necessary that we should have the cash in hand. All departments of our magazine will be fully kept up to the standard of former years, and our desire is to secure for you all a first-class photographic magazine; not only that, but also a bright, enterprising, useful newspaper on photographic subjects. Therefore, please send in your orders briskly, and pay us generously and promptly. We shall always be glad to hear from you.

PHOTOGRAPHIC MOSAICS, 1883.

It is scarcely worth while for us to say much about *Mosaics* this year, since the trade and those of the fraternity who "cannot wait" have already nearly taken up our whole edition. We forgot that the large army of amateur photographers would be ready this year to grab up our issue, and have scarcely printed enough, we fear; still there are yet some copies on hand, and those who order first will, of course, secure them. This is the nineteenth time we have asked our readers to accept this annual at our hands, and although in years gone by we believed that it could not be better, still we believe now that there never was such an issue as this one. A full list of its contents is given in the advertisement in the proper place, to which your attention is directed. It would be out of place for us to say any-

thing in favor of our little annual, were it not that the noble army of professionals and amateurs who stood by us this year deserve credit for the work they have done. Indeed, our usual work of polishing and fitting the parts together has been easier than usual, so really brilliant and bright and beautiful have the contributions been. Nearly every article is contributed by a practical worker who knows his business, and whose heart is in it, and whose continued desire is not only to improve himself, but to help improve others. The growth of this feeling of willingness to teach the less instructed has made the duty of the editor of *Mosaics* a much more pleasant one than it was formerly, for which we desire to express our gratitude to those who flock round us and help us. As usual, there is an overflow of articles which came too late for us to use, and the readers of the *Philadelphia Photographer* will receive this additional benefit from time to time, as we have a place for them. You will do well if you take the advice of a friend and secure your copy of *Mosaics* for 1883 now.

OBITUARY.

DR. VAN MONCKHOVEN.

DR. MONCKHOVEN died on Monday, September 25th. On that day he left his home, after having partaken of a good breakfast, in the best of health. At six o'clock he returned pale and complaining of pains in the region of the heart. A physician was called in, but when he arrived the pains had disappeared, and he supposed that Monckhoven had merely had a simple disturbance of the stomach. Our friend regained his accustomed spirits, suffered no more pain, and conversed with those around him about the splendid scientific experiments he had made in the morning. It seemed as if all the trouble had gone. After having eaten a very light dinner he went to bed, and in a few minutes afterwards the pains returned with increased violence. The physician returned immediately, but this time to state the true disease with which Monckhoven had been attacked—*angina pectoris*, we are told. After a half hour of terrible suffering he expired, without having lost con-

sciousness for a single moment. His last words were for his family, for his dear wife especially, whom he left still young, with the weight of a family to support and an important manufacturing industry to direct. Man proposes and God disposes, was his exclamation at the moment when life was so suddenly taken from him. What could he say more true when he felt that he was forced to give up all his dreams as a scientist, all his future projects for a family to which he was so ardently attached. His dreams as a scientist he had not long ago confided to us, and since he had commenced with ardor to change them into realities. "You see, my dear Vidal," he said to me, "I wish to devote myself to pure science. My wish is to acquire, by investigations in general science, successes analogous to those that I owe to a science of application, to that beautiful photography which has allowed me to create, for the benefit of those who are dear to me, a most successful industry. I feel that through pure science I will perhaps reach a still higher degree of consideration. I am too often considered as merely a photographer; from this time forward I intend to devote myself to a line of work which will make me a scientist in the most general acceptance of the word." These confidences were made to me at the time of the Exhibition of Electricity, which he came to Paris to visit, and where he purchased a large number of special appliances suitable for the new studies that he had in view. Without losing any time, with that active, ardent, imitative spirit that all saw in him, he went to work, and soon addressed divers communications of the highest interest to the French Academy of Sciences. Among others the causes of the enlargement of the rays of the spectrum of hydrogen, and the causes of the destructive power of lightning. In short, he had given himself up to the study of physical astronomy, and his loss is a great one for science: photographic science is most strongly affected by the death of one of its most fervent adepts, whose special work was so important.

Born in 1834, he was but forty-eight years of age, and it is possible to foresee what he could yet have done if his destiny had been

to live only ten or fifteen years longer. His science was very great and universal. None of the more important facts of chemistry and natural philosophy were unknown to him. He was versed as well as any astronomer in the special study of the stars, and it was a pleasure to converse with him, and to hear him set forth with unequalled clearness and mathematical precision his innumerable observations in the domain of those scientific facts the study of which absorbed the greater part of his existence.

If we wished to give even a short synopsis of this life so nobly and usefully filled, we would be carried far beyond the limited space we have at our disposal. His works are well known to all our readers. No name was more popular in the photographic world than that of Monckhoven. We have formerly published a long list of his numerous works. It is he, it is his works which have given to the greater number of us the first initiations into the practice of our art. He was but forty-eight years of age, and we, who are one year older, thought some twenty years ago that he was at least sixty, so great was his reputation at that time, so far had his fame extended. And this renown was continually increasing, as quite recently, when gelatine plates made their appearance. Convinced of the future in store for a good preparation of this kind, he boldly entered the arena, bringing with him all the weight of his science, and in a very short time he succeeded in organizing a factory of dry plates which to-day reaches the remarkable figure of producing 1200 dozens of plates, 13 x 18 centimetres, daily, say 14,400 half plates. We have here a magnificent scientific success coupled with a splendid industrial victory. We may well conceive that Monckhoven had, in presence of such a result, due entirely to his efforts and his knowledge, the ambition to go still higher. The pecuniary position of those dear to him having been assured, he aspired to increase the value of his name, to enter into his future life with a share of glory still more solid than that given him by his photographic work. This happiness was denied him. God disposes!

Did Monckhoven, without having ever mentioned it, have a presentiment of his

premature end? We are tempted to believe it, in presence of all the care that he took to make known to those around him the numerous details in the preparation of his gelatino-bromide emulsion. All, absolutely all, was foreseen in order that the manufacture of the plates should continue on the same footing, and increased even, if necessary. We are happy, in the midst of our great grief, to be able to give this assurance to our readers anxious to learn if this source of beautiful prints will still be available.

It remains for us to offer in the name of all our friends, in the name of the whole photographic world, our profound sympathy for the worthy widow of our friend and for his two charming daughters; let them be assured of the part that we all take in the terrible misfortune that has fallen upon them, and of the gratitude which we owe them, as we all were the friends or the admirers of the husband and father, so affectionate and so ardently devoted to them.

While he is at rest—alas! after too short a life, but one so laborious and well filled—for us remains the pious but difficult task of continuing the work that he followed with so much success in view of popularizing photographic science.—LEON VIDAL, in Paris *Moniteur*, October 16, 1882.

PHOTOGRAPHERS versus ARTISTS.

A QUESTION THAT MUST BE SETTLED.

BY D. BACHRACH, JR.

How long photographers will tamely submit to have the best and most profitable part of their legitimate business appropriated by a lot of so-called artists is a question that now looms up into importance, in view of the fatal stabs being given to our small work by the "Cheap Johns." Photographers in every large city have instances before them of how they patronize and encourage those who touched up their prints in water colors, ink, crayon, or whatever might be wanted; of how these persons, by this constant practice on the *photographer's productions*, became more adept in *improving the photographs*, (please bear in mind they did not *make* the pictures) finally set up as *artists*, some with a right to the

name, but most of them utterly dependent on photography, and how, little by little, they took away the *photographer's* patronage of this kind of work, *using his facilities and his skill to obtain negatives and prints at the lowest price, the photographer paying a high rent for his establishment, and the "artist" paying rent for a garret.* These gentry are not content with a negative by a cheap photographer, but must forsooth have the *best*, and the photographers are fools enough to make them. Now what would be thought of this folly in any other business? The writer was forcibly reminded of this state of facts by the impudent assertion of an adolescent wind-bag who had failed as a photographic apprentice, had taken a few lessons in crayon work, and had learned just enough not to spoil a good likeness when a photographer made it for him, that "you fellows (photographers) have no right to orders for crayons, which belong to us artists (?) aw," as he fondled his carefully-nursed whiskers, with a self-satisfied grin. You will perhaps say, "You overstate the case, and how are you going to remedy it?" Well let us see. Suppose we take a crayon for example, as it comes nearest to a plain photograph. A patron comes and gives you an order for one; your first step is to make some negatives of him, carefully study every position and light, and finally hit upon one which suits both of you; next you make the print, solar perhaps, and it may have been printed two or three times to pass your criticism; then comes the mounting on a strainer, and you hand it to the *crayon retoucher*, that is the right word, for the drawing is there, every line and shade in a perfection which the best free-hand draughtsman (a scarce article) cannot equal; and if the photographer has true art feeling, it is absolutely a work of art. Now then comes the supervision to see that the work is done to suit both yourself and your patron, and *mainly that the likeness be not lost. It is a remarkable fact, often noted, that the public judge the large crayon portrait by the small photographs of the same negative.* This is absolutely right, for after the photograph is approved, the patron is not so particular about the technique as the likeness. Finally, the photog-

rapher must collect the money, and run all the risk both of finally satisfying the patron and getting his pay. Now with these facts presented to any clear-headed man of business, what would he say? Is there any doubt but that the judgment would be that the photographer has at least two-thirds of the trouble, work, and responsibility, to say nothing of talent that he may show in his pose and lighting, and that he should be entitled to a corresponding share of the remuneration?

Yet notwithstanding all this, it is a fact that almost any good crayon artist obtains at least one-half, if not more, of the proceeds. And these men tell the people that photographs are of no account, that photographers rob them by making a profit on work that does not belong to them, that they (the artists) do it better and cheaper. Now what are the real facts? The writer knows from his own experience, and yet still more from that of Mr. Bendann of this city, that artists employed by and supervised by an able and skilful photographer like Mr. Bendann, have turned out results immeasurably superior to that, when they worked for themselves. The writer could point to dozens of portraits in this city, oils, pastels, and crayons, in attestation of this. And why? Because they had perfect photographs, which the patrons approved, to start with, and the picture was already created for them, needing only the technical finishing. It is a curiosity to see these men enter a photographic studio with a sitter. They are going to teach the photographer something about lighting and posing (?), strut in with a pompous air (and the skilful men in our profession generally submit to this tamely), order their sitters in the chair, turn and twist them awhile, and order a negative made, and find out afterward that it does not turn out well, because they know nothing about the chemical value of light and shade on the plate, that it does not develop just as the sitter looks to them, and finally get the photographer to make it his own way, which they find the best; and all this the photographer does for a small pittance.

This state of facts is only less true of colored work, because in that the proportion of the artist's work is somewhat greater

than that of the photographer, but is counterbalanced by the latter's business responsibility in the matter. With all this, *the patron* has the advantage of a severe critic between himself and the artist, who often slights his work when he does not feel in a good humor, as many of us know who have stood for hours behind an artist to point out defects and get them corrected; and especially when the likeness is partially lost. Who that compares the dimensions of this business with that before photography was known, but must acknowledge that *photographers* have made it. And yet it is surely being absorbed by a lot of itinerants, bad, indifferent, and some of them good, who could do nothing without photography; and the best of whom were made by photographers. But you say, What is to be done? Close your doors against them, except upon the same terms as your regular patrons. Charity begins at home. But you say they may start photo-studios of their own? Very well. *When they become, by years of practice and experience, good photographers, pay rent for an establishment, and pay for their facilities instead of using yours,* they will begin to see it in a different light. It will be the other ox that is gored then. Suppose, for instance, the few leading and best photographers in every city resolve *not* to give their work for this purpose, and they will have to go to the poor ones, how long before the better class of patrons will find out the difference? Let photographers only employ artists who do not cut their throats; let them *train* men to it; let a number in each city combine and support each other in this instead of cutting their business up with cheap prices; let them turn a man down as soon as he goes back on them, and get others in opposition; in short, remain masters of the situation. Let them hold up to their patrons the absolute superiority of photographic portraits over others, their absolute permanence since the introduction of the platinum process, and make the matter clear to them, and the writer's word for it the reward will be far greater than trying to get a rush on cabinet cards at \$3.00 per dozen. The practicability of this was most thoroughly illustrated to the writer by seeing really superior work

turned out by a comparatively mediocre artist on account of the intelligent supervision of an artistic photographer. Push your large photographs, and show how much better they are than the mass of the miserable daubs turned out by the itinerant class, and withal how much cheaper.

Of course, this article does not apply to really creative portrait artists, who have spent a lifetime of study in art schools and portraiture, and always have been practically independent of photography. But these men are very few indeed, and really not in competition with the work which legitimately belongs to photography, and yet are the first to acknowledge its advantage to them. This article applies to the mass of impudent upstarts who owe their very existence to photographers. Gentlemen, it will pay well to come together and act in unison on this subject. *The writer is ready to throw the first stone!*

THOUGHTS ABOUT GELATINE PLATES.

BY DR. E. WALLACE, JR.

At a recent meeting of the Society for the Advancement of Photography in Berlin, a complaint was made that the practice of preparing large-sized gelatine plates and cutting them down to the required smaller sizes, was objectionable on account of the sharp edges being likely to cut the fingers, the liability of the film to leave the glass at the cut edge, and that small splinters of glass are very likely to stick fast to the film, causing scratches when others are laid on them in packing, even when protected by paper placed between. Herr Schaarwächter said that he believed that the sharpness of the edges depended upon the kind of glass used, German varieties giving sharper edges than Belgian. Herr Fuchs, on the other hand, believed that it was some peculiar quality of the diamond rather than the glass.

Mention was also made of the fact that gelatine plates kept for a time would frequently show a black hazy or vignetted edge, the result of some decomposition apparently beginning at the edge of the plate

and proceeding in towards the middle. The general opinion expressed was that it was caused by contact of the film with the wood of the groove in the plate-box. Herr Prümm, however, believed that it was more likely to occur in plates imperfectly dried.

Another curious fact mentioned in this connection was that, in the case of plates cut down from larger sizes, the cut edge always remained clean. This might be caused by imperfect removal of foreign matters from the other edges before coating.

ECHOES FROM THE ORIENT.

(Continued from page 229.)

AFTER returning from the Nile and spending some ten days in Cairo we separated such luggage as was not needed in the desert, stored it at the house of a friend, and left by the train at about noon for Suez. The ride through the desert was interesting and not very tedious. All day we were passing through the land of Goshen, whose fields were still rich with the harvests, as in the days of the patriarchs, and filled with fellahin farmers irrigating the land and cutting the crops. Our good dragoman, Mohammed Achmed Effendi Hadaiya, who had preceded us to Suez, met us at the station and attended us to the Hotel Royal, now emptied of its population, where we remained over Sabbath. From my room window I saw the tide go gradually down until only a narrow channel was left, and the Arabs crept away out upon the sand to gather fish and to attend to their boats. On the other side I could plainly discern the Arabian mountains. I read over part of the story of Israel with a new interest, and made notes for use afterwards during the days of travel. Suez, like all towns in this wretched country, is squalid and dirty. Towards evening I took a walk upon the beach and out upon the quay, which reaches out to the point where the canal and the seas unite. Both the Egyptian and the Arabian mountains were in view, like hazy shadows, and our enthusiastic dragoman pointed out "the very place where Moses and his followers crossed the Red Sea." It seemed

like a dream that I should be here, with the prospect of following over the same route.

The next morning found us in a rude sail-boat crossing the Red Sea, looking upon the same sea and mountains which Israel saw when fleeing from Pharaoh. The day was all that we could ask, the water was beautiful, and the mountains grand. We halted at the quarantine station a few moments, and then, pushing on, reached the Arabian shore in less than two hours. There our camels awaited us, having been sent over from Suez by order of our careful dragoman. We did not obtain these at Cairo, for the camel of the land of Goshen is apt to be troubled with fleas and insects, which disturb the traveller exceedingly, while the Suez camel is cleanly and tidy in person, and usually in a better condition for travel upon the desert than the camel accustomed to city life. Varied were the thoughts which came to me as I first stood upon the Asiatic shore and looked back upon the land of Goshen. I could plainly see the waving grain in the fields, and I could see the flocks of sheep and the goats and the buffaloes, and hear the cry of their attendants coming across the sea from the ancient home of Israel. The mountains of Attaka, on the other side, were beautiful in form and pleasant to look upon, and it must have required considerable faith on the part of Israel to exchange such a land as Goshen for the unpromising country which they found on the other side. But it was to exercise their faith that God required them to make their journey, and the history of this journey we well know.

I had grown very fond of Egypt. Alexandria and Cairo were exceedingly interesting. The people were particularly good-natured and pleasant to me, and I could not help looking back and hungering somewhat after her "flesh-pots." And yet why should I do this when such ample provision had been made for our comfort by our dragoman? For here, awaiting our arrival, were barrels of water, coops of live chickens and pigeons, sheep and lambs, and oranges, and eggs, and bags of charcoal, and fruit and vegetables, and many delicacies for the table, which made the thing look more like a

picnic for a day than preparation for a forty days' travel in the wilderness. And so, leaving the squeak of the shadoof and the undulating desert, the vertical telegraph poles and the horizontal railroad, the elevating bar-room of "civilization," and the noise of the Bedouin, the quarrelling of the quarantine militia and its discussions with the boatmen, we turned our faces towards our camels and prepared for the journey. I did not feel impressed at first with the fact that I was really and truly in the Arabian desert, standing upon the very land so celebrated in Scripture history, and looking upon the mountains which the departing Israelites had looked upon and looked back to with so many misgivings. The great desert lay stretched out before us like the sea; the only evidence of civilization being the tents of the soldiers who had charge of the Quarantine Department for the Egyptian Government and the passing vessels. The heat did not seem so oppressive as we had expected; perhaps we had been spoiled a little by our previous experience along the Nile. The sky was beautiful, and the soft sea-breeze came upon us most gratefully. Everybody was cheery and bright, and a hunger, which proved afterwards to be chronic, seemed to set in at once. The effect of the atmosphere upon us was astonishing. We knew that the temperature must be high, though, for our comfort, we took no thermometer along with us; and yet the air was so pure and bracing that very seldom was there any complaint of heat. The "unquenchable thirst" which we were assured would overtake us postponed its visit indefinitely. It was a rare thing during our whole journey for us to desire to quench our thirst "between meals." Perhaps if we had supplied ourselves with a large stock of spirituous liquors, which is usual when such journeys are undertaken, the desire for drink would have been more frequent; but among our party of four not one bottle of strong drink of any kind was taken. I am happy to be able to say that the journey was all accomplished without one application to strong drink, or without even the necessity of such an application, either external or internal. As a result, not a single hour of time was lost from detention

by sickness of any of our party, and not a single disturbance occurred. Our Arab attendants, in strict obedience to their Koran, were quite as temperate as ourselves, and consequently peace reigned throughout.

Rhud-dle-uddle-uddle! *Rhad-dle-addle-addle-addle-addle!* and there arose in the air, on the eastern Arabian bank of the Red Sea, seventeen loaded camels, four Americans, and twenty-one Bedouin Arabs, for a journey down "the great and terrible wilderness" to Mount Sinai. The rude boat which brought us over, as it rowed away from us, seemed to be the last link that connected us with civilization, for now indeed we were in the desert.

Our camels were made to bend their triple joints (which they did with the guttural grumble I have given you a chance to imitate at the beginning hereof), and to fall upon the sand, while their drivers, with one foot upon the left fore-knee of the camel, assisted us to our lofty position upon the uneasy humps. Then a pitch forward, a double lurch backward, and their joints were at their wonted pose again, and we were balancing in the air. Our excellent dragoman was a silk merchant of Alexandria, an Arab-Egyptian and member of the new Egyptian Parliament. By special arrangement he conducted our expedition in the cause of science and education, and each day he verifies his promise that we are "to live like princes." The first day on the desert is usually a short one, in mercy to the traveller; so in less than two hours we came to the "Wells of Moses," near the Red Sea coast, and there encamped for the night.

The next morning, when the sun arose, after a walk around among the "wells" and the palm-gardens which had grown up about them, we saw the loads of our camels revealed; and there, besides tents, bedding, baggage, and photographic necessities, were chicken-coops well stocked, water-casks, pigeon-cages, provision-boxes, bags of charcoal, bags of beans for the camels, crates of fresh fruit and vegetables, a turkey-pen, a sheep and a goat, with many other matters whose mysteries I had not yet learned. The Arabs were grinding beans for their camels between stones, and baking their bean-cakes upon fires made of bushes and

palm branches, and the sight was a strange one, indeed.

Being the first day, we started a little late, but at 8 A.M. we were on the road again, walking the first hour. We could see the sea nearly all day, and often *mirage* pictures upon the distant horizon, which seemed like islands in the sea, dotted with waving palms. Towards noon we met about sixty Russian women and two men who had been on a pilgrimage to Mount Sinai. The desert-paths are not sandy, but hard and gravelly, and pleasant to walk upon. There was no use in waiting for a shady spot; so, soon after noon, we halted, erected our shelter-tent, ate our lunch, and rested for an hour. The chief Sheikh of the Sinai Bedouins, who was escorting the Russian pilgrims to Suez, joined us here, and came to our tent while we were eating. It was a curious scene to see Hadaiya meet him, "fall upon his neck and kiss him" over and over again, as Moses did Jethro. Then they squatted by our tent entrance and chatted over their plans for the rest of the journey. The graceful gestures and the amiable tones so peculiar to the Bedouins were very attractive, and maps of the routes proposed were drawn with the finger in the sand. We could understand but few words of Arabic, but we knew that matters were finally arranged satisfactorily, and we proceeded, after I had been called upon to present Sheikh Mūsa with a new scarlet robe and a red tarboush to match. He looked like a Cardinal, and required me to put on the new clothing that he might see how they looked.

Now we passed the first, second, and third of the oases which claim to be the *Marah* of the Bible, and tasted the "bitter waters" thereof. The sun went down red beyond the Egyptian shores, and lit up the profiled hills between us and Africa; then the full moon arose, just as we sighted our tents in Wady Surdur, where we encamped for the night.

The next day we departed somewhat from the sea, and began to enter the hills and to follow in our journey the course of the winding wadies which now grew upon us. The monotony of the flat desert was ended, and each mile the variety of outline changed,

much to our gratification and relief. Our camels, or dromedaries rather, moved at about the rate of three miles an hour, and each minute our bodies were forced to contribute eighty jerks backward and eighty jiggles forward for the progress of the journey. This made nine thousand six hundred motions to and fro per hour, and you can calculate how many that would be in a day of ten hours' travel. I have ridden on horses which were more tiresome, to say nothing of the jolt of the Nile donkey when he has not disposition to increase his speed. If we grew tired we could walk, and if the sun was too hot a sunshade and smoked goggles were called into service. At about four o'clock the hills would begin to shade us, and at once we would grow cooler. Our third halt for the night was made in Wady Ghurundel, the *Elim* of the Bible. This was the first oasis of any size we had seen since leaving the Wells of Moses, and here we had no difficulty in finding as many "wells" of water and palm-trees as are named in Exodus. A running brook of sweet water was here, with many trees of acacia, and fuzzy, smoky tamarisks, with shrubs and grass in plenty. The mountains round about were picturesque, too, and clambering up to the summit of one of them I obtained a good understanding of why an oasis should occur just here, of the great value of such a green spot in the desert, and of the wonderful twisting and twirling of the wadies. A sweet, cool, resting-place was Elim. After leaving it next day each hour gave us a new surprise. Such fantastic shapes and glowing colors I never before saw in mountain forms. Suddenly, like an immense wall, almost vertically, a gigantic mountain range arose, which threw a grateful shadow across our pathway, and led us directly to the gorgeous side of Jebel Tay-yibeh.

We had just been admiring a pretty little stream at our feet, a second claimant for the glories of Elim, when this show of painted cliffs and coves came into sight on our left. The colors were golden, brown, amber, orange, red, purple, gray, white and black irregularly arranged in strata of varying depth. The sun now struck them from the west and cast shadows, which brought out by contrast the full beauty of color and shape.

While contemplating the wonderful picture, we heard the whispering of the sea, and lo! we were at the end of the wady, and could see out from between its rocky sides all away across the sea into Egypt again. Such a glow of color and such combinations rarely occur in nature. The waters of the second Elim are here cast into the sea, and turning southward, we travelled some time longer close to the shore, dismounting and picking up beautiful shells and pebbles until too dark to discover them. A few moments more and the mountains stood back again and gave place to the Ras Abu Zenineh, a desert plain named after Saint Zenineh. "And they removed from Elim and encamped by the Red Sea" (Num. xxxiii. 10), and we had done the same thing, and in the same place undoubtedly. The sandstone mountains on three sides were even more beautiful than we had seen, and the sea was at our door. We followed it next day for two hours, often being compelled to walk in the very breakers as we crept around the rocks. Then Mount Serbal came in sight, and we turned from the sea towards it, following the beck and call of a long wady until we came to the peaks again, always so welcome. As we now ascended, we could once in a while discover a bit of the sea, and the Lybian hills beyond looked like blue silhouettes—as Capri often does at Naples, or the Ionian Isles to the Mediterranean traveller. A regular geological fantasia now came to us. The peaks rose from their yellow bases, but they looked as if their substance had been poured down from the hand of the Creator and allowed to take what shape they would, no two being alike. It was one of those efforts of nature, of form and color, which defies description, and photography, too. One time the forms of the elevations seemed like the heaped-up refuse of foundries; at another, as if the whole surface had been mined and thrown back of the searcher for gems as he delved into the mysteries of the mountain sides. Again it looked as if the bottom of a vast cave was before us, full of stalagmites of all colors, from which the roof of stalactites had been lifted and turned over alongside. And so the panorama went on, and we were compelled to ask where, and *what next?*

DR. VOGEL'S NEW BOOK.

As announced in our last issue, a translation is being made rapidly of Dr. Vogel's new book on *The Progress of Photography since 1878*. The work is rapidly going on in the hands of Dr. Ellerslie Wallace, Jr., whose talent as a German scholar and photographer are well known, and who during our late absence abroad acted as editor of this magazine. The fruits of the labor of these two bright lights in our art cannot be otherwise than excellent in every way, and most useful to the photographic fraternity. The new book will not be ready until the early part of the year. Meanwhile, to relieve the patience of the always hungry photographic reader, we shall give a few extracts from the work in these pages. Below will be found chapter viii, by which it will be seen that the learned author has been too clear-headed to overlook our growing *amateur clients*, and by which the thoroughness and eminently practical nature of his work may be seen.

It will, indeed, prove a most acceptable review of the most wonderfully progressive five years of all the short life of our art.

PHOTOGRAPHY FOR AMATEURS.—ORDER OF MANIPULATION.*

CHAPTER VIII.

By the introduction of dry plates as a commercial article, amateur photography has become much more widely extended, especially among scientific men, artists, and professional travellers. We give the following hints for the benefit of such classes, with particular reference to landscape and architectural photography:

Size of the Picture.—The larger the picture, the greater the cost of making it. Large pictures require apparatus of large size, large and costly lenses, plates, developing-dishes, etc. etc., and these are fruitful sources of annoyance and difficulty in travelling. Therefore we recommend the smaller sizes to the amateur. The most convenient is five inches by seven, the so-called English cabinet size. A camera made for this size

* See, also, *Handbuch der Phot. für Amateure u. Touristen*, von Pizzighelli. Vienna.

of plate is compendious, light, and may be easily transported with a few plates anywhere. Many travellers, among them the late Hildebrand, Dr. Ribbeck, also Hofrath Häckel, and Dr. Buchner, have used this style of camera and been well contented with it.

As to the lenses for this size, we recommend an aplanatic of about 18 cm. (7 inches) focus, and either a Steinheil aplanatic, No. 3 (price 75 marks), or a Voigtländer Euryscope, No. 1 (price 100 marks), or a Busch aplanatic of 1 $\frac{1}{4}$ inches opening (price 58 marks), or a Suter aplanatic of 1 $\frac{1}{3}$ inch opening (price 60 marks). The Voigtländer lens will also work on plates 5 by 8 inches. This size has lately been much used by amateurs. Frequently, however, more than one lens will be required, from the fact that different subjects and different points of view require a corresponding difference in the amount of angle to be included in the picture. For those cases where a very wide angle (90°) is necessary, we advise the use of a Busch pantascope of 4 $\frac{1}{2}$ inches focus (price 84 marks), or the Steinheil wide angle lens, No. 2 (price 60 marks.)

These lenses do not allow as much light to pass as those before mentioned, are therefore more difficult to focus, and require longer exposures; they give pictures of nine inches in length and under. The first mentioned lenses give the sizes of picture referred to *when used for landscapes with a small stop*. They may also be used for portraits. Here they are used with the *full opening* if the light in the glass-house be weak, or if the sitter be placed in an ordinary room. In such cases the exposure will perhaps be as long with the full opening as for landscapes when the smallest stops are used.

The Apparatus for the Negative Process comprises a landscape camera, either with double holders or changing box and tripod. The accessory articles are, a black cloth for focusing (a couple of yards of a common quality of velveteen will do), a focusing glass, a red lantern, two papier-mâché developing-dishes, two glass funnels, two graduated measures, one holding two fluidrachms and one three ounces, a pair of hand scales

and weights, a negative drying rack and grooved box, and a supply of dry-plates.

Apparatus for the Printing Process.—For this are required a printing-frame, three dishes, paper, and the materials for toning (chloride of gold) and fixing (hyposulphite of soda). (See Vogel's *Handbuch*, iii., p. 345.) We recommend to amateurs the ready-sensitized silvered paper supplied by the United Dresden Factories, or, if expense be not objected to, the platinum process.

The carrying cases for the field apparatus are best made of leather. Guerry's instantaneous shutter will answer its purpose very well.

Precautions.—Beginners in photography must not forget that the sensitive plates are *never* to be exposed to daylight nor to the white light from gas or oil-lamps. The light of the image in the camera when everything is fully prepared for exposure is the first that is to reach them. The unpacking of the plates, and placing of them in the holders or changing-box, must be done *by red light only*, and even this must not be allowed access to the film for too long a time.

Routine of Manipulations.—First of all select the subject to be taken, and if portraits are to be made, remove everything that would not properly belong in the picture. In the case of landscapes take great care to choose the best point of view, and the most suitable effect of light,* then focus as sharp as possible without a stop, afterwards inserting the smallest or next to the smallest stop, if extreme definition into the corners of the plate be required. The following operations are now to be gone through with:

1. Loading the holders with sensitive plates (or filling the changing-box).
2. Carrying the holder to the camera.
3. A last look at the focus (this must have been previously attended to).

* One of the principal rules is that the sun must not shine directly on the lens. Excellent hints upon the selection of the point of view and lighting are given in the *Handbuch der Landschaftsphotographie* by Ph. Remelé, 2d edition. Berlin: Oppenheim.

4. Putting the holder in the camera (without shaking the apparatus).

5. Drawing out the shutter of the holder.

6. Exposure (taking off the cap of the lens and replacing it. *In taking it off, the apparatus must not be shaken*).

7. Closing the shutter of the holder and changing the plate. The taking of the picture is now done; the following operations concern the development and finishing of the exposed plate.

8. Carrying the plate to the dark-room.

9. Taking the exposed plate out of the holder and laying it in the developing-dish (by red light).

10. Mixing and pouring on the developer, rocking the dish, and controlling the development.

11. Short washing.

12. Placing in the alum.

13. Short washing.

14. Fixing until all the white bromide of silver disappears.

15. Long washing (half an hour under the tap).

16. Drying.

17. Warming.

18. Varnishing.

Consult also the directions given in Chap. VI., B.

A certain amount of routine is necessary in order to perform the operations in the best manner.

Time of Exposure.—This will vary very much, according to the hour of the day and season of the year. The following table of actinic intensities will give a general idea. O means noon-day. One hour, an hour *from noon, i. e.*, 11 A.M., or 1 P.M. The remaining figures explain themselves.

The weaker the light the longer in proportion must be the exposure. For example: If ten seconds be required at noon on May 21st or July 21st, twenty seconds must be given at 6 P. M. of the same day (other conditions remaining the same), since the strength of the light, as shown by the table, is only half as great; likewise, on January 21st and November 21st, seventeen seconds. At such seasons even a little more time may be given, especially as slight over-exposure

is more easily corrected in developing than under-exposure.

the No. 4, 6 seconds; the No. 5, 12 seconds; the No. 6, 26 seconds.

Theoretical actinism of the blue sky free from clouds, for the latitude of Berlin, at different seasons of the year and hours of the day.

	0 hour.	1 hour.	2 hours.	3 hours.	4 hours.	5 hours.	6 hours.	7 hours.	8 hours.
January 21st,	} $\frac{3}{5}$	} $\frac{3}{5}$	} $\frac{1}{2}$	} $\frac{1}{3}$	} $\frac{1}{1\frac{1}{4}}$	} . . .	} . . .	} . . .	} . . .
November 21st,									
February 21st,	} $\frac{3}{4}$	} $\frac{3}{4}$	} $\frac{2}{3}$	} $\frac{1}{2}$	} $\frac{1}{3}$	} $\frac{1}{1\frac{1}{4}}$	} . . .	} . . .	} . . .
October 21st,									
March 21st,	} $\frac{7}{8}$	} $\frac{7}{8}$	} $\frac{7}{8}$	} $\frac{3}{4}$	} $\frac{3}{5}$	} $\frac{1}{3}$	} $\frac{1}{1\frac{1}{4}}$	} . . .	} . . .
September 21st,									
April 21st,	} 1	} 1	} 1	} $\frac{7}{8}$	} $\frac{3}{4}$	} $\frac{2}{5}$	} $\frac{2}{5}$	} $\frac{1}{1\frac{1}{4}}$	} . . .
August 21st,									
May 21st,	} 1	} 1	} 1	} 1	} $\frac{7}{8}$	} $\frac{3}{4}$	} $\frac{1}{2}$	} $\frac{2}{7}$	} $\frac{1}{1\frac{1}{4}}$
July 21st,									
June 21st,	} 1	} 1	} 1	} 1	} $\frac{7}{8}$	} $\frac{3}{4}$	} $\frac{3}{5}$	} $\frac{1}{3}$	} $\frac{1}{6}$
December 21st,									

Therefore, on the 21st of December, at noon, in clear weather, the exposure should be about three times as long as on the 21st of June at the same hour. Under parallel conditions of weather the exposures will be much alike between 10 A. M. and 2 P. M.

From various unexplained circumstances the actinism is $1\frac{1}{2}$ times greater in autumn than in spring at the same time of day.

When clouds are present they cause the greatest irregularities; white ones sometimes increasing the power fourfold, while gray ones diminish it. Certain local circumstances also have a great effect; for instance, we exposed eight seconds on an open landscape in July; but under some trees that kept off the light from the sky, we gave a minute at the same season, and three minutes to an interior.

Stops.—The size of the stop is of the greatest importance. The smaller it is, the sharper the definition out into the corners of the plate, but also the less the illumination, and consequently the longer the exposure. Do not, therefore, stop down the lens too much when making interiors, for the light is weak enough itself. If the ordinary Steinheil aplanatic be used, with an exposure of 1 second for the largest stop, the second sized stop will require $1\frac{1}{3}$ seconds; the third, $2\frac{1}{2}$ seconds; the fourth, $3\frac{1}{2}$ seconds; the fifth, 9 seconds; and the sixth, 18 seconds.

For Voigtländer's Euryscope the ratio is similar. The No. 1 stop requiring 1 second; the No. 2, $1\frac{1}{2}$ seconds; the No. 3, $2\frac{3}{4}$ seconds;

With full opening the new Euryscope will work at least one and a half times quicker than the aplanatic.

Wide-angle lenses are slower, but when used with large openings the difference is not so striking, Steinheil's wide-angle aplanatic, with the third stop (second smallest), giving a negative in eleven seconds, and the ordinary aplanatic with the smallest stop in nine seconds.

The proper time of exposure will often be found only after one or more trials, just as the artilleryman measures the distance of his object by trial shots. Properly-timed plates will show after half a minute's action of the ordinary developer (one part iron, three parts oxalate), only the high lights of the picture, the shadows coming very gradually. If the image "jumps out," the plate is over-exposed, often disappearing under a gray fog, and is lost; if nothing appear after a minute and a half, the plate has been undertimed. The method of treating such cases by means of a modified developer is given on another page.

The best means of quickly obtaining a general idea of exposure, is to make out a table containing full data of all pictures attempted, and then institute comparisons. We give an example of this from practice on another page.

Portrait taking is far less satisfactory than landscape for amateurs, on account of the restlessness of the subject as well as his high claims and expectations, and the diffi-

culties of posing and lighting. In an *atelier* where special provisions are made for obtaining effects, it is easier. However, as there is generally a strong desire on the part of amateurs to make portraits in spite of drawbacks and failures, we will here give Remelé's rules for taking portraits in the open air. These will be especially interesting to travellers who may wish to make characteristic studies of natives, etc.

"When portraits or groups are attempted in the open air, it is necessary to hang

stretched out upon a light wooden frame by means of rings and hooks. It can be taken down and rolled up after using. Paper backgrounds glued upon linen are not to be recommended, particularly if they are of large size, so that a safe place to keep them in is difficult to find. Besides their being easily injured, such backgrounds seldom remain smooth, and will pucker with changes of weather. This should never be allowed if neat pictures are desired, yet it frequently happens with amateurs."

Table of Exposures.

Subject.	Season of Year.	Time of Day.	Weather.	Lens.	Stop.	Time Exp'd.	Character.
The Art School; open, well illuminated street; walls yellowish.	End of July.	Noon.	Sunny.	Steinheil wide angle.	No. 4 (smallest)*	16 sec.	Right.
Collection of Plaster casts, in the interior. Plenty of light from the window.	"	2 P.M.	"	Steinheil aplanatic.	No. 4.	60 "	"
Inside the Vestibule, at the Polytechnicum.	"	5 P.M.	Drizzling.	"	"	125 "	"
In the Yard, at the same.	"	4½ P.M.	"	Steinheil wide angle.	No. 3.	40 "	"
Exterior of Laboratory.	"	4¼ P.M.	"	"	"	30 "	"
Front of Polytechnicum.	"	5½ P.M.	Overcast.	"	"	40 "	Rather overdone.
The same.	"	"	"	"	"	30 "	Right.
The same, Eastern Facade.	"	6 P.M.	Clear.	"	"	40 "	Overdone.
Bow Window of the Art School; open street.	"	3 P.M.	Bright sun.	Steinheil aplanatic.	No. 6.	10 "	Slightly underdetermined.
Group under a Balcony.	"	5¾ P.M.	Clear.	Euryscope.	No. 1.	3 "	Right.
Landscape with trees (open).	"	6¾ P.M.	Clear and sunny.	"	No. 4.	12 "	Overdone.
Open landscape, with the laboratory and new buildings.	"	6½ P.M.	"	Steinheil wide angle.	No. 3.	40 "	Right.

* The same subject with 10 seconds exposure and more iron in the developer also came up well: we also got a good negative with one exposed 20 seconds, and with less iron and more bromide in the developer.

something over the lens in order to prevent false reflections of light; a simple method of accomplishing this is to have two small uprights on the camera, and throw over them a black cloth."

"Use a focusing glass, so as to be sure to have the picture sharp."

"A serviceable background may be made with a piece of gray cloth, supported and

"Just as important, also, as a good background is the head-rest, which must be solid and strong. It should be made of iron, adaptable both to standing and sitting figures, with a firm centre-piece, and supports for the head and back. Head-rests with sideway movement and hinges are indeed indispensable for large studios, but unless well taken care of and gently handled

—as can scarcely be done while travelling—they soon get shaky.”

One of the principal things to be attended to in making portraits in the open air is to choose a suitable place to serve the purpose of the glass-house. The beginner will find some* difficulty in choosing the best spot from among those which are placed at his disposal. This of all things must be borne in mind: *always make open-air groups and portraits on overcast days if possible.* Then it is that the best results are most easily obtained. In clear, sunny weather the crude sunlight will often create such difficulties both by false reflections and its brightness, fatiguing to the eyes of the sitter, that a good picture becomes an impossibility. In respect to the management of light on the sitter, care must be taken not to allow too much top and front light. An excess of top light gives the face a grave, troubled appearance, while too much from the front makes it flat and expressionless. In the country, the large doorway of a barn, preferably facing the north, may be made to do very well. The lighting of the sitter, who should be placed inside, may be well managed by turning him and the background at a greater or less angle. The farther back from the door the position of the sitter, the less top light is admitted, and by moving the background this latter may be made darker or lighter at will, while the doors themselves serve to regulate the side light. In order to obtain nicely modelled plastic portraits, it will in most cases be necessary to take the foreshortened side of the face as the shaded side; the reverse of this proceeding would seldom lead to a good result. For in this case the sitter would have to face the bright light, which is very undesirable, few people being able to bear a strong light without more or less distortion of feature. If possible, always arrange it so that the eyes of the sitter may be directed towards some *dark object.*

If no suitable doorway can be found, another plan must be tried. Let the background *a b* (Fig. 56*) be placed in the corner

* This cut is omitted now, not having yet arrived from Germany.—Ed. P. P.

of a yard, the sitter at the point *e*, and the camera either at *f* in the middle, or more to the side *f* according to circumstances. We will now have sufficient side light, but there will be also too much from the top. This must be softened by something like a screen over the sitter's head, or a curtain, etc. If the side light be too strong, a white paper reflecting screen may be placed at *b*. On overcast days, a few trials will probably solve the problem of lighting the sitter, but it is not so easy on sunny days when, as already mentioned, the false glare from white houses, the ground, etc., makes itself painfully felt. No rules can be laid down how to act under such circumstances, each locality having peculiarities of its own. It will be found that in sunny weather in such places there will be only certain hours at which portraits may be attempted, depending upon the position of the sun and the illumination of surrounding objects.

It will be well for the amateur to confine himself to busts and three-quarter lengths, because, with the exception of the background, no ornament nor furniture will be required, which are difficult to manage, unless the ground is perfectly even and smooth. But those who feel inclined to assume the expense of such articles are advised to have them well and substantially made, nothing looking worse than full-length portraits with crooked bits of carpet, rickety ornamental (?) tables, and sham balustrades, with the inevitable flower-pot filled with broken-backed fuchsias or shabby-genteel cactus plants.

The rule of keeping well away from the sun in the case of single figures applies even with greater force to groups, especially if taken without an artificial background; even if the group be posed in the shadow of a building or large bush, the results will never be first-rate, for the broken-up light of such a position will not give a fine brilliant picture. On the other hand, it is just as bad to pose the group in full sunlight, at least if the personal likenesses of those composing it be desired. The full light of the sun gives hard, spotty pictures, and each face will partake of this character more or less. But it is quite another thing where the group is to form a more or less prominent

object in the landscape. To repeat, then, groups properly so called are to be attempted on overcast days, or in the shade of a doorway or shed. The background also may be of various kinds—natural foliage gives a pleasing effect.

The persons should be disposed in a somewhat semicircular form, so that those at the sides may stand a little nearer to the camera than the middle ones. Failures generally come from one or other of the group not being in a good position, or having moved during exposure. For taking groups in rooms, where more attention must be paid to the lighting, see another page.

Photography in Hot Climates, at Sea, etc.—Philip Remelé (who spent a year in the South Sea with the frigate Bismarck) has given a series of articles in the *Photo. Mitth.*, xviii, pp. 13, 43, 60, which will be of interest to those contemplating a sea voyage. Burger, in the *Photo. Correspondenz*, vol. xix, also gives valuable hints. We mention this, although probably but few of those to whom this work is addressed will ever have occasion to put them in practice.

The Dark-Room.—Many amateurs will not be able to have a room specially devoted to photography. To these we would say, develop at night, when "all the world is dark," and use a red lantern.

Development is seldom attempted while travelling. The plates are merely exposed, and the development put off until the return. Mr. Seligmann, a skilful amateur in Berlin, developed plates exposed in Italy after returning to Berlin, at from two to four months after exposure; he noticed a loss of vigor in them, particularly in the case of instantaneous views. One of the latter developed on the spot with pyrogallic acid was overtimed, the rest exposed under similar conditions, but developed later, appeared undertimed, and required a strong iron developer.

Transportation of the Plates.—Seligmann uses for this purpose a trunk, in which they are so well protected that, in spite of all rough handling on the journey, it is rare to find a broken glass. It is a four-cornered case of stout leather, higher than it is wide, and opening at the side. It is divided into two compartments by a vertical partition,

in both of which a number of cases holding a dozen 5 x 8 inch plates are laid over each other, and secured by metal fastenings. In all, the case holds two hundred plates, which are protected by heavy wadding.

PRAISE FROM THE PRESS.

OUR good friend Mr. G. A. Douglass, of Chicago, has called our attention to an editorial which appeared in the *Indianapolis Journal* the day after the closing of the Convention there, which he is right in thinking should give us all a good deal of encouragement, demonstrating as it does that the art and science of photography is receiving the attention it deserves, and that its professors are reaching a higher standard in the community. Our proceedings were not only published in the *Indianapolis* papers, but in all the leading papers in the West, which was also a good sign. Such things certainly help to encourage the craft, and are always very acceptable. The *Indianapolis* press was exceedingly attentive during the Convention, and although their reports were brief, they were excellent, considering the amount of material which was given them to make a report on some occasions.

Among other things in its article the *Journal* says:

"This meeting proves that photography is the leading method of art representation, not only in portraiture, but also for scenic effects. Could Daguerre or Victor have stepped into Masonic Hall and seen the exhibit, they would have wondered. Not only would they have seen the truest portraiture of the human face and form, but they would find a perfected and ripened art-science. Photography makes requisitions on both chemistry and physics. Its votaries are men of culture and taste. They seize on every device—mechanical, chemical, physical—that will perfect or make permanent their impressions.

"The present meeting has shown the art at its best. Everything that is known in the various departments of photographic productions, instruments, apparatus, and accessories, was here collected. One table was loaded with books and serials pertain-

ing to photography. A series of lectures and demonstrations was given in the Park Theatre, concise and practical. Masonic Hall has been filled for three days with intelligent artists and artisans, explaining to each other and to visitors their various methods and apparatus.

"The vast strides in photographic science, due to the introduction of dry-plate photography within the last year, has struck the death-knell of the old processes. Twenty different photographs of a horse trotting at full speed are taken in a second. Birds are photographed on the wing. Amateur outfits for travellers, which weigh less than two pounds, are made for \$10.

"Photography is becoming the sport of summer saunterers and the reliance of the scientist. It has driven the stock portrait-painter from the field, and is rapidly encroaching on the grounds of the landscape painter. Its use in the arts is without limit. Its votaries have done well to organize for mutual aid and the advancement of art-science. The citizens of Indianapolis have tendered them a hearty welcome and reception, have enjoyed their exhibition and profited by it, and wish them the success in the future they have so certainly and honorably won."

AN INTERNATIONAL PHOTOGRAPHIC ASSOCIATION.

BY LEON VIDAL.

THE project for an *International Photographic Association of the whole world* seems to us difficult, if not impossible, to realize. Those who favor this project are invited by Mr. Carvalho to send their views on the best manner of obtaining this result. We must say that we do not well understand the idea of the author of this project. He speaks of the necessity of enlarging our field of action. Now, the thing is easy to say; and, besides, there is nothing new in the thought; but an Association of this kind should have a heart—a central committee of direction, who would take the initiative, and just here is where the difficulty comes in. Why should the direction of the Association of Photographers of the whole

world belong to one nation rather than to another? How is this tough problem of nationality to be resolved? Again, is there any necessity for this project? Already the best of harmony exists among all the divers photographic societies in all countries. The editors of our periodical publications—Messrs. Wilson, Taylor, Baden Pritchard, Bolton, Liesegang, Vogel, De Vylder, Hörnig, Stolze, Montagna, etc.—without alluding to ourselves, are continually giving proofs of reciprocal good feeling.

At a given time, and for the benefit of the photographic cause, we would acknowledge the necessity for a grand confederation of all the photographic associations—a universal photographic Congress; but we do not believe either in the utility or, above all, in the possibility of creating an International Association whose heart pulsations should come from only one spot on this globe.

Perhaps we may err in this respect, in spite of our conviction to the contrary, and if it should be so, we shall always be ready to give our modest co-operation to any work having for its object a new creation useful to the cause of photographic art.

GERMAN CORRESPONDENCE.

Obernetter's New Emulsion Process—Reproductions of Negatives by Gelatine Plates—Gelatine Emulsion Paper—Emulsification without Washing—New Carte-de-Visite Size.

THE topic of the day here is Obernetter's emulsion process. Everybody is interested in it, and, after convincing myself in Munich of the importance of the matter, I frankly state that it is the most interesting novelty the gelatine process can show. Obernetter's process seems, indeed, to contradict all experience gathered thus far about the production of emulsion. Heretofore we added bromide of potassium to the gelatine, and then silver; Obernetter just reverses this rule. Until now the bromide of silver was found in liquid gelatine. Obernetter makes it in solid gelatine. Up to now we boiled or warmed after emulsifying. Ober-

netter works cold. Heretofore the dark-room was indispensable for the emulsification. Obernetter works principally in daylight in a closed wash-box. Obernetter is not yet quite prepared to give us all the minute details of the process, but has given the principle of the method, with practical explanations. He took some congealed silver containing gelatine, cut it into strips with a bone knife, and immersed them in a solution of bromide of potassium. The surface became white instantaneously, but the effect penetrated soon into the interior. When such a strip was broken, it became clear how far the formation of the bromide of silver had advanced. One hour, or, at the least, two hours afterwards, the formation is finished, and a remarkable diffusion (endosmosis) takes place therein, by which the soluble salts leave the gelatine. To wash it, it is only necessary to conduct water through a pipe into the vessel containing the strips of gelatine. Obernetter places, for that purpose, the vessel with the bromide of silver gelatine in a tin box, through which water can pass, and as the box is closed the washing can take place in daylight. By testing the drain water, one can determine when the washing is complete. The high sensitiveness Obernetter obtains through appropriate additions.

The process is, in fact, so simple that any photographer can easily use it. Several photographers, as, for instance, Angeger, Schaarwächter, Scholten (of St. Louis), etc., had, some time ago, advised Obernetter to make the process obtainable by all photographers for a remuneration, and now Mr. Obernetter accepts that proposition, and has opened a subscription list. The importance of the matter is understood by all. Mr. Schaarwächter states that he compared Obernetter's plates with the best Berlin plates, and found them of equal sensitiveness. It is to be stated yet that Obernetter's plates contain very little gelatine, in consequence of which the layer is thin and very easily washed, so that the manipulation of the plates is much shorter than with common gelatine plates.

One of the most interesting applications of the Obernetter plate is, without doubt, that of the making of reproduced enlarged

and reduced negatives. This process works so exact and sure that Obernetter uses it in place of the dusting method; and he makes from small *cartes-de-visite* negatives of 7x9 inches, which, as to beauty, are the equals of direct negatives. Upon common gelatine plates the process is difficult of execution, as the thick gelatine layer prevents the thorough washing. To insure complete success, an emulsion poor in gelatine, as manufactured by Obernetter, must be used; all other emulsions require a too long acting of the chemicals, washing, etc., so that they became detached, full, etc., sooner than the negative becomes finished. Obernetter proceeds as follows:

The plate is exposed almost twice as long as usual, then developed with oxalate developer until it has become perfectly black on the back also, for which ten to twelve minutes are required. The plate becomes perfectly black on both sides. Then a two per cent. solution of chromic acid or a solution of

Bichromate of Potash, . . .	1 gramme.
Nitric Acid,	5 "
Water,	100 "

is poured over the unfixed plate until it loses its black color and a light picture appears of pure chromate of silver. Now the plate is treated in daylight—in order to remove all chromate of silver, once washed with quite diluted ammonia, 1 to 100, then with water. Finally, the plate is again placed in an oxalate developer, which is allowed to act until the desired strength is obtained. If the plate should become too strong, the action of the developer is interrupted and the plate washed and fixed.

The Vice-President of our Society, Mr. Prumm, went at once to Munich to get all the information there about the process, and although he is himself a manufacturer of gelatine plates, and places a high estimate upon his own plates, he does not hesitate to acknowledge the high value of the process invented by Obernetter, because of the fact that one is enabled by Obernetter's plates to make from given negatives other negatives of equal, or reduced, or of enlarged size, with an ease, exactness, and completeness not obtainable with

any other process. This is of the highest importance for the practical photographer.

If now, after the main principles of Obernetter's process have been partly published, anybody comes with the declaration that he had previously tried a similar process, he might have saved himself the trouble, for his declaration will be—bosh! These after-inventors always come to the front AFTER an important invention has been published. It is one thing to try an idea by experiment and leaving it drop as soon as the first experiment is not a success, and another thing to tenaciously cling to an idea and to persist in experimenting at a great loss of time, maybe for months, until the process has been finally evolved.

In Obernetter's process the after-washing serves to remove, after the emulsification, the excessive soluble bromine salt. Monckhoven referred once to a process in which he avoids the washing. He treated the gelatine with carbonate of silver, and then added hydrobromic acid. The full details never became known. Dr. Szekely, in Vienna, recently recommended a similar process. He dissolves 17 grammes of nitrate of silver in crystals in 150 ccm. of water, then precipitates with a solution of 10 grammes of bicarbonate of sodium in 150 ccm. of water, from which the second equivalent of carbonic acid has been removed, by boiling, as carbonate of silver. (In place of the bicarbonate of sodium one can also use simple carbonate of sodium, which need not be boiled first.) Now wash, filter, and rinse while yet moist into a tumbler with a squirter, so that the volume of the liquid is equal to 150 ccm. By gradually adding strong ammonia (about 20 ccm.) in small portions, until the solution of the carbonate of silver, a clear liquid, is obtained, which, under violent shaking, is poured in small portions in the usual way to the following solution :

Brom. Ammonium, . . .	10 grammes.
Gelatine,	22 “
Water,	150 ccm.

Finally, the silver bottle is again rinsed with 25 ccm. and the emulsion is complete. The emulsion in this state, however, is not yet mature, and must be digested from one

to two hours at from 30° to 40° C., in order to obtain the highest degree of sensitiveness. In any case the emulsion is ready for the mould in three hours after mixing at the latest; it flows and congeals quite perfect, makes soft and very plastic negatives with development with iron oxalate without addition of bromide of potassium, is free of any trace of fog, and is in character the equal of any of the emulsions known to me thus far. The layers dry very nicely upon the plates, and the latter can be used at once after drying. The developer requires no addition of bromide of potassium, as a small excess of brom. ammonium in the emulsion keeps the plates wonderfully clear without deteriorating in the least the sensitiveness.

A few final remarks on this method. The preparing of the carbonate of silver, the washing of the same, and dissolving in ammonia can take place in diffused daylight. The temperature when mixing the emulsion must not exceed from 40° to 50° C. The emulsion is filtered at once after mixing, and poured, from time to time, on a test-plate, in order to determine for the future the duration of the digestion after the temperature used. So long as the emulsion shows transparent, needle-point-like dots, it is not yet mature, and makes too thin negatives. The time of exposure with oxalate of iron lasts from three to ten minutes, according to the maturity of the emulsion and the duration of the exposure. It is well to use up at once the perfectly mature emulsion—that is, to pour it on plates.

The experiment of pressing the dried emulsion in “noodles,” and protecting the same, by watering, from further action by the ammonia, gave gross-grained layers liable to form veil. The process has the one drawback—a small excess of bromide of ammonium always remains, which injures the sensitiveness.

The well-known photographic *carte-de-visite* has reappeared in a new form. In the old form it did not remain true to its original purpose. It was used for presents, but not as a card to announce calls; for which purpose it was, anyhow, almost too large. As a portrait picture it was crowded out somewhat by the cabinet picture, and

the other modern styles. In its newest form, however, it seems at last to fill its true purpose. The photographer Heinrich Graf had the happy idea to make *cartes-de-visite* of 40 x 70 millimetres, cartoon size, with the name of the person printed on the back, the 70 x 35 millimetre large portrait of whom is pasted on the face of the card. The card bears as signature the name of the firm. The cartoons of Mr. Graf are black, the print in gold. The success of the cartoons seems to be assured. It is understood that pictures of above-mentioned size can very easily be made from larger original pictures (boudoirs or cabinets).

Very truly yours,
H. W. VOGEL.

BERLIN, October 30th, 1882.

A SIMPLE DEVELOPER.

BY DAVID COOPER.

SINCE the early part of January it has been my good fortune to visit, professionally, most of the well-known galleries east of the Alleghenies, and the general call has been for a simple, and if possible, a cheaper developer. During this time I have been constantly experimenting on this line, and think I have succeeded in boiling it down to the simplest form yet given :

Saturated Sol. of Sal Soda, . . . 1 oz.
Water, 4 ozs.

The following proportion of pyro may be thrown in dry just when about to develop: two grains to each ounce of water added to the soda solution. Or, to simplify, each morning, make up an aqueous solution of pyro, 2 grains to the ounce as a stock, from which take the quantity necessary to cover your plate when added to the soda solution.

Now comes a most important point. After developing and washing, and before fixing, place your plate in a saturated solution of alum for about half a minute. This serves the double purpose of hardening and removing all tendency to yellow discoloration. In any case do not omit this, or your negative will immediately upon washing become a deep sulphur color.

This developer will (with the CRAMER &

NORDEN dry plate) enable you to make a full-timed negative in one-third less time than any other that I know of.

A majority of the Eastern photographers will no doubt remember our experience on this point.

THE GROWTH AND OUTGROWTH OF AMATEUR PHOTOGRAPHY.

WE have watched with a good deal of interest the growth of amateur photography in this country. The process has been going on for a number of years, but not to any very great extent, until, say, within the last year. A great impetus was given to it, of course, by the ability on the part of manufacturers to produce a first-class emulsion plate; and when it was made known by manufacturers of apparatus that such a plate existed, and that apparatus could be had at a reasonable price, the thing took amazingly. For many years amateur photography abroad has been very largely practised, and we have often devoutly wished that such was the case here, but until recently that wish has not been gratified.

So much for the growth; now for the *out-growth*. This we have also watched with a good deal of interest, and have frequently spoken of what we have seen, more particularly in the warerooms and factories of the Scovill Manufacturing Company, N. Y. The extensive factories and workshops of this company have been more than crowded this last year to meet the demand for amateur goods, the result of persistent and faithful advertising. Their sales have been absolutely marvellous and unprecedented. Through their enterprising and far-sighted agent, Mr. W. Irving Adams, they have stood up pretty well to the demands. And yet this marvellous growth was never sprung upon us so sensibly and emphatically as recently, when an express parcel came into our office, directed to the editor of this Magazine. On opening it, it reminded us of a Christmas package of the good old times. First a tin washing apparatus for emulsion plates was found. This contained a bottle of Wells' collodion. That was hardly in the line of emulsion photography,

but it is of excellent quality, and for the adherents of the "wet," will be found a splendid accessory to the dark-room. With this were a number of books—first, *Ligeras Lecciones Sobre Fotografia*, which is none other than Mr. Price's splendid little book (*How to Make Photographs*) in Spanish. Then the following: *Photography with Emulsions*, by Captain Abney; *How to Make Pictures*, second edition (in English), by Mr. Price; *An Elementary Course in Dry-plate Photography, in Twelve Lessons*; a new catalogue of the American Optical Company, and various circulars pertaining to Scovill's outfits for photographing with the microscope; Scovill's dry-plate lantern for the dark-room; S. P. C. oxalate developing bottle; Osborne's patent picturesque foregrounds; ferro-prussiate paper; Taylor's folding tripods; S. P. C. vulcanite developing trays; Dr. Vogel's emulsion; American Optical Company's special apparatus; Crapeau's actinometers; flintware; Monroe's universal gelatine dry plates, and Scovill's outfits and equipments for the amateur photographer.

All of these are the outgrowth of the amateur business, which has become already so important as to employ an immense staff of help to conduct its business. Certainly we do not think that any other house, or firm, or company can make such a showing as this, and we are glad to rejoice with our friends for the success that has followed their efforts.

The thing continues to grow, and the prospect seems to be that as many amateur outfits will be sold for holiday presents as were demanded by summer excursionists. Do not be afraid, though, ye practical man; all this will be good for you, as you will see.

FROM THE TRANSIT OF VENUS EXPEDITION.

LEAVING New York on steamer *Scythia*, Cunard Line, September 5th, after a fine passage of ten days, arrived in Liverpool, where we remained four days, availing ourselves of looking around and commenting on the photographs executed and shown there. Gelatine plates are being almost exclusively used, with evident advantage in

point of exposure in that foggy place; during the four days here the sun was seen but one day, and then through mist and smoke. We attributed the lack of photographic excellence to the poor light. We left Liverpool on the 20th, and arrived at Poulac, France, twenty miles from Bordeaux, leaving same day; no opportunity to expose plates here. Left for Santander, Spain, arriving there on the 25th, and leaving the same evening. After leaving Santander, the weather was very bad, and on entering the Bay of Biscay, "Oh," true to the old tradition, it literally "churned us" up so that your humble servant wished he had never "gone to sea." You will know all that this means after your own sea experience. Arrived at Corunna, Spain, and between rain and clearing, we (Stanly and self) exposed twelve plates on local subjects in the small plazas—milk-women, water-carriers, oxen and carts, etc.—but were much annoyed by two hundred good-natured juveniles, who would range themselves in front of subjects. A couple of soldier-police kindly tried to help us. Rain prevented our getting Sir John Moore's monument. Departed from Corunna October 26th; arrived at Lisbon, Portugal, on the evening of the 28th. Early next morning we went ashore, and after an hour's delay from custom officers we got to work—procuring a guide who spoke English and taking several equestrian and other statues, gateways, etc. We went by rail to Belem Castle, getting that and interior of Belem Fort; the lieutenant in command doing all he could to assist us. We returned to the city, inspected hurriedly the photographs on show in Corunna and Lisbon, and found the Monckhoven plate the favorite, and also that those who by the wet plate made bad work were now making quite good by dry, and they who produced good work by the wet were not making any improvement when using dry.

Left Lisbon October 29th; on the third day out passed Teneriffe Island, and arrived at San Vincent, Cape de Verde. This is a coaling station. The inhabitants are nearly all negroes, who subsist by the loading and unloading of coal. The island produces nothing, not even grass enough to feed a few

donkeys. We went ashore and photographed; we anticipate fine results from our exposures there, having good views. We found two photographers here, who, by the sale of San Vincent and Teneriffe Island views on board vessels arriving here make a living. The views they sold were very good indeed—Monckhoven plates.

Left San Vincent on the 5th for Pernambuco, Brazil, where we arrived on the 10th; time too limited to do any photographing; left same evening, and two days after arrived at Bahia; rain and bad weather preventing work, but hope to do it on our return. Smallpox quite prevalent. (Forgot to mention that between San Vincent and Pernambuco we passed Convict Island, Fernando di Noronha, we taking flying shots as we sailed past.) Left Bahia on the 12th and arrived at Rio de Janeiro on the 15th. We went ashore and exposed all our plates on views in botanical garden, sky overcast, but having fair light and splendid tropical foliage we hope for fine negatives. Left on the 16th for Montevideo, and arrived on the morning of the 21st. We here left the steamer "Galicia," which had been our home for so many days from Liverpool. We transferred our several tons of freight to the U. S. Steamer-of-war "Brooklyn," the officers of which have given us warm and kindly welcome; our mess being with the ward-room officers, our staterooms being even better than on the steamer we have just left. Montevideo does not offer much for the camera, but we visited Messrs Chute & Brooks' establishment, and saw work here *equalling the best* in the United States, Mr. O. F. Baxter being the operator; he is A 1 and a *Philadelphian*; Daniel Murphey is the printer. The welcome given us by the above gentlemen was more than cordial, Messrs. Baxter and Murphy escorting us around and not permitting us to expend a penny. We had to literally break away from them and go aboard the "Brooklyn." Kindness received in a strange country is not easily forgotten. We are now getting the remaining things necessary for the transit on board, our material changing a man-of-war almost into a freight vessel. But officers and crew are doing all with such a good-will that it makes duty a pleasure.

After Lieutenant G. W. Berry, U. S. N., has obtained his observations needed, we will leave here, it is supposed, on the 26th, hoping to reach Santa Cruz, Patagonia, about November 3d or 4th, where we remain until the transit is over, December 6th. It is thought after leaving here until we return again, forty-five days will have gone by. We cannot receive nor send any mail during that time, and as none of us have received any letters from home, you can easily imagine how we shall look forward for the next forty-five to fifty days to pass.

Very truly yours,

WILLIAM BELL.

MONTEVIDEO, URUGUAY, October 23, 1882.

VOICES FROM THE CRAFT.

PRICES AGAIN.

YOUR November number is just to hand. I admire the views from Egypt very much. What grand temples they built in old times! I wonder, in your trips to Europe, you never took your camera to Spain. There must be some splendid bits there of the old Moorish palaces. I liked your remarks on the late Convention. I had intended to go to it, but business prevented me, and when I saw the report, I was glad I stopped at home.

It is, I know, much more easy to find fault than make improvements; but if I might make a suggestion, it would be that, like other Conventions, the programme be all arranged beforehand by a committee, that each day have its own subject for consideration. For instance, give one day to chemistry, one day to art, a third, and if necessary, the fourth also to *business*, prices, etc. I can see no prospect of comfort or happiness for photographers in the future unless they will make a stand in the matter of prices. In our city of Toronto, you can at this moment get good cabinet photographs for \$2.00 per dozen, and M. Discon, of that city, will make the same by means of electric light for \$3.00.

Now to me photography is not only a means of making bread and butter, but I love it for its own sake, and I know that no man can devote the time and thought necessary to produce good work, for such a beg-

gally pittance as this, and yet it is what we are all coming to unless we combine. What is the result on the mind of the public? Bad in every way. We become cheap Jacks with whom they try to drive a bargain, and too often with success. You say we want a better class of men, and then they would uphold the dignity of the profession. Just so. But how are you going to get a better class of men to devote their time and energy to a business that will only by hard work give them a bare living!

But who can expect a man of genius to put his brains and talent into posing and lighting a negative, if he knows that, when finished, it will not be worth more than two pounds of butter? Now these are hard facts! we can't get round them! and unless a remedy is found, and that quickly, photography will fall into the hands of a worse class of men than ever. It will be a mere choice between making photographs or breaking stone. Combinations of photographers and stock-dealers is the only way that I can see. 'Tis no use for the individual to stick out against it. I have tried it, with this result: I had to give up my business, and leave where I was living. True, I could and did keep the best class of my customers, but they were few, and the bulk of them gradually went to the dollar a dozen man, and I do not blame them in the least. The public at large will not give two dollars for an article they can get next door for one.

This is a matter that affects all in the business, both great and small. Notman & Fraser, in Toronto, have been unable to stand against it, and if they cannot, what chance is there for the rest of us?

R. D. BAYLEY.

SEAFORTH, ONTARIO.

A LITTLE HINT OR TWO.

IN your September number, in looking over the report of the Convention, I was somewhat amused at the different opinions of the Japanned tray. I will tell you what I use, and I have none of the vexations mentioned. Take some light strips $\frac{1}{2}$ by 2, or $2\frac{1}{2}$; make a frame the size you wish (I will say 8 x 10 inches); nail them together, and then with a thin board make a bottom

and fasten it on. Now procure from a harness or carriage shop some *rubber cloth*; it is called rubber drilling, or rubber duck, owing to the quality; the drilling is heavy enough for all purposes. Line well your tray so that it will cover the bottom and sides all in one piece, and you will have something that will last you years. I use it for developing, fixing, and cleaning, also for washing trays. I wish to state once more it is *rubber*, and not *oil-cloth*.

I must say that I cannot speak too highly of *Dr. Garrison's address*; if our *editors* would only try to make their *chemistry* as simple and plain, we would have more of our profession aspiring to something better; but when it is mixed up with French weights and measures, they do not so much as look at it, let alone try to see what there is in it.

I think that I had to read over the article of Mr. Dixon six or seven times; and I am not sure that I understand it now where he says, "now, supposing we have an over-exposed plate, I fill the second bottle up and develop it quickly, etc.;" again, "If you will take a bit of paper and lay the plate under it all at once, etc." If you can make this any plainer, I wish you would do so. I have worked the dry-plate for over a year, and do not use the wet-plate at all.

E. S. WHEATLEY.

DUQUOIN, ILL.

SOCIETY GOSSIP.

ASSOCIATION OF OPERATIVE PHOTOGRAPHERS OF NEW YORK.—A meeting was held at 392 Bowery, November 1st, 1882. In the absence of the President and Vice-President, Mr. Schaidner was called to the chair.

Minutes of last meeting read and approved. Three new members were admitted.

Committee on resolutions reported and handed in a copy as follows:

Whereas, M. Désiré Charles Emmanuel Van Monckhoven, author and scientist, etc., prominent member in our profession, has (to us) unexpectedly terminated a long and brilliant career; and

Whereas, M. Monckhoven has contributed largely to the progress and advancement of our art, therefore be it

Resolved, That we hereby express our appreciation of the eminent services rendered by deceased.

Resolved, That we hereby declare our respectful sympathy with his family and friends.

Signed,

PERRY MCGEORGE,
CHAS. EHRLMAN,
OTTO BUCHLER.

The evening was devoted to an exhibition of a large collection of the latest pictorial works of Mr. H. P. Robinson, of England, having been brought over by Mr. J. Traill Taylor, by whom they were exhibited. The compositions were very fine. One "The Wayside Gossip," took a medal at the exhibition of the Photographic Society of Great Britain. They formed a fine combination of landscape and figures, the latter being grouped so skilfully as to tell their own tale. The views, though pretty English landscapes, scarcely attracted as much attention as did the figures. Also a fine collection of Swiss views made by Mr. William England. Also a few fine English views by Mr. Rouch, of England, were very gratifying to the members.

The subject of the electric light having come up, it was moved by Mr. J. Traill Taylor, and seconded by T. W. Power, that Mr. Schaidner be requested to bring forward for next discussion the subject of electric lighting in its various aspects, with special reference to its application to photographic portraiture; and that, if possible, electric and photographic apparatus be procured with a view to having the operation carried into practical effect at the next meeting. Carried.

T. W. POWER,
Secretary.

PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.—Stated meeting held Wednesday evening, November 1, 1882, the President, Mr. Joseph W. Bates, in the chair.

The minutes of last meeting were read and adopted.

The Treasurer presented a very satisfactory report, showing the Society to be in a flourishing condition. The report was, on motion, accepted and ordered to be entered on the minutes.

The following-named gentlemen were unanimously elected officers to serve for the coming year :

President.—Joseph W. Bates.

Vice-presidents.—George W. Hewitt, D. Anson Partridge.

Secretary.—C. R. Pancoast.

Treasurer.—S. Fisher Corlies.

Executive Committee.—Samuel M. Fox, Chairman; Samuel Castner, Jr., Ellerslie Wallace, Jr.

Committee for Revision of Minutes and Papers for Publication.—John C. Browne, Chairman; George B. Wood, C. R. Pancoast.

Excursion Committee.—Charles Barrington, Chairman; William Hocker, Francis T. Fassitt.

The following gentlemen were duly elected members of the Society: Charles M. Taylor, Jr., John M. Jordan, Henry F. Parker, Robert Hare Powel, Jr., and John W. Croskey.

Mr. Browne exhibited a gelatine negative, showing a curious reticulation of the film, and invited discussion as to the cause, and a reliable method of preventing same. Mr. Carbutt replied that he believed it to have been caused by subjecting the plate to too high a temperature during drying.

A discussion as to the best method of developing instantaneous pictures seemed to show that equally satisfactory negatives could be obtained either with "pyro" or with "iron," the result mainly depending on the skill of the operator.

Messrs. Corlies and Pancoast exhibited some instantaneous views of the Bicentennial celebration on the Delaware.

Mr. Wood showed an interesting series of views of the U. S. men-of-war, those of the Tennessee being particularly good.

Mr. McCollin exhibited a new form of instantaneous shutter.

Messrs. Wilson, Hood & Co. sent for exhibition a new camera by the Blair Tourograph and Dry-plate Co. Although nominally intended for 4x5 pictures, a movable back could be so attached that the same box could be used for pictures as large as 5x8. The whole apparatus was well made and much superior to the average dry-plate outfit. A decided novelty in apparatus, in the

shape of the "knock-down" camera, was also shown. This instrument consists of two boards attached to each other at right angles, forming the bottom and front, the latter carrying the lens in a sliding mount. Three double plate-holders ingeniously held together by a rubber strap form the top and sides, and a ground glass at the back completes the camera. A fourth plate-holder, with those forming the camera, enables the operator to have eight plates at his command. By substituting the various holders the plates may be exposed successively.

On motion, adjourned.

C. R. PANCOAST,
Secretary.

OUR PICTURE.

AGREEABLE to promise made in our last issue, we present as our embellishment this month a mosaic reduction of sixteen of Mr. F. B. Clench's beautiful "Plaque" pictures. It cannot be expected that we can thus give all the effect of the "plaques." We can only show the shape, the design of the mounts, the tasteful trimming of the prints, and the variety of the subjects for which the new picture is appropriate, without, after all, giving that principal element of their charms, the plaque effect, itself. This last consists not only in the photograph being depressed or sunk by means of the cameo press and dies, but in producing at the same time a raised rim all around the depression, which gives the picture a very unique appearance. The rest you can see—how the tinted border, the peculiar trimming of the paper, and the design of the mount, all combine to produce the prettiest picture that has been offered for many a day. By an ingenious addition to his outfit, Mr. Clench also secures an embossed border of peculiar design, which heightens the general effect very much. He has been selling a great many outfits since our last issue to leading photographers all over the land, and we have yet to hear of any one who was not entirely pleased.

We believe the "plaque" is going to have a good run—far better than the "cameo" ever did, for it is much prettier, and Mr. Clench has made it much easier to produce.

We have examined his "outfit," and every part seems to be made neatly, exactly, substantially, and *good*, in every way.

It is rarely that we feel warranted in commending anything so warmly to the attention of the craft as we do this new picture.

Messrs. A. M. Collins, Son & Co. have exceeded themselves in getting out the mounting cards for the "plaque."

Our prints were made on the Dresden paper imported for us by Mr. G. Gennert, 105 William St., New York. Our experience with this excellent paper is that all the sheet can be used to the edges, and often more prints obtained from it than is often the case with other brands.

It has become very popular.

ECONOMY IN WASHING PRINTS.*

BY R. A. KENDALL.

IN small galleries it sometimes happens that the sum total in number of prints are but few, as the result of a day's work; and I believe it is the general practice to finish (by toning, washing, fixing, etc.) each lot at the end of each day. A valuable item was given me on this point some time ago by a member of our craft, and in turn I send it for *Mosaics*. The prints are simply washed in two or three waters, then immersed for five minutes in water one quart, muriatic acid fifteen drops; then dried, and placed away in the dark to await such addition to their numbers as shall justify the final finishing processes.

I will add, the practice is a good one; try it.

Will some one of the readers of *Mosaics* or *Philadelphia Photographer* give us a quick (very quick) solar printing process—a *printing out process*.

DELVING AMONG THE DEVELOPERS.

PHOTOGRAPHIC MOSAICS for 1883 is, naturally, made up largely of contributions of a practical nature pertaining to bromo-

* Written for *Mosaics*, but received too late.

gelatine emulsion work. Indeed it is *rich* in this direction.

The *Developer* and its workings seem to get the largest share of attention, and it is exceedingly interesting to observe how widely opinions differ as to the best formula to use. One party, proving the practicability of his remarks by his work, stands up strongly for the pyrogallic method, while another, whose results are in every way equal, is every bit as firm in his opinion that the *only* developer fit to use is the ferrous-oxalate.

Such diversity of opinion would confuse the beginner were it not for one thing, namely, that it is true that *no* developer is "best" under all circumstances and with all brands of plates. As it is found in printing, that hardly any two brands of albumen paper may be treated by precisely the same formula with equal success, so is it true with dry plates that no two brands will give out their best results by exactly the same means.

It seems to us, that hereafter it would only be fair for our kind contributors to state, as some of them do, in their papers, what plate they use. Meanwhile we will delve a little into what *Mosaics* says, and for further details refer you to its pages.

"As a sort of practical addenda to these somewhat disjointed reflections, let me say that many good dry plates will be saved, and the feelings of many dry-plate makers soothed, if the directions for the use of their plates are read a little more carefully and followed closely. I will give an exceedingly good developer, but will begin it by saying that, by commencing any plate with a weak developer, using only half the iron at the start, and a few drops of bromide, many a plate will give a good negative that would otherwise be ruined.

Developer.

1.—Neutral Oxalate of Potash, 1 pound.
Water, 5 pints.

Make decidedly acid with citric acid.

1.—Iron, 1 pound.
Water, 2 quarts.

Filter, and add 60 drops of sulphuric acid.

To develop, take—

1.—Oxalate Solution, 4 ounces.
2.—Iron, 4 drachms.

Always have ready a bottle of

Water, 10 ounces.
Bromide of Ammonium, 300 grains.

If more intensity is needed, add 10 drops of bromide solution, and continue the development.

Image should show through on the back of the plate. An over-exposed plate needs a weaker developer, and more bromide solution. An under-exposed plate needs a stronger developer, and less bromide solution. Carry the development until the image is well sunken in; don't try to hurry."—J. E. BEEBE, page 92.

"I never pour developer on a dry plate, but prefer placing the plate in the solution, and using very little motion of the solution while developing. And that gives me time to do other things; while if I wish to step out of the dark-room, I place a board over the developing dish. I have no difficulty or trouble. I never intensify or reduce, as either, in my opinion, spoils the negative in a few months.

Don't expect the development to be rapid; one second exposure on a child is enough. Though the negative looks thin, it will print much stronger than you had the least idea of. Keep your hand off the back of the plate at all times. Brush every plate off well before placing in the holder. Save and filter all your old developer, to prepare your negatives for final development with new. Don't add all your iron to the developer at once, as you can add the balance if needed, but can't take it out if too much. Usually half the quantity of iron will do, if using oxalate developer. Place your plate carefully in the holder, and pull out the slide easily, without any jar (having covered the instrument and holder with your common cloth); put in the slide square, and not one corner first; and let simple sense follow "simple thing," and you must succeed."—O. PIERRE HAVENS, page 96.

"Make yourself a developer after the following:

Take one pound of carbonate of potassium,

and dissolve in one gallon of cold water; now add gradually one pound of oxalic acid, and when all effervescence has ceased, filter and bottle; this is stock.

Now make a saturated solution of sulphate of iron, and add one drop to each ounce of pure sulphuric acid.

To make your developer, take two ounces of oxalate solution, and add one drachm of the iron, not two drachms as recommended by most formulas; now expose your plate one-sixth of the time that you would a wet plate; after exposure, and in the dark-room, soak your plate for about thirty seconds in cold water; now pour off and flow the developer gently over the plate, taking care to keep it in motion all the time. If the plate was properly exposed, the image will appear in about the time you can slowly count fifteen, and should continue to develop slowly, but strangely marked in light and shadow like a wet plate. If the image comes out quickly, and the shadows begin to disappear, you may be sure the plate is over-exposed, and you can never make a first-class print of it.

I will now give you a formula for a pyro developer that is excelled by none. It is simple and keeps in stock any length of time; it develops beautifully, and I consider it far superior to the oxalate.

Stock, Pyrogallic.—To $7\frac{1}{2}$ ounces of common alcohol add $\frac{1}{2}$ ounce of pyrogallic acid, and 60 grains of bromide of ammonium previously dissolved in a little water.

Stock, Bromide Solution.—To 14 ounces of soft water add 240 grains of bromide of ammonium and $1\frac{1}{2}$ ounce of concentrated ammonia. Keep both of these solutions in well-corked bottles.

Now, to develop, take 1 drachm each of pyro solution and bromide solution, and add 2 ounces of soft water. This is sufficient for small plates up to 5×8 , and will develop several; it makes a very cheap developer, and after once using you will take no other." —E. P. LIBBY, page 65.

"Well, let's see; we will take the old method of making the pyro developer in three different solutions: No. 1, pyro; No. 2, bromide; No. 3, ammonia. Take four

drops of No. 1, three drops of No. 2, and five to ten drops of No. 3.

I claim that the most skilful worker cannot make his negatives of a uniform character by this method, and with the careless operator it would be simply impossible; he might have his exposure right and developer wrong. Next plate he would change his exposure, and perhaps his solution, too, and be as far out of the way as ever.

In the above case I will give the palm to oxalate. Now we have a later and simpler form of the alkaline developer: stock-pyro in alcohol; No. 1, pyro and water; No. 2, ammonia, bromide, and water. To develop, take two ounces of No. 1, and five to ten drops of No. 2. Here, again, is a chance for variation; this drop business is not right; one is apt to get too many or too few of them, and with variable results. With the above method, as compared with the first, the chances are as two to three in regard to proportion. But by the latter method plates can be developed *much more* rapidly and just as certainly as by the oxalate, and for one-fourth the cost.

Now I come to my hobby. The Edward's formulæ *without* the glycerine.

Stock, No. 1.

Pyrogallic Acid, 1 ounce.
Alcohol, 6 ounces.

Stock, No. 2.

Bromide of Ammonium, . 50 grains.
Ammonia, Concentrated, . 1 ounce.
Water, 6 ounces,

For the day's use we have two other bottles to hold sixteen ounces each; take one ounce of No. 1, fifteen ounces of water; label bottle D. (developer). Take one ounce of No. 2, fifteen ounces of water; label bottle A. (accelerator). To develop (exposure proper), take equal parts of D. and A. What can be more simple? The development is complete in less than two minutes at the most, and the results are *very* even, according to the duration of development.

Now, if this is not a saving in time, bring on the rival method. If a plate is over-exposed (5×8 plate and tray), take two ounces of D. and one ounce of A.; if under-exposed, one ounce of D., two ounces of A.; very simple and definite. Number of drops

of this and drops of that are oftener put in with a squirt than carefully counted. By omitting the glycerine, the annoying bubbles are done away with.

Now, let any one compare this method with oxalate by actual experience. I believe that the above formulæ, costing about sixty-five cents altogether, will develop as many plates much quicker and better than four pounds of oxalate at fifty cents per pound."—G. H. MONROE, page 61.

"The writer has kept a three-grain solution of pyrogallic acid in water over a month, by the use of salicylic acid, in perfect condition. It does not retard the development in the least. The proportions used are as follows:

Pyrogallic acid, . . .	60 grains.
Water, . . .	20 ounces.

to which add fifteen grains of salicylic acid dissolved in two drachms of alcohol. This solution is always ready for use in equal quantity with the solution of bromide and ammonia, for making the developer for dry plates. It would seem, according to the writer's experience, that the decomposition of pyrogallic acid in aqueous solution is very similar to that of other organic substances, and is prevented in the same way."—D. BACHRACH, JR., page 57.

"Those who have occasion to develop gelatine negatives in a hot climate and at a distance from an ice market, not unfrequently experience an amount of trouble and vexation which well-nigh tempts them to forswear gelatine forever.

It is under such circumstances, and after the film has melted, and is seen running down the face of the plate, that the photographer feelingly sighs after collodion, which never plays any tricks of this nature. Gelatine plates we know may now be had which are unaffected by water or solutions of a moderate degree of warmth; but, on the other hand, by far the great majority of plates are not thus callous to thermal influences.

The problem here to be considered is narrowed into a very small compass, and may be propounded in the form of the following question? *How can a gelatine plate be developed when the thermometer stands in the*

vicinity of 90° Fahrenheit, and there is no cold water at hand?

Let us assume that the ferrous-oxalate developer is to be employed. The first thing is to mix and pour it into the bath or pan in which the development is to take place, no more of the solution being employed than is necessary to the perfect covering of the plate. This developing bath must be set into a second vessel of the same form, but much larger, larger at any rate to this extent that a space of not less than half an inch shall exist clear all round and between the bottoms of the two. The outer and larger dish may be made of tin, but it is of importance that it be lined *outside* with wood, felt, or millboard, so as to render it non-conducting.

When all is ready for proceeding with developing, scatter a few crushed crystals of nitrate of ammonium over the bottom of the larger pan, then lift in the other containing the solution, and lastly pour in a quantity of the nitrate of ammonium crystals, so as to fill the space between the sides and ends of the dishes. Next pour in water among the crystals, so as to dissolve them; and this simple act will be productive of a degree of cold so intense as to bring down the fluid to the freezing point, as will be indicated by a thermometer which may be immersed in the solution. This great cold around and outside of the developer quickly reduces its temperature so low as to render it quite incapable of exercising any solvent action on the gelatine film.

In like manner may the solutions of alum and hyposulphite of sodium be cooled, as well as the water in which the plate is washed. This completely meets the case as regards the development of gelatine plates in the tropics."—J. TRAILL TAYLOR, p. 70.

"My own practice has satisfied me that Dr. Van Monckhoven's developer is superior to the formula of Dr. Eder, both in the ease with which it is used, and the quality of the results. And it takes no more time to make it. As the manufacturers of plates give only Dr. Eder's modification of the developer, I herewith give Dr. Van Monckhoven's as I am now using it.

Place upon the stove and boil a tea-kettle full of water.

- 1.—Boiling Water, about . . . 24 ounces.
 Sulphate of Iron, . . . 6 “
 Oxalic Acid, . . . 3 “
- 2.—Boiling Water, . . . 24 ounces.
 Neutral Oxalate of Potash, 8 “

To make the developer—1st. In a small granite-ware or porcelain-lined kettle put the six ounces of iron, and pour about the above amount of boiling water upon it, stirring it with a rod; in about one or two minutes it will be dissolved. Then add the crystals of oxalic acid, and stir for a moment, when the iron will be converted into a yellow precipitate of oxalate of iron, which in two or three minutes, will settle to the bottom of the dish, after which the water should be carefully decanted off, leaving the iron in the bottom of dish; about the same amount of fresh hot water should be added and well stirred, and again allowed to settle and be decanted. This operation should be performed four or five times, or until the acid used is completely washed out of the iron.

2d. In the meantime the oxalate of potash is to be dissolved in about twenty-four ounces of boiling water, and after the last washing has been decanted from the iron, the potash solution is turned upon it, and it is placed over the stove and stirred for about five minutes, when the iron will all be taken up by the potash. When cooled to 85° Fah., it is ready to use. This makes a saturated solution of ferrous oxalate, and if used of this strength will develop a fully exposed plate in about ten seconds. In practice this is too energetic to permit a proper examination of the work; therefore I divide the solution into two parts, one of which I weaken with water until it will consume one to three minutes in the development. The advantages of this developer are that, by the simple addition of water, you can adapt it equally to the most delicate draperies and lightings, or hardness and strength, that are attainable by the old wet process. An under-exposed negative can nearly always be brought up to good printing qualities with the strongest developer, and it is possible to make exposures of an eighth of a second or less in the studio, with good results, by its use.”—J. H. SCOTFORD, page 53.

A FEW HINTS.

BY J. H. SCOTFORD.

A VERY fine lubricator: Sponge over the dry photograph cold water a few moments before burnishing. No other lubrication is needed, and no better or higher polish can be had.

If a gelatine negative refuses in the ferrous oxalate bath to develop sufficient intensity, raise it from the bath, and expose it to the action of the atmosphere for a moment; the improvement is very rapid. This will frequently be found to be very useful.

If too strong mercuric-iodide strengthener has been used, and the silver in the film has been converted to the white iodide of silver, thereby destroying the negative, it can be restored by flowing over the negative a weak solution of sulphide of potassium. This is sometimes useful with other negatives.

The best way to make the mercuric iodide strengthening solution is as follows: Dissolve iodide of potassium (amount indefinite) in water nearly to saturation. Dissolve bichloride of mercury the same. Divide the bichloride of mercury solution into two equal parts. Drop in the potassium iodide into one portion of the bichloride of mercury solution until it has re-dissolved the precipitate and becomes clear and colorless. Now add the other portion of mercury, which will exactly precipitate all the mercury in the solution. Now add drop by drop of saturated hypo soda solution, carefully shaking between each drop, till the red precipitate is exactly dissolved, when the solution should be perfectly colorless. This is your stock solution. To use, take seven drachms of water and one drachm of stock solution. This strengthens slowly but wisely, and no negative need ever be spoiled.

For silver-developing and toning trays, get your tinman to make a pan of Russia iron, with a heavy iron rod around the edge to strengthen it. The best size for a full sheet of paper is 20 by 26 inches. Caution him to make the bottom as level as possible. Now paint it over inside and out, with two coats of pure asphaltum varnish. Such a dish will cost you about \$1.25, and will be the best and most desirable dish you ever

used. Small dishes should be made of roofing-tin, and will cost only about fifteen cents each, all completed for use.

A WHOLE LOT OF THINGS.*

BY A. E. ISAACS.

PRICES the past year have received considerable attention. They have been discussed in the journals, suggestions have been made, plans laid out, the adoption of which has been recommended to photographers as a panacea for this growing evil, viz., making merchandise of a dozen photographs. Agitation and discussion on this subject may or may not be productive of good, but certainly the inauguration of means having for their object the coercion of photographers into the adoption of certain scales of prices cannot but result in failure.

Cheap work is the effect of certain causes and so long as those causes exist (and they are likely to continue indefinitely), so long will the effects follow anything that organization or discussions can do to the contrary notwithstanding. Perhaps, the chief, and most natural, and permanent cause is inferior work and workmen. This, in the writer's opinion, is the least objectionable of all.

That inferior work commands like prices is the inevitable result of a natural law governing all trades and professions. But here also the great law of supply and demand asserts itself quite distinctly.

The photographer whose energy, skill, and enterprise enables him to supply a superior article creates a greater demand for his productions than does his less favored competitor, and as a natural consequence commands higher prices.

This cause, then, is a condition and fact, which always has, and perhaps, always will, exist, and is of itself sufficient to always create a difference in prices. And no kind of warfare can ever regulate it. It is a cause and effect already regular.

In some localities, however, (especially in some of the large cities) there are other causes for ruinous prices far more violent and dangerous in their nature than the

first mentioned, and that is jealousy and spite among competitors.

It is, indeed, surprising to note what injury and punishment some men will inflict upon themselves in order to make it "hot" for another in the same business.

A photographer will sometimes find his business slack, and resolves to do something to increase it. Probably the first thing that strikes him as a feasible plan likely to cause an immediate increase of patronage is a reduction in prices. This seems to him a simple and easy method, requiring no energy or skill to execute. Accordingly he inserts an advertisement in the papers, or gets some handbills printed, announcing his new and "popular" prices. Then he will sit down and wait for the crowd. Now, the question of quality will at once assert itself in the public mind, and the anticipated rush will likely be looked for in vain. Then, again, if his work compares favorably with that of his competitors, they will be apt to meet him half-way on prices, and he is left exactly where he was before the reduction so far as the *account* of patronage is concerned, with the additional humiliating fact staring him in the face, that he is receiving much less remuneration for his work.

How much better it would be if all photographers (those who do average fair work at least) could agree on a scale of prices, stick to it honestly, and work in harmony. One of the secrets of success is regularity in prices; have one price and do not deviate from it for anyone.

It is a mistake which results in nothing but trouble and vexation to yield to officious friends (?) who have "sent you lots of customers; you ought to do my work cheaper." If their request is granted, they are sure to tell their friends what success they met with in "beating their photographer down," and those friends will come and demand the same favor, claiming that, if anything, they have "sent you more customers" than the first.

These transactions are anything but pleasant to the photographer, and should be well considered. We may sometimes receive an offer far below the regular price for certain

* Written for *Mosaics*, but received too late.

work, and be tempted to accept, thinking it is better than nothing, and even quite a profit when counting the cost of material actually needed to perform the work. It will be well in such cases to consider the pleasure and profit of the future, and remember that though now it appears to be a slight gain, it may in time prove a decided loss.

I might say something concerning dry plates, but I apprehend that that subject

will be fully discussed by other and abler writers for the *Mosaics*.

I might remark, however, that, in my opinion, it requires fully as much skill and practice to successfully develop the dry plates as it does to make them. You have to adapt yourself to the variations that the same brand of plates constantly presents, and to accomplish this requires more or less skill and study.

Editor's Table.

ELECTRIC LIGHT IN PHOTOGRAPHY.—Mr. WM. KURTZ, of New York, has favored us with some marvellous effects by electric light, softer and more delicate than any sun lighting. *Soon* Mr. KURTZ expects to *do without sunshine* in his studio entirely, night or day. Of his system and plans we shall have more to say soon. He steps entirely aside from the ordinary methods, and instead of being the slave of his light, his light becomes his helpless vassal.

OUR ORDER-SHEETS await your generous and prompt attention. Please send them all back *well filled*.

VIEWS IN THE ORIENT.—We have at last arranged a catalogue of the views made by us in the Orient, and will send a copy to any applicant. Every photographer can make money by selling these views, and good terms are offered to agents. The prices are high, for which we believe the craft will commend us.

MR. FRANK W. OLIVER, late of Oswego, N. Y., died suddenly November 22d. He was a kind-hearted man, a good photographer, and a loss to his neighborhood and fraternity.

THE photographers of Detroit have formed an association with Mr. JEX BARDWELL as President.

WE notice that the SCOVILL MANUFACTURING Co. have a stock of MONROE'S plates on hand. This really fine plate is meeting with great favor among the photographers of New York, Michigan, Ohio, etc. Its chief recommendations are rapidity, cleanliness, and uniformity. Directions for using these plates, which accompany them, tell how to reduce a negative; how to remove the varnish; and how to reclaim a faded negative. Also how to make plates "tropical" at will. Clear shadows and no frilling. Such men

as RANGER, FURMAN, J. R. MOORE, J. H. KENT, A. E. DUMBLE, and others have used the plates, and pronounce them first-class. They are manufactured by GEORGE H. MONROE, Rochester, N. Y., and his long experience with gelatine dry plates insures success.

MR. L. M. BAKER, Columbus, O., receives some very complimentary notices, from the city newspaper, of the new art parlors he has recently opened, said to be the finest in the county. We wish him all the success he anticipates.

THE *Illustrated Souvenir* is a surprise the SCOVILL MANUFACTURING Co., of New York, are concocting for the craft during holiday-times. We only dare tell what the cover is like, and only partly as to that. Guess the whole from this: "EDDIE and CLARA" are represented in the central group as having actually captured old KRIS KINGLE or SANTA CLAUS long enough to make him sit for his picture, which they are making with their new AMERICAN OPTICAL Co. apparatus. The rest will be told some other time.

"THE WALKER DRY PLATE Co.," Rochester, N. Y., have an advertisement in our magazine and in *Mosaics* which should be read by all buyers of dry plates. Their "Insoluble" plates are something new, and they confidently believe they must serve a useful purpose in the trade. Full instructions are given as to their use, with their price list. A descriptive price list has also been sent us of their "American Challenge" cameras and outfits, which are also highly spoken of. Truly the amateurs as well as the veterans are well taken care of.

PHOTOGRAPHIC MOSAICS for 1883 is ready. 144 pages cram full for 50 cents.

MOSAICS OVERFLOW.—As usual some of the contributions to *Mosaics* came after the book was all made up. No one will lose, however. The overflow will appear in these pages.

Mr. J. H. KENT, Rochester, N. Y., has sent us a series of admirable emulsion negatives of a child, made upon EASTMAN'S plates, which will be printed to grace the first number of our *twentieth* year. It will be interesting to compare this with the work which Mr. KENT made for our Magazine some fifteen years ago.

OUR COVER STUDY this month is from an admirable cabinet child picture sent us by Mr. IRVING SAUNDERS, Alfred Centre, N. Y., reduced by the IVES process. It seems to say "Happy New Year" to everybody, and does credit to the artist who managed the lines.

IMMENSE SALE OF MOSAICS TO ONE HOUSE.—In a circular issued by them to the trade, SCOVILL MANUFACTURING Co., N. Y., say, "Last year we sold nearly three thousand copies, and expect to increase our order for the forthcoming edition."

SO SAY MANY MORE.—Mr. E. C. FRYETT, an operator in Alliance, Ohio, writes, "Your valuable journal is the life of progress in our art."

Mr. C. F. RICE, Chicago, has exceeded himself again in his October catalogue, just issued. It is a model of its kind.

ITEMS OF NEWS.—Mr. G. M. ELTON, late of Palmyra, N. Y., has purchased a half interest at Toledo, Ohio, in the late A. C. NORTH'S studio, and associated with Mr. VAN LOO—a strong team surely. Mr. J. C. LANDY, Cincinnati, Ohio, is highly praised for his artistic talent, by the *Scientific Times*. Mr. ALVA PEARSALL, Brooklyn, N. Y., has made a large addition to the already splendid establishment occupied by him, in order to accommodate the demand made upon him for his new and great picture—the Alvagraph. Mr. L. C. OVERPECK has purchased the gallery lately owned by Mr. L. F. TATTERSHALL, at Hamilton, Ohio. Mr. GEORGE P. PATTERSON, Lebanon, Ohio, receives almost a column of praise, from two of the local papers, of his studio and work.

PICTURES RECEIVED.—Mr. R. D. BAYLEY, of Seaforth, Ontario, has had the handling of two cute children, whom he has used to make up some excellent *genre* pictures. Of these, the one called

"The Hen's Nest" is the most charming. "The Express," and "In the Swing," are also capital things. Mr. BAYLEY is ambitious in this line, and improves all the time. Mr. C. P. HIBBARD, Lisbon, N. H., has favored us with some very creditable 5 x 8 (emulsion) pictures of the scenery in the Profile Notch, N. H. Mr. W. B. GLINES, Norwalk, Conn., has sent us a batch of cabinets. Among them are some subjects printed with palettes and other patterns, as part of the background, by double printing. The effects are rather pretty. Mr. C. A. STACEY, Lockport, N. Y., has sent us the first sleighing pictures of the season, together with some other pictures, the quality of which is very creditable.

A GOOD CHANCE.—Mr. G. M. ELTON, Palmyra, N. Y., informs us that his studio there is for sale, he having moved to larger quarters at Toledo, Ohio; or, if not sold, he desires a good operator to run it on shares. He has a good business, and a good man can keep it up. The gallery has had the run in Palmyra for the last thirty years. There are thirty thousand available negatives, and everything is in good shape for all kinds of good work, having accessories, backgrounds, etc., all up to the times. Look into it.

PHOTOGRAPHS IN NEW SOUTH WALES.—Mr. W. N. TUTTLE, one of our subscribers in Sydney, N. S. W., writes us that WILSON'S *Photographies* has reached him, and says, "I cannot express my appreciation of your valuable book. It is just like striking the 'bed-rock,' so many are the good things lying there. Mr. TUTTLE has just opened a large studio in Sydney, the *fifty-third* one he says he has started.

THE ST. LOUIS PRACTICAL PHOTOGRAPHER, we learn, was sold at auction, November 6, to Mrs. FITZGIBBON.

A SPLENDID SAMPLE BOOK OF CARD STOCK, with new designs, has been sent us from Messrs. A. M. COLLINS, SON & Co., Philadelphia, with a description of the specimens. The border designs are very neat and pretty.

"TO MY PATRONS."—Mr. C. P. HIBBARD has lately received a thousand of this advertising leaflet, and writes of them as follows: "I am much pleased with them, as are those who advertised on the covers. They help to teach a certain class that they don't know the business much better than their photographer."

THE ONLY ONE.—The fourth thousand of WILSON'S *Photographics* is now selling. At least one thousand of its readers have sent us kindly letters concerning it. There has been *only one exception*. This party had it for several months "on trial." After several severe efforts to understand it, he utterly failed, and in his despair wrote us as follows:

FORT WAYNE, IND., June 11, 1882.

MR. WILSON.

DEAR SIR: I return the book, as you told me that I need not pay for it if I didn't like it, and I don't like it at all—nothing in it new, or of any value to me. Respectfully,

J. V. HOVER.

What winged words of wisdom!—the only ones of their kind.

THE MOSS ENGRAVING CO.—A gross blunder has been committed on our part, which we much regret and hasten to correct. In our review of Mr. EBER'S excellent work on "*Egypt*," we announced that the excellent wood-engraving reproductions illustrating it were made by the Photo-engraving Co., of New York, whereas they were made by the *Moss Engraving Co.*, No. 533, 535, and 537 Pearl St., New York. We believe the company we first named is a myth, and has no real existence, so we trust that no one gets the credit we meant to give to the parties who did the work. We hope this retraction will correct any damage done.

"SUBSCRIBE TO THE BEST PHOTOGRAPHIC MONTHLY PUBLISHED."—This sage and excellent advice is printed upon the backs of all the envelopes which come to us from E. & H. T. ANTHONY & Co., New York, and we heartily say *Amen* to them all. Yet why cannot our friends *complete* the thing, and add THE PHILADELPHIA PHOTOGRAPHER is "the best."

"PLAQUE" CARD-MOUNTS.—MESSRS. A. M. COLLINS, SON & Co., Philadelphia, with their usual enterprise and willingness to provide the trade with the newest and best things in their line, have arranged with Mr. F. B. CLENCH, Lockport, N. Y., to manufacture the peculiar designs of card-mounts for his new and beautiful patented *Plaques*. There are two styles at present, and of each style two grades, viz.: "plain" and "gilt-bevelled edge." They are very tasteful, and will doubtless have a large sale, since "The Plaque" is an entirely new departure from the old styles, and at once commends itself. A number of the leading photographers are making them.

A CATALOGUE of the views of Palestine, Arabia-Petraea, and Egypt, made this year, by Mr. EDWARD L. WILSON, Philadelphia, is now ready, and will be sent free to all applicants. Over one thousand subjects for the stereoscope and lantern.

THE CROSSCUP & WEST ENGRAVING Co. have favored us with a very pretty brochure announcing their readiness to do work by the Ives process, and illustrated by five beautiful examples, full page. Every photographer could build up a portrait business by this method. Look into it. The printing of these plates is splendid.

THE ROCHESTER DRY PLATE (manufactured by FURMAN & BARNARD, Rochester, N. Y.), is the last candidate for photographic favor. SCOVILL MANUFACTURING Co., New York, are the trade agents.

TESTIMONIAL FROM A YOUNG OPERATOR. "I wish to tell you of the untold benefit your journal has been to me.—M. M. MUDGE, Valparaiso, Indiana."

MR. GEORGE H. JOHNSON, Bridgeport, Conn., has sent us some admirable lantern-slides made with his new emulsion for transparencies.

MESSRS. ALLEN & ROWELL'S emulsion plates have given us some admirable results. They are made at 25 Winter St., Boston, and in some elements excel any we have seen. They are packed very neatly.

The dry plates made by Messrs. ULRICH & COLCLOUGH, 156 Bowery, New York, the "Manhattan" brand, are also of excellent quality and well worthy of trial by portraitists.

THE interference case of IVES *vs.* PETIT (photo-engraving process) has been decided, and judgment of priority awarded to IVES, November 13, 1882. Messrs. HOWSON & SONS, Philadelphia, were attorneys for Mr. IVES. We congratulate them on the masterly handling of this case.

ZETROPIC views of Mr. MUYBRIDGE'S capital photographs of attitudes of animals in motion six double sheets in a set at \$1, are now supplied by SCOVILL MANUFACTURING Co., New York, who will also supply zotropes, we hope. When we see them, we shall say more of them. The horse is the most graceful, the bull has the straightest tail when it leaps, the dog means the most business, and the deer is the most confused.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

Ye Monthly Bulletin
of L. W. Seavey & Co. Worksh.
No. 8 Lafayette Place N. Y.

HAND PAINTED BLACK AND TINTED MOUNTS.

ASSORTED SIZES AND DESIGNS;
FLOWERS, SHELLS, ETC.
SUITABLE FOR MOUNTING HOLIDAY
PICTURES.

ENCLOSE STAMP FOR SAMPLE PRINT.

ADDRESS, LAFAYETTE W. SEAVEY,
8 LAFAYETTE PLACE, NEW YORK.

FOR SALE.—An old business in a new gallery. As fine a studio as there is in New England. 6,500 first-class negatives. Rapidly growing city; population, 17,000. *Absolutely no competition.* Doing a fine business. Immediate sale necessary. Address Lock-Box 159,
New Britain, Conn.

THE PLAQUE.

Read Mr. Clench's Advertisement.

FOR SALE.—As the undersigned wishes to retire from business, he offers his gallery at a bargain. Population, 6,000. Large north light, with house attached. Address J. S. WALKER,
Mount Holly, N. J.

THE PLAQUE.

Read Mr. Clench's Advertisement.

BACKGROUNDS

PAINTED BY

→ W. F. ASHE ←

Are found in most of the best galleries, not only in the States, but abroad.

NEW BACKGROUNDS AND ACCESSORIES

OF ALL KINDS ARE

BEING CONSTANTLY INTRODUCED.

W. F. ASHE, *Scenic Artist,*

106 Bleecker St., New York,

U. S. A.

New! Chromo-Photo-Linography. New!

Far superior to Chromo-photography on convex glass. By the application of this process every photographer is enabled to produce at a trifling expense and without knowledge of painting the most beautiful style of colored picture, resembling the finest oil-painting on canvas. Durability guaranteed. Process, with full directions, free of charge. Address

H. KRAUS,

Box 451, Scranton, Pa.

THE PLAQUE.

Read Mr. Clench's Advertisement.

THE new book by E. Long, of Quincy, Ill.—Instructions for Working Solar Prints in Crayon—is just what is wanted by every photographer. It *exactly* covers the ground. For sale, also, by Edward L. Wilson, Philadelphia. Price, 50 cents.

THE PLAQUE.

Read Mr. Clench's Advertisement.

THE PLAQUE PHOTOGRAPH, PATENTED.—Photographers desiring a novelty to raise prices on, and something very attractive to the public, will please investigate the Plaque. See other advertisement. Address F. B. CLENCH, Lockport, N. Y.

THE PLAQUE.

Read Mr. Clench's Advertisement.

MAKE YOUR OWN ENLARGEMENTS.—The Patent Gem Solar Camera will print the finest enlargements on albumen, platinum, or plain paper. Only \$60. Send for reduced price-lists of larger instruments. D. A. WOODWARD, Baltimore, Md.



WILSON'S PHOTOGRAPHICS

Shows you how to group and pose children naturally and gives fine examples of work. Read the partial index herein. \$4.

THE PLAQUE.

Read Mr. Clench's Advertisement.

TO PHOTOGRAPHERS.—Send for present bargain list, also a list of your requirements to

GEORGE MURPHY,
250 Mercer St., N. Y.

EAGLE STOCK HOUSE.

Wilson's Photographics. Ready.
Price, \$4.00.

PHOTOGRAPHERS AND DEALERS, ATTENTION.—Thirty assorted artistic views of Washington for \$2.00.

RANALD DOUGLAS,
819 Market Space, Washington, D. C.

NOTICE.

THE WONDERFUL EURYSCOPES and NEW PORTRAIT LENSES.

Just received, a large invoice of the above Lenses. Those who have not succeeded in getting them, will do well to send in their orders at once.

BENJAMIN FRENCH & Co., Boston.

ADDRESS THOMAS POWERS, 392 Bowery, New York City, Secretary of Association of Operative Photographers of New York, for operators, printers, and retouchers.

THE PLAQUE.

Read Mr. Clench's Advertisement.



WILSON'S PHOTOGRAPHICS

Is the most complete, thorough, photo-instruction book ever published. Fourth thousand in store. See advertisements. \$4.

NOTICE OF REMOVAL.—Mrs. Clarke, Artist, late of 561 Druid Hill Avenue, Baltimore, begs to inform her friends and the photographic profession that she has removed to 2104 North 20th St., Philadelphia, Pa., where she will be happy to receive any commission for water-color painting. Terms, etc., on application to Mrs. Clarke, or to the office of the *Philadelphia Photographer*.

THE PLAQUE.

Read Mr. Clench's Advertisement.

THE NEW

EURYSCOPE.

TRY this new lens, and you will never buy any large portrait lenses. Voigtlander & Son's No. 7, and the smaller sizes, are very quick-acting, but as regards large-sized plates, the Euryscopes are far superior for groups, panel pictures, and large heads.

WAYMOUTH'S
No. 18. VIGNETTE **No. 18.**
 PAPERS,

The old form of No. 18, Waymouth's Vignette Papers, oval, has been discarded, and a *new pear-shaped* style is now ready in its place. It is a beautiful piece of gradation and prints perfectly. Price \$1.25 per dozen. For sale by all dealers. See advertisement.

No. 18. NOW READY. **No. 18.**

Wilson's Photographics.
 Fourth Edition—Now Ready.
 \$4.00. Post-paid. \$4.00.

THE SCOVILL MFG. CO., 419 and 421 Broome Street, New York, will forward by mail free to any photographer sending his business card or address, a copy of an illustrated souvenir containing twelve (12) handsome engravings. These books will be issued about Christmas time.

Wilson's Photographics.
 Fourth Edition—Now Ready.
 \$4.00. Post-paid. \$4.00.

S. G. NIXON, Portrait Artist, 813 Arch Street Philadelphia, Pa. Solar enlargements finished in crayon, water color, and Indian-ink in true artistic style, and the likeness and expression faithfully preserved. Also small colored and Indian-ink work, etc. Terms moderate.

THE PLAQUE.
 Read Mr. Clench's Advertisement.



WILSON'S PHOTOGRAPHICS
 DEVOTES 58 pages to instructions in posing and lighting the figure. See advertisements. \$4.

WANTED.—To buy a No. 5, 6, or 7 Euryscope; also a 14 x 17 or 17 x 20 camera-box, double swing-back. Have also a No. 2 Euryscope to exchange or sell. Address PHOTOGRAPHER, Lock-Box 35, Marinette, Wis.

WANTED.—A first-class retoucher and printer who can assist in operating. A man of Christian principle preferred; Situation permanent. Address, with reference and full particulars, WM. R. HAWKES, 74 Meridien St., East Boston.

THE PLAQUE.
 Read Mr. Clench's Advertisement.

EXCHANGE COLUMN.

To accommodate those who have old apparatus, etc., to EXCHANGE (not sell), we offer to insert advertisements in this column at the low rate of 15 cents per line (of seven words), or fraction of a line. It will be found a cheap and helpful way of "unloading" useless articles about your studio for better ones. Cash to accompany all advertisements.

EXCHANGE.—Any one wishing to exchange one-half Voigtländer & Son's tube for some accessories, write to SINGH, Binghamton, N. Y.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

A situation as operator, or in the dark-room. Will take charge of a gallery; experienced in all branches. Address Photographer, care of Thomas Bennett, No. 69 Charles St., Boston, Mass.

A good retoucher is desirous of making an engagement as retoucher with a first-class photographer in some large city, to begin on March 1st, 1883. Address D. A. Berninger, Box 272, Shamokin, Pa.

A general operator—dark-room or skylight, or to manage a branch—wants an engagement. Address Photographer, No. 1688 Third Ave., New York City.

Situation by a first-class operator. Can work at all branches if required, and do clean work. Seventeen years' experience; age, 37; wages, \$16 per week. Address T. Tyler, Easton, Pa.

By a young man as operator in a first-class gallery, understand the business thoroughly. Specimens sent to those meaning business. Address W. A. C., care of J. W. Lees, Howard, Centre Co., Pa.

A first-class printer and retoucher desires a situation in a Southern State; no bad habits, and first-class work. None but first-class galleries need apply. For reference apply to F. A. Bowman, of New Haven, Conn. Address Theodore P. Schurr, Box 946, Norwich, Conn.

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DEAR SIR: Plates received all correct. In need of more, and oblige,

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Yours, respectfully,

PATERSON, N. J., October, 1882.

Please answer at once, as we are
DOREMUS BROS.

GEO. H. MONROE.

DEAR SIR: The plates arrived all safe. I like them. . . .

W. V. RANGER.

Truly yours,

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They seemed to work
W. V. RANGER.

GEO. H. MONROE.

DEAR SIR: Your Dry Plates are the first we ever used, and we were successful enough to make seven good negatives from the first box, every one clean and clear, with good half-tones. After a little more practice will send our testimony, if you wish.

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negatives from the first box, every one clean and clear, with good half-tones. After a little more practice will send our testimony, if you wish.
SHIPLER & Co.

MR. P. B. BRADLEY.

DEAR SIR: I am very much pleased with the Monroe Plates, and find them extraordinarily sensitive and giving soft effects with full detail. Please send, etc. . . .

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Yours truly,

ITHACA, N. Y., Sept. 22d, 1882.

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SPENCER B. NEWBURY, Chem. Lab Cornell University.

FRIEND MONRE.

Enclosed please find P. O. Order, for which send me one gross 5 x 8, one-half gross 8 x 10. Am much pleased with the working of your plates—hardly ever make a miss. I shall ever use any more wet plates, except for copies.

J. ROBT MOORE.

Hurry plates along. Truly your friend,

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Am now using two dry to one wet plate; in fact, don't think
J. ROBT MOORE.

GEO. H. MONROE, Rochester, N. Y.

DEAR SIR: I must write to you about how the plates behave in my hands. If there is any such thing as reaching perfection, you certainly have reached that goal. I have had some experience with three or four different well-known makes of plates. The ——— plates are a good plate, but have one serious drawback—ice-water has to be used, and it is not always to be had in small towns in the South. I lost two fine negatives yesterday by not having cold enough water. I, right after, developed two of yours with same water and developer, and produced two fine negatives, and so easy. I have often read of plates developing as easy as wet plates. I would much rather develop your plates than wet ones. They develop cleaner, quicker, and better, and I am more sure of a good negative than with the bath. I have not lost a single negative from your plate, while I have had many failures with others; so it can not be altogether my inexperience. I shall soon send you another order for plates.

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Yours truly,

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A. E. DUMBLE.

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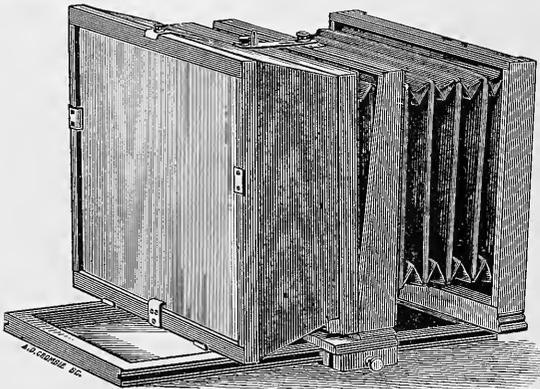
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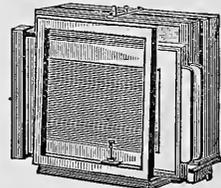
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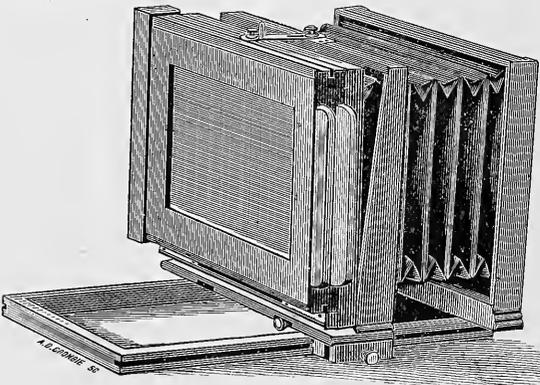
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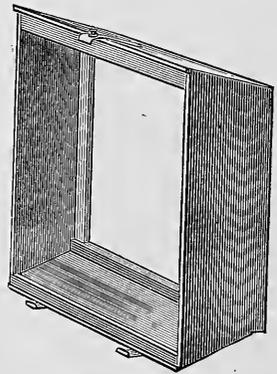
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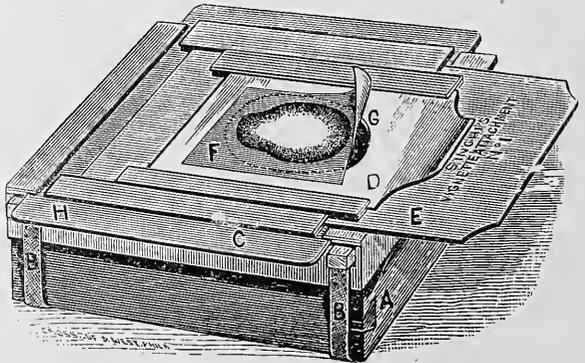
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Very truly, HARRY SUTTER.

MR. G. GENNERT.

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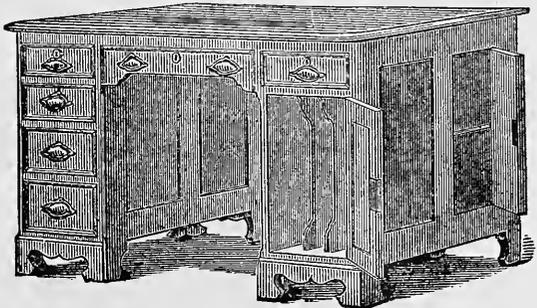
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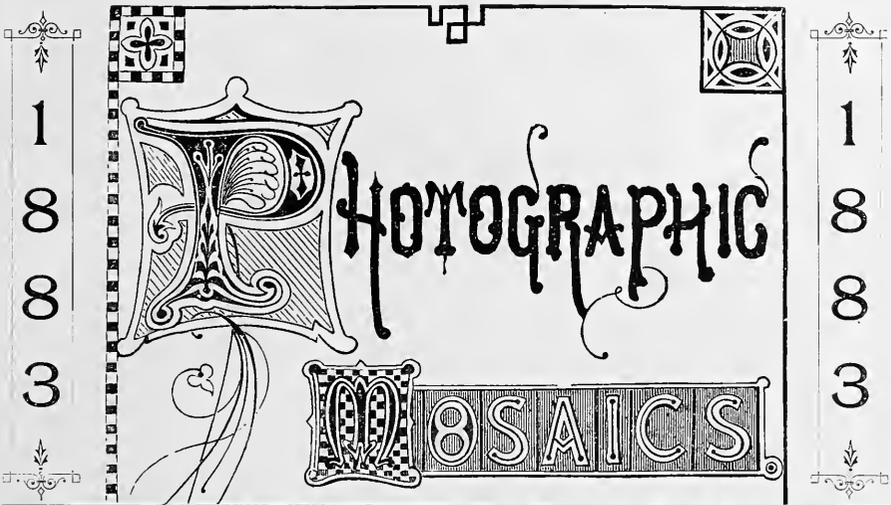
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On Intensifying Bromo-Gelatine Plates. Wm. H. Rau.
The Yellow Precipitate from the Ferrous Oxalate Developer. By H. D. Garrison, M.D.

Producing Artistic Effects in Photography. By W. Irving Adams.

The Silver Printing Bath. By W. H. Sherman.

Something Practical. By M. L. Daggett.

Negative Retouching. By Wm. McLaughlin.

A Method of Mounting Photographs on Thin Cardboard or Paper, so that they will not warp or cockle. By E. Beirstadt.

Science Misapplied. By E. Wallace, Jr.

Things I Don't Like to See. By J. H. Hallenbeck.

A Word for Dr. Van Monckhoven's Ferrous Oxalate Developer. By J. H. Scotford.

Dry-Plate Notes. By C. F. Richardson.

On the Use of Salicylic Acid in the Pyro-Developer. By D. Bachrach, Jr.

Yellow Glass for the Emulsion Dark-Room. By J. Harmanus Fisher.

A Portable and Folding Dark-Room for Dry-Plate Work. By Geo. H. Johnson.

Oxalate or Pyro? By Geo. H. Monroe.

Dry-Plate Practice. By E. P. Libby.

A Word or Two. By Frank Thomas.

Considering Everything, I Like It. By W. McComb.

Developing Common Gelatine Plates in the Tropics. By J. Traill Taylor.

Gems from Germany. By Dr. H. W. Vogel.

French Photographic Fancies. By Leon Vidal.

Please Pay in Advance. By Well G. Singhi.

On the Toning of Ready-Sensitized Albumen Paper. By Karl Klausner.

Stand by the Price. By J. F. Ryder.

Business vs. Art. By E. D. Ormsby.

Three Things that may be Worth a Dollar to Some One to Know. By F. M. Spencer.

Learning by Mishaps. By E. Long.

Dry Plates, or What? By T. M. Schleier.

A Few Reflections. By J. E. Beele.

Business vs. Business. By H. S. Keller.

Simple Things, by a Simple Man. O. Pierre Havens.

The Selection of Objectives for Portraits. By Dr. J. M. Eder.

Photography and Pluck. By H. Müller.

Do Your Best. By Mrs. E. N. Lockwood.

Does it Pay? By S. D. Wager.

How to Save Old Ferro Plates. By H. M. Beebe.

Our Prices. By W. J. Hillman.

Tablets vs. Note Books. By R. E. Wood.

My Experience with Gelatine Bromide. By Edward H. Fox.

The Amateur and the Professional. By M. H. Albee.

My Way—Not New, but Good. By A. W. Cadman.

How to Save the Iron Trays. By Geo. Pine.

Health. By C. J. Billingham.

Printing on Plain Paper. By John R. Clemons.

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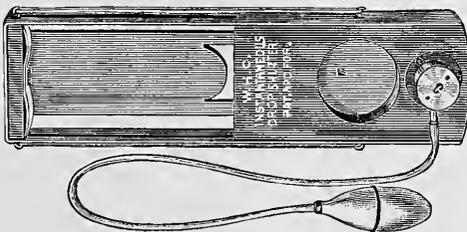
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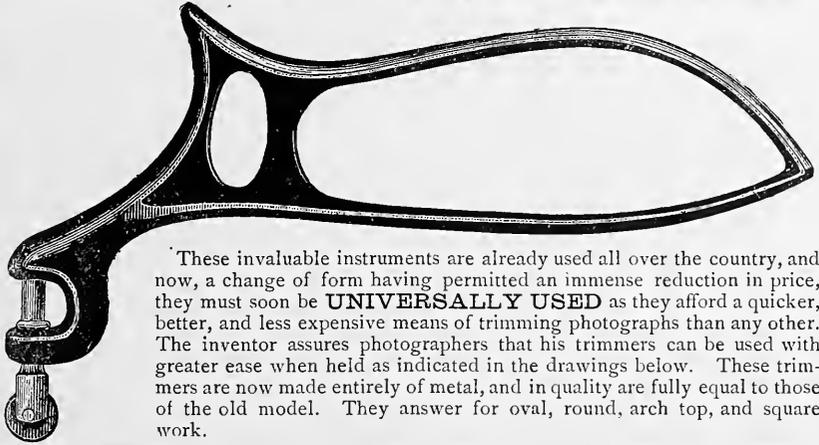
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2 $\frac{1}{2}$ x 3 $\frac{1}{2}$	4 x 5	5 $\frac{3}{4}$ x 7 $\frac{3}{4}$	7 $\frac{1}{2}$ x 9 $\frac{1}{2}$
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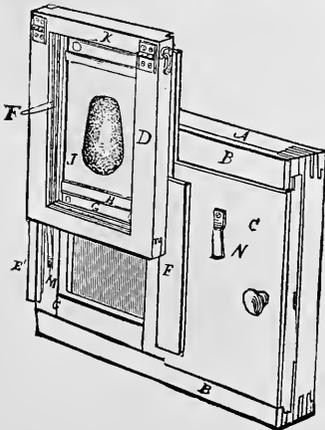
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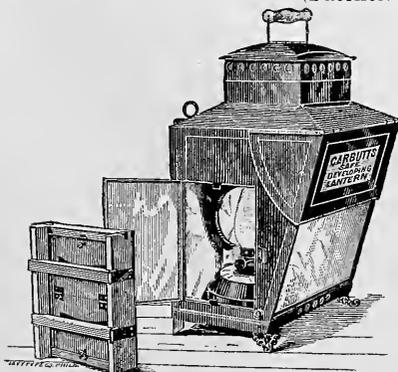
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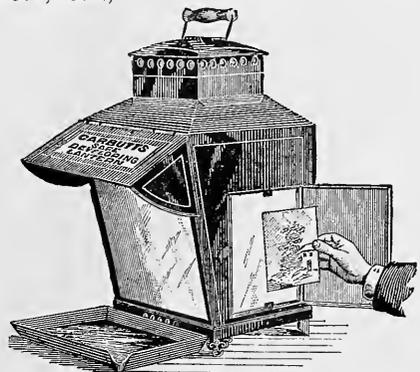
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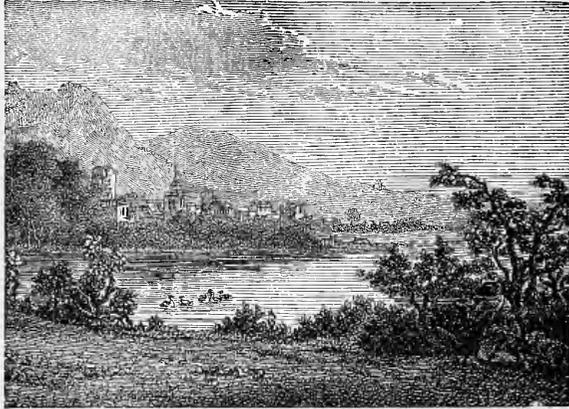
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- XV. Variety and Repetition.
- XVI. Variety and Repetition (continued)—Repose—Fitness.

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- XVIII. Portraiture—The Management of the Sitter.
- XIX. Portraiture—The Pose.
- XX. Portraiture—Groups—Proportion.
- XXI. Backgrounds.
- XXII. Accessories.
- XXIII. Some Old Notions Touching Portraiture.
- XXIV. Chiaro-oscuro.
- XXV. Chiaro-oscuro—Detail or Definition.
- XXVI. Chiaro-oscuro—Various Arrangements of Light and Shade.
- XXVII. Chiaro-oscuro—Various Arrangements of Light and Shade (continued).
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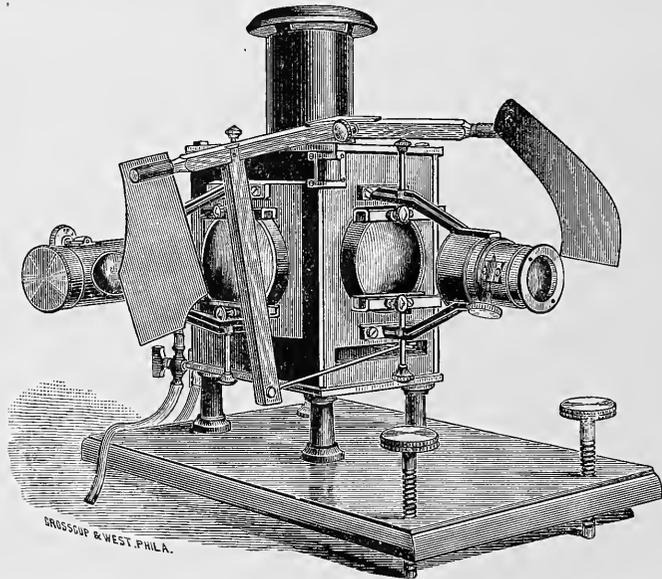
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Vignette Printing-blocks.
Treatment of Negatives before Filling of the Boards. [Printing.
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Medallion and Arch-top Printing.
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Printing the Bendann Backgrounds.

CONTENTS.

Printing Intense Negatives.
Printing Weak Negatives.
A Few More Remarks about Printing—Treatment of Broken Negatives.
Cutting the Prints.
Washing the Prints.
Acidifying the Prints.
Toning Baths.
Artistic Toning.
Fixing Baths and Fixing Prints.
Washing the Prints.
Mounting the Prints.
Finishing the Prints.
Salting the Paper. [Paper.
Positive Baths for Plain Salted Silvering Plain Salted Paper.
Drying, Fuming, and Cutting the Paper. [Printing.
Treatment of the Negatives before Printing—in False Backgrounds.
General Plain Paper Printing.

Waymouth's Vignette Papers.
Further Treatment of the Prints after Printing.
Causes of Failures in Albumen and Plain Paper Printing.
Selection of the Porcelain Plates.
Cleaning the Porcelain Plates.
Albumenizing the Porcelain Plate
Making the Porcelain Collodion.
Coating, Fuming, and Drying the Plates.
Porcelain Printing-boards.
Placing the Sensitive Plate on the Board for Printing.
Printing Vignette Porcelains.
Printing Medallion Porcelains.
Washing the Porcelains.
Toning the Porcelains.
Fixing the Porcelains.
Final Washing of the Porcelains.
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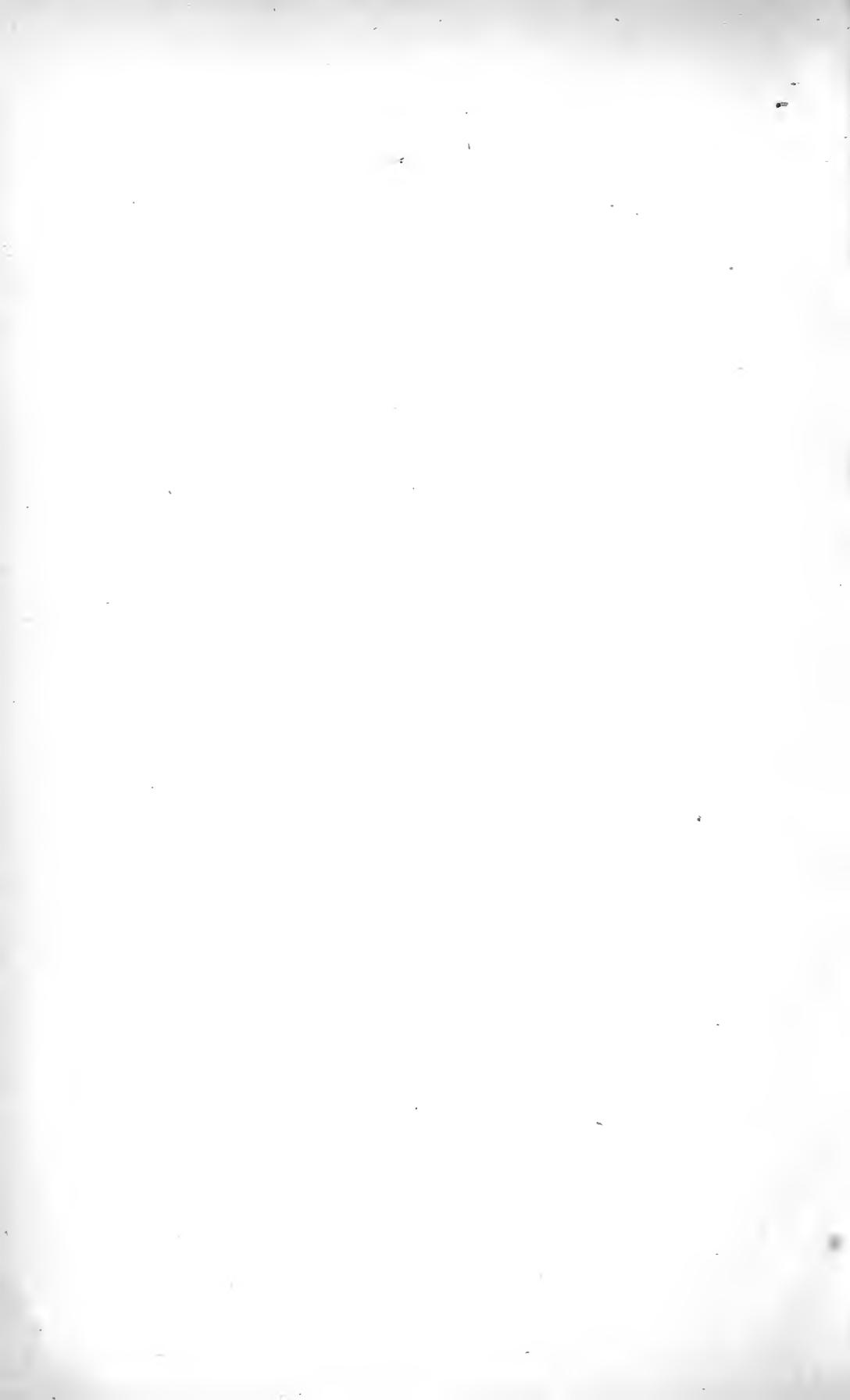
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