

hearing of the appeal, which would be brought on as speedily as possible.—*Daily Chronicle*.

EMULSION PHOTOGRAPHS.—Mr. Wilson's *Mosaics* says:—"Some good and tender soul has, at the expense of a great deal of labour, published in the PHOTOGRAPHIC NEWS a series of 'Twelve Elementary Lessons on the Emulsion Process.' It is one of the most valuable contributions yet made to emulsion literature and instruction; and we are glad to know it has been reprinted in this country, as one of their capital series of photo-monographs, by the Scovill Manufacturing Company, New York. It may be had of all dealers, and is invaluable." The foregoing remarks have reference to the "A B C of Modern Photography," of which a third and enlarged edition is in the press.

PHOTOGRAPHIC CLUB.—On Wednesday next, the 28th inst., the subject for discussion is "On the Preparation of Lantern Slides." It is also a Lantern night. Visitors are invited to attend and bring slides.

To Correspondents.

* * We cannot undertake to return rejected communications.

F. DUX.—The substance of all which has been published will be found in the PHOTOGRAPHIC NEWS and the YEAR-BOOKS, but there is no work in which the various details are collected.

H. H.—1. Doubtless you have added far too much: make a fresh solution. 2. The simplest way is to develop carbon pictures on the glass. 3. Yes; but the front lens (the stop being in the usual position) will give a slight pincushion distortion, while the back lens will give barrel-shaped distortion. 4. You may regard them as practically identical. 5. Certainly.

C. J. DOBBS—J. B. HOLROYDE.—Letters which have been sent for you to our Office will be forwarded on receipt of address.

A. A. CAMPBELL SWINTON.—As far as we know, there has not been any definite advance beyond the point reached by Becquerel.

REGISTERED PHOTOGRAPH.—Mr. William Quin, of Tottenham, desires us to state that he has registered his photograph of the interior of Winchester Cathedral.

HANCO.—Cadmium iodide 25 grains
Ammonium iodide 35 "
Cadmium bromide 20 "
Alcohol 2½ ounces

One part should be mixed with three parts of plain collodion.

Q. R. Y.—An article on the subject will appear in the NEWS shortly.

PETER LINTOFT.—It is acid: stir in a pinch of ordinary whiting.

A COUNTRY PHOTO.—No kind of resinous varnish produces a satisfactory result. You had much better adopt the usual method of producing a smooth surface by rolling or burnishing. 2. The use of the so-called encaustic paste is often advantageous, but care must be taken not to apply too much. 3. The principal objection is the circumstance that the vapour is extremely irritating to the eyes.

COLLODIONIST.—No wonder you have utterly spoiled your bath, as the enamel ordinarily used for lining iron vessels is usually of such a nature as to be very easily attacked by hot fluids, and, moreover, it is almost always cracked and discontinuous. Either an evaporating dish of hard porcelain should be employed, or, better still, the boiling down may be conducted in a glass flask. In this latter case, vigorous ebullition is necessary in order to counteract the tendency of the vapour to condense in the neck of the flask.

LIGHT.—1. We cannot answer by post. 2. Consult our advertising pages. 3. The spots are doubtless due to iron, and treatment with dilute hydrochloric acid will remove them. Remove all traces of the acid by a prolonged soaking in water.

SULPHUR.—There must be some mistake, as no such substance exists.

BULMER HOWELL.—Thanks; your view is undoubtedly correct, but registration is practically valueless if effected after sale.

REX.—Lambert's patent 1874, No. 3633, is, we imagine, the one to which you refer. It is now void, and contains a description of the well-known method of developing a carbon print on a collodion film.

J. R. YOUNG.—There is no book on the subject, but the usual way is to print from a deeply engraved plate on a thin tissue paper, the image being next transferred to the unglazed pottery by pressure.

C. COX.—Perhaps you do not use a substratum; if not, try the experiment.

W. F. & Co.—Next week.

ELEMENTARY LESSON.—Our lesson on silver printing, and several other papers of interest, are unavoidably crowded out this week.

THE EVERY-DAY FORMULARY.

THE GELATINO-BROMIDE PROCESS.

Emulsion.—A—Nit. silver 100 grains, dist. water 2 oz. B—Bromide potassium 85 grains, Nelson's No. 1 gelatine 20 grains, dist. water 1½ oz., a one per cent. mixture of hydrochloric acid and water 50 minims. C—Iodide potassium 8 grains, dist. water ½ oz. D—Hard gelatine 120 grains, water several oz. When the gelatine is thoroughly soaked, let all possible water be poured off D. A and B are now heated to about 120° Fahr., after which B is gradually added to A with constant agitation; C is then added. Heat in water bath for half an hour, and stir in D. After washing add ¾ oz. alcohol.

Pyro. Developer.—No. 1—Strong liq. ammonia 1½ oz., bromide potassium 240 grains, water 80 oz. No. 2—Pyro. 30 grains, water 10 oz. In case of an ordinary exposure mix equal vol.

Iron Developer.—Potassium oxalate sol. (1 and 4) 80 parts, ferrous sulphate sol. (1 and 4) 20 parts, dist. water 20 parts. To each 4 oz. of the mixed developer add from 5 to 30 drops ten per cent. sol. potassium bromide, and 30 drops sol. sodium hyposulphite (1 and 200).

Substratum or Preliminary Preparation.—Soluble silicate of soda 1 part, white of egg 5 parts, water 60 parts. Beat to froth and filter.

Fixing.—Sat. sol. of sod. hypo. 1 pint, sat. sol. of alum 2 pints, mixed. **Cowell's Clearing Solution.**—Alum 1 part, citric acid 2 parts, water 10 parts. Edwards makes this sherry coloured with perchloride iron.

Eder's Method of Intensification.—The negative is whitened by soaking in sat. sol. of mercuric chloride, and after thorough rinsing immersed in potass. cyan. 10 parts, potass. iod. 5 parts, mercuric chloride 5 parts, water 2,000 parts. As film becomes dark brown, the actinic opacity is increased; but prolonged action causes brown tint to become lighter, until at last the negative is no denser than at first.

Fol's Backing Sheets.—A chromographic paste is prepared with gelatine 1 part, water 2 parts, glycerine 1 part, and a very small addition of Indian ink. Strong paper or shirting is coated, and the sheets are laid, face downward, on waxed glass to set. Press to back of glass plate.

THE WET COLLODION PROCESS.

The Nitrate Bath.—Water 14 oz., nit. silver 1 oz., nitric acid 1 drop. Before using coat a small plate, and immerse it for 20 minutes.

Cleaning Preparation for New Plates.—Alcohol 4 oz., Jeweller's rouge ¼ oz., liquid ammonia ½ oz.

Film-removing Pickle for Old Plates.—Water 1 pint, sulphuric acid 4 fluid oz., bichromate potassium 4 oz.

Substratum.—Whites of 2 eggs well beaten, 6 pints of water, and 1 dr. liq. ammon.

Negative Collodion for Iron Development.—Alcohol 1 pint, pyroxyline of suitable quality 250 grains, shake well and add ether 2 pints. *Iodize this by mixing with one-third of its volume of alcohol ½ pint, iod. ammon. 80 grains, iod. cadm. 80 grains, brom. ammon. 40 grains.*

Normal Iron Developer.—Water 10 oz., proto-sulphate iron ½ oz., glacial acetic acid ½ oz., alcohol ¾ oz. The amount of proto-sulphate iron may be diminished to ¼ oz. when full contrasts are desired, or increased to 1 oz. when contrasts are unduly marked. With new bath quantity of alcohol may be reduced to ¼ oz.; but when bath is old more is wanted.

Intensifying Solution.—Water 6 oz., citric acid 75 grains, pyro. 30 grains. When used, add a few drops of the silver bath to each ounce.

Lead Intensification.—After neg. washing, immerse in dist. water 100 parts, red pruss. potash 6 parts, and nit. lead 4 parts. When it is yellowish white wash and immerse in liquid sulphide ammon. 1 part, water 4 parts.

Fixing Solution.—1. Potass. cyanide 200 grains, water 10 oz. 2. Sat. sol. of sod. hypo.

Varnish.—Shellac 2 oz., sandarac 2 oz., Canada balsam 1 dr., oil of lavender 1 oz., alcohol 16 oz.

PRINTING PROCESSES.

Albumen Mixture for Paper.—White of egg 18 oz., 500 grs. ammon. chlor. in 2 oz. of water. Beat to a froth, stand, and filter.

Sensitizing Solution.—Nit. silver 50 grs., water 1 oz., sod. carb. ½ gr.

Acetate Toning Bath.—Chl. gold 1 gr., acet. soda 20 grs., water 8 oz.

Lime do.—Chl. gold 1 gr., whiting 30 grs., boiling water 8 oz., sat. sol. chl. lime 1 drop. Filter cold.

Bicarbonate do.—Chl. gold 1 gr., bicarb. soda 3 grs., water 8 oz.

Fixing Bath.—Sodium hypo. 4 oz., water 1 pint, liq. ammon. 30 drops.

Reducer for Deep Prints.—Cyan. potass. 5 grs., liq. ammon. 5 drops, water 1 pint.

Encaustic Paste.—Best white wax 1 oz., oil of turpentine 5 oz.

Sensitizing Bath for Carbon Tissue.—Bichromate potash 1½ oz., water 30 oz., ammonia 1 dr., methylated spirit 4 oz.

Enamel Collodion.—Tough pyroxyline 120 grs., methylated alcohol 10 oz., ether 10 oz., castor oil 20 drops.

Mountant.—1. Fresh solution of best white gum. 2. Fresh starch.

Collotypic Substratum.—Soluble glass 3 parts, white of egg 7 parts, water 10 parts.

Collotypic Sensitive Coating.—Bichromate potash ½ oz., gelatine 2½ oz., water 22 oz.

Collotypic Etching Fluid.—Glycerine 150 parts, ammonia 50 parts, saltpetre 5 parts, water 25 parts.

Printing on Fabric.—Remove all dressing from fabric by boiling in water containing a little potash, dry, and albuminize with ammonium chloride 2 grammes, water 250 cubic cents., and the white of 2 eggs, all being well beaten together. A 70-grain silver bath is used, and the remaining operations are as for paper.

Cyanotype Printing.—Water 1 oz., red prussiate of potash (ferri-cyanide) 1 dr., ammonio citrate of iron 1 dr. Prepare and preserve in the dark. Float the paper and dry. Fixation by mere soaking in water.

VARIOUS.

Luckardt's Retouching Varnish.—Alcohol 300 parts, sandarac 50 parts, camphor 5 parts, castor oil 10 parts, Venice turpentine 5 parts.

Matt Varnish.—Sandarac 18 parts, mastic 4 parts, ether 200 parts, benzole 80 to 100 parts.

Encaustic Paste.—Best white wax, in shreds, 1 oz., turpentine 5 oz.; dissolve in gentle heat, and apply cold with piece of flannel.

FERROTYPES.

Collodion.—Ammonium iodide 35 grains, cadmium iodide 25 grains, cadmium bromide 20 grains, pyroxyline 70 grains, alcohol 5 oz., ether 5 oz.

Bath.—Silver nitrate 1 oz., water 10 oz., nitric acid 1 drop.

Developer.—Ferrous sulphate 1 oz., glac. acetic acid 1 oz., water 16 oz.

Fixing and Varnish.—Same as wet collodion process.