



A POSE, BY MORRISON, CHICAGO.

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THE
CANADIAN PHOTOGRAPHIC
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THE
Canadian Photographic Journal.

GEO. W. GILSON, Editor and Business Manager.
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Renewals.—Subscribers wishing the JOURNAL stopped at the expiration of their subscription should notify us to that effect; otherwise we shall consider it their wish to have it continued.

Articles Solicited.—Contributions are invited on every subject relating to photography, also practical ideas, helpful suggestions, useful formulæ, etc. Payment will be made on accepted articles if required, but unless distinctly asked for, all articles will be accepted on the understanding that credit on subscription will be considered sufficient remuneration.

Answers to Correspondents.—Questions to the EDITOR on any subject pertaining to photography are invited, and will be answered as fully as possible through the columns of the JOURNAL.

We want Agents in every city in Canada and the United States to push this JOURNAL, with whom satisfactory arrangements will be made. We would esteem it a great favor to hear from, or be placed in communication with, persons desirous of making money.

Address all communications to

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EDITORIAL CHAT.

WE are very gratified as well as pleased to find this JOURNAL has so many people on its subscription and advertising lists who are real friends as well as subscribers and advertisers. It is said that adversity shows one their friends, and we have had a chance of testing it. The result is most complimentary to the JOURNAL and is the one redeeming feature of our late loss by fire. Letters of sympathy have come to us from all parts of the world, a large number containing a few words of encouragement and a paid renewal subscription or advertising account, many of them not being due for some time to come, a very solid way of offering encouragement. We wish to publicly thank these kind friends, who are now of such a formidable number as to almost make it impossible to write each one, for their kind words and deeds. We must not omit in this class the many new friends who have sent us their first two dollars, saying: "We intended doing this before, this is a good time to start and will stick by you now," etc.

In the report of the Photographic Society of Japan, under the heading "Club Notes," will be found this month an interesting description of developing partially printed prints on Solio paper; also a very instructive demonstration of the Kalotype process, by Messrs. W. R. Burton and T. Kondo. This process is comparatively easy to work and is inexpensive. With all negatives that are not too dense, it gives results that are very satisfactory; with thin negatives it works extremely well. For a society report this one is especially interesting.

We would call the attention of our readers to the preliminary description given in another column of a special exhibition of photography in its applications to the arts, sciences and industries throughout the United Kingdom and Colonies, to be held at the Imperial Institute during 1895. Also to the letter given under "Letters to the Editor" from the Secretary of Ontario. It is to be hoped that Ontario will be well represented in this exhibition. We shall endeavor next issue to give fuller particulars.

A HIGHLY commendable move towards the advancement of photography is that lately made by the P. C. of the U. K. Our valued English contemporary, *Photography*, speaks of it as follows: "At the last meeting of the council of the Photographic Convention of the United Kingdom, the first steps were taken to enlarge the scope of that institution's work, and to remove from it the imputation that it was but a holiday-making society. It has, in short, by its recent resolutions, at once gone into the very rank of bodies established for the purpose of encouraging photography, and in so doing has given a lead to much older associations. Having by the energy and careful management of the late secretary, Mr. F. P.

Cembrano, jr., found itself in possession of a good balance on the right side, it is placed in a position which it has hitherto unoccupied, and it was decided that so far as the funds of the Convention permit, grants be made at the discretion of the council in aid of the expenses of original investigations relating to photography. Further than this, it was also decided that the council award in each year a medal for the most important contribution to the progress of photography made during the year, it being at the discretion of the council to withhold the medal, if no discovery or paper is regarded as being of sufficient merit. Some of our readers may not place much value upon a medal, and certainly we should not if the medals were given as indiscriminately as they are at some photographic exhibitions. But there are medals and medals, and in the case of the Photographic Convention, no award will be made except for an important original discovery or addition to our photographic knowledge, whilst as no more than one medal will be given in each year, and possibly one only in two or three years, the possession of a convention medal will be something really indicative of good work done. We congratulate the council of the Convention upon its progressiveness, and shall look forward with much interest to see who will be the first recipient of its medal."

A UNIVERSAL standard for lens screw fittings would undoubtedly be greatly appreciated by all users of the camera, and considerably lessen the work of the manufacturer. In regard to a recent movement made to introduce such a standard in America, the *Amateur Photographer* says: "We have had to acknowledge our indebtedness to our American friends for many good things. They might return the compliment now and

acknowledge that they are indebted to us for something, for through the Royal Photographic Society a set of standard screw fittings has been forwarded to the photographic section of the American Institute, N.Y., so that they may become samples for the leading American opticians. Our good friends, the editors of the American journals, might put a helping word in their pages so as to induce the demand for such fittings, which in England are becoming more general and more indispensable every day."

LYING on our desk is one of the most unique invitations we have ever received. It comes from Mr. F. R. Parsons, of St. Louis, and invites us to join him and a few photographic friends in a smoke at his new gallery, "The Studio Grand," one of the finest appointed studios in the States. The invitation is tastefully printed on a card, to which is attached by ribbons a small corncob pipe and bag of fragrant tobacco. May good luck and prosperity attend Mr. Parsons in his new quarters is the wish of this JOURNAL. We shall endeavor to give our readers a description of "The Studio Grand" next issue.

OF OUR set of 1893 competition pictures now in the hands of the Ottawa Camera Club, the secretary of that club says :

"We had a very enthusiastic gathering on the night of January 19th, when the prize photos were placed on view to the members and their friends, of whom there were nearly a hundred present.

"The pictures were well hung, and of course were greatly admired, those of Messrs. Stieglitz, Post, Moore and Bayley particularly. They are splendid samples of landscape work, and the exhibit will, I am sure, prove of great benefit to our club as a whole."

The Ottawa *Free Press* notices the exhibit as follows :

"A very enjoyable evening was spent at Brouse's Hall on Saturday, January the 19th,

when the members of the Ottawa Camera Club gave their friends a treat in the form of an exhibition of prize photographs kindly loaned by the CANADIAN PHOTOGRAPHIC JOURNAL, of Toronto.

The pictures, of which there were over a hundred, were specimens of the very best work in the landscape line by the leading amateur photographers of the United States and Canada, and were greatly admired by all present."

The pictures and slides received in our 1894 competition are now on view at the rooms of the Ottawa Club, having been forwarded there from the rooms of the Hamilton Camera Club, where they were exhibited to a large number of members and friends. The *Times* of that city has the following to say of them :

"A FINE PHOTO EXHIBIT.—The announcement that the prize collection of amateur photographs, kindly loaned the Camera Section of the Hamilton Association by Mr. Geo. W. Gilson, publisher of the CANADIAN PHOTO. JOURNAL, was on view at the museum interested a large number of visitors yesterday, among whom were many students of the Art School and Ladies' College. In the evening 50 slides, including the prize winners, were shown on canvas. Mr. S. H. Briggs and President Moody had charge of the exhibit. The members of the Hamilton club congratulate Mr. Gilson for his enterprise, and strongly recommend other clubs throughout Canada to avail themselves of the privilege of examining these beautiful specimens of landscape, marine and genre studies."

We shall be pleased to lend these pictures to any club that has not seen them on application for dates.

PLATE-MARKING.—An exchange says that a somewhat novel method of "plate-marking" mounts was demonstrated at one of the late meetings of the Richmond Camera Club. It consists in cutting a piece out of a sheet of cardboard, the size of the plate-mark, and using it as a die, while the other portion, from which it was cut, forms a mould. Between the two the mount is placed and the whole subjected to

pressure in a copying press. The method answers well. There are, however, other simple means of plate-marking which yield good results. Here is one: Cut a piece of hard cardboard the size of the desired mark, and *slightly* round off the corners. Place this on the bed of a rolling press, and on it the print to be plate-marked; after it has been rolled, back up with a couple of thicknesses of blanketing as used by copper-plate printers, and pass through the press. The print will then have a better appearance than if the mount had been impressed first and the picture mounted on it afterwards. If a number of prints of the same size have to be dealt with, it will be well, instead of cardboard as the "plate," to use a piece of sheet zinc. If a rolling press is not at command, an ordinary letter copying press will do as well, but, in that case, an extra thickness of blanket will be desirable. With an elastic backing, such as printers' blanketing or sheet india-rubber, no mould or matrix is necessary. In order to secure accurate registration of the marking, a sheet of paper should be cut the size of the mount, and the die fixed in position to it with a touch of gum. All that has then to be done is to lay the mounted print exactly over the sheet of paper.

LANTERN SCREENS.—From a recent report of the annual *conversazione* of the Port Elizabeth Amateur Photographic Society, it seems that a little novelty in connection with lantern screens was shown. Instead of the usual plain white sheet, the screen was embellished with a tastefully designed border. It is a little surprising that lantern screens are not generally provided with a border of some kind to relieve the plain, monotonous appearance of the sheet when the lights are turned up. It may be argued that the introduction of a

border would necessitate a larger sheet; so it might, but not to any great extent. A ten or twelve inch ornamental margin on a ten-foot screen would be quite sufficient, and would be far more agreeable to look at than the raw edges of the fabric.

THE LATENT IMAGE.

TRANSLATED FOR THIS JOURNAL FROM
THE GERMAN OF R. ED. LIESEGANG,
BY C. H. FAIRBANKS.

The operations in the living organism cannot be fully explained, unless considered from a chemical and a physical standpoint and also with reference to characteristics of structure.

So it is also with a great many photographic processes.

We believe that the nature of the latent image has so far remained a deep secret from the fact that we have been too one-sided in our investigations.

The solution of this problem has indeed been sought from different standpoints, but the chemist and the physicist have not proceeded with it mutually. The physical theory of the latent image (which is now almost entirely forsaken) is exactly opposite the chemical.

A strict chemical theory cannot suffice, as I have recently shown* by the comparison of the action of hyposulphite of soda and developer on the latent bromide of silver image. Not only the bromide of silver molecules which have been exposed, but also a number that have not been acted upon by the light must give up their bromide of silver to build up the image.

I then explained this by the theory that the reduction in the developer takes place slowly from an exposed to an unexposed grain of bromide of silver similar to the action in fermentation.

* Photo. Archiv., 1894, page 81.

I dropped this theory later, because another fact offers an explanation. In the exposed bromide of silver film we have the same anatomical relation as in the printed out chloride of silver image. A *grain* of bromide of silver, which is composed of a great many *molecules* of bromide of silver, is decomposed only on the one side which is toward the light. The light cannot penetrate to work on the inside of the compound, because the effective ray is completely absorbed by the outer surface. The fermentlike progression of the reduction now takes place as I explained in the first theory, but only inside of a single grain of bromide of silver. The former inference that it takes place from one grain to another is no longer necessary.

Further, it is comprehensible why a dry plate prepared with a ripened emulsion requires a shorter exposure than one with an unripened emulsion. We have ground for the strange assertion that the bromide of silver in the first is not more sensitive than in the latter.

Kogelmann, in an essay* which must have appeared about the same time as the article above named, has arrived at results that can easily be made to harmonize with this. To him the structure of the exposed grain of bromide of silver is more important than the question of the existence of oxide of silver salts. He also believes that more is to be expected from the mutual attack by chemistry and physics—from a stereo-photochemistry—than from pure chemistry (at least one can read such between the lines of his book).

He says that the bromide of silver in the dry plate is in small and larger grains imbedded in the gelatine; these little grains, the smallest of which have a diameter of .0003mm., are separated

from each other by gelatine. Each grain is composed of molecules of the composition Ag. Br.

Now Kogelmann estimates that the diameter of a water molecule is .00000044mm. — the diameter of a single bromide of silver molecule about .000001mm. "The form of these molecules has not yet been determined, but for the sake of simplicity we will call them cubical in shape. Now we will consider a grain of bromide of silver of medium size—say one of .001mm. diameter; or, as we will also present it as cubical in shape, one the side of which is .001mm. long. As this cubical grain of bromide of silver is exactly 1000 times larger than the accepted size of the cubical molecule, we find that this grain of bromide of silver contains $1000 \times 1000 \times 1000 = 1000$ million molecules.

Of these, which Kogelmann believes to have isolated, only about one million are affected by the light; the remaining 999 million molecules of the grain remain unaltered bromide of silver. (Hence the ratio of the silver in the image directly fixed, to that in the image developed and then fixed is not 1:2 as the previous theory would call for, but about 1:1000, which corresponds much nearer to fact).

"We will now calculate the number of molecules which (mosaic like) constitute or lie on the outer surface of our cube of bromide of silver. This number is $1000 \times 1000 = 1$ million molecules for one square side, and six million for the six sides of the cube. We have calculated the number of altered molecules in the longest normal exposure at one million. This one million molecules is thus in the outer surfaces of the cubes. As this is an ample calculation for long exposures, it will be so much the more for short ones."

*Fr. Kogelmann, "Die Isolirung der Substanz des latenten photogr. Bildes." Graz, 1894.

“The number of bromide of silver molecules altered by the light in a short normal exposure is not as great as the number of outer surface molecules in the grain of bromide of silver of about .001mm in diameter.”

That these altered molecules must actually lie on the outer surface of the compound is proved by chemical means: the normally exposed latent image is destroyed by substances which impart bromine, for example, bromide of iron. It can no longer be developed by alkaline pyrogallol acid. On the contrary if these bromide molecules were on the inside of the compound, they would be, as Kogelmann suggests, protected from the bromination by the unaltered molecules of bromide of silver.

Thus this theory also deals with complex molecules which are composed partly of pure bromide of silver molecules and partly of decomposed bromide of silver molecules, each kind lying in a characteristic manner beside the other.

Kogelmann's calculation would have been in better accord if he had taken into consideration the fact that under ordinary circumstances the grain of bromide of silver is exposed on only one side. Ordinarily then the molecules of only one side of each cube are altered by the light, thus it equals one million.

I will return later to other points in Kogelmann's interesting work, which do not deal with such relations in structure.—From *Photographisches Archiv*.

MECHANICAL DEVELOPMENT.

One of the first desires felt by those who take up photography to the extent of developing the negative as well as pressing the button, is that some way might be devised of holding back the

development of the high lights while the details in the shadows are being built up. In developing, one of two plans is usually followed. The one consists of mixing the developer in certain proportions and then using it for all plates indiscriminately, while the other plan is to manipulate the developer to suit the requirements of the particular plate being developed.

The first method is based on luck, and the results are good or bad according to whether the mixture happens to suit the plate and exposure or not. The usual directions regarding the latter mode of developing are that a weaker developer than normal shall be used as a base, and to it shall be added old developer or bromide to restrain, pyro or eikonogen to give strength and density, and an alkali to bring out detail, as it is found the character of the plate demands from its being either undertimed, just right, or overtimed.

The principal objection to this method, however, is that after a half dozen plates have been developed, requiring varying additions of different chemicals to make up for different exposures, the product in the developing dish is like hotel hash—full of useful ingredients, but in what proportions no one but an analytical chemist can determine.

Without a doubt more plates are undertimed than overtimed, due to the fact that the shutter must be speeded to a quicker movement than that of the object taken. This is especially true of scenery when the wind gives motion to the foliage in the foreground; of large groups and snap shots in general, especially those taken of children and babies. The light in rapid out-door portraiture, when weak enough to allow a natural expression about the eyes, is usually too weak to give much detail in the shadows. The matter is further

complicated when a portion of the plate is overexposed and another portion underexposed:

When a plate is underexposed, and less pyro and more alkali is added to bring out the detail, it frequently occurs that the details which show in the developing dish either partially or altogether disappear in the fixing bath, leaving only a slight trace on the film. This is due to the fact that the reduction made in the amount of pyro for the purpose of giving less density to the high lights causes an absence of real strength in the detail in the shadow. For more than a year I have found that much better results can be obtained in developing plates by adopting the following method :

The exposed plates when taken from the holder are immersed in cold water in winter and in ice water in summer, where they are allowed to remain for three or four minutes, until the film and glass are chilled. The developer is prepared on the basis of normal exposure, and if made from powders is mixed with ice water, or if in fluid form is submerged in a thin glass bottle or vessel in ice water, until it is much cooler than ordinarily used. When the plate is placed in the developer the action is restrained by the cold developer, so that in event of an overexposed plate being immersed the same result is obtained as by the use of bromide or other restrainer. If the plate has received either a normal or underexposure the high lights will first appear slowly; and the moment they begin to show the plate should be lifted horizontally out of the developer and allowed to rest on the two edges of the tray, so that the plate will be in a horizontal position, thus preventing the flow of the thin layer of developer in any direction; or, better still, in an empty

tray with ribbed bottom. The plate should be allowed to rest in this position until the point is reached where it would otherwise begin to dry on the surface, when it should be immersed for a moment and again placed in the same position. This should be repeated until all the detail is developed, when the plate can be placed for a short time in the developer for a general increase in density. The only precaution necessary to be observed is to have sufficient developer in the tray to immediately cover the negative, which should be immersed by lowering it from one end, thereby allowing the developer to sweep over it. It is well to pass a swab of absorbent cotton over the face of the negative when in the developer to remove any air bubbles or foreign substance. By this method of manipulating the plate it is possible to force out the details of the shadows without making the high lights too dense. Attention has been called in the past to the value of exposing the plates to the air during the process of development, on account of the increased action of the developer, due to the oxygen of the air; but this will not explain the fact that under this process the high lights are restrained and the details in the shadows built up. When the plate is raised from the developing fluid there is immediately overlying all portions of the negative a very thin film of developer. Where the high lights underlie the developer a rapid chemical action is at once started, and the strength of the developer exhausted. Where shadows underlie the developer the action is slow, and the developer exerts its full strength on the slight impression made by the light. The entire plate is subject to the action of the developer, which is exhausted at different points, proportionately to the action of the light

on such points, during the exposure of the negative in the camera. On this account it is only possible for the high lights to be affected to the extent of the energy in the developer immediately overlying such high light, while the shadows are practically subject to the continued action of the full strength of the developer.

If, for the sake of illustrating the method, it is admitted that the energy of the developer overlying the high lights is exhausted in say one-third of the time the plate is out of the developer, then the result is equivalent to giving the shadows three times the effect of the developer as compared with the high lights.

In developing plates overexposed in some parts, and underexposed in others, good negatives can be obtained by developing one part or the other to a normal condition, and after fixing and drying, coating the portion of the plate which is satisfactory with Carbutt's roxyline, and then reduce or intensify the balance of the plate, the coated portion being unaffected during the process. The roxyline can be applied around the edge of portion to be covered with a camel's hair brush, the balance covered by flowing the preparation. In instantaneous views of scenery it sometimes happens that the faces of those who may be introduced to give the picture life are too much on the brunette style to suit either the subject or the photographer. By coating all the plate except the faces they can be improved by intensification.

The natural tendency of keeping the plate so much in the air is, especially in summer, to raise the temperature, which decreases the crispness of the image. By keeping the developer cold this is corrected. A piece of pasteboard placed between the developing dish and

a ruby lamp prevents any trouble from fog. Another advantage in this form of developing is that two plates can be developed at the same time with little difficulty, as one or the other of them can be kept out of the developer. Other parties who have tried this method have found it to work satisfactorily. In developing out-door portraiture it prevents chalkiness in the high lights, while trying to build up the details of the shadows, and gives a smoothness and roundness to the arms and face that it seems otherwise impossible to obtain. Another great advantage in this method is that the developer, except that its energy has been reduced, is the same when the last plate is developed as when the first was put in, there being nothing added in the meantime to unsettle the proportions. By adopting this plan it is unnecessary to add either bromide or old developer as a restrainer.

In conclusion let me suggest, if any one has a doubt as to its efficacy, try it when again developing instantaneous exposures.—*A paper read before the Photographic Society of Philadelphia by Mr. F. S. Lewis.*

IMPERIAL INSTITUTE OF THE UNITED KINGDOM, THE COLONIES AND INDIA.

Special Exhibition of Photography, in its Applications to the Arts, Sciences and Industries, throughout the Empire, 1895.

COMMITTEE OF ADVICE (*Preliminary List.*)

Representatives of the Imperial Institute: The Right Hon. The Lord Chancellor, G.C.B., Chairman (*ex officio*).

Specially Invited Representatives of Imperial Institute: Dr. Wm. Anderson, F.R.S.; Sir Geo. Birdwood, K.C.I.E., C.S.I., M.D.; Mr. Edward North Buxton; Gen. Sir Chas. Wilson, K.C.B., R.E., and other well-known members of the Institute.

DIVISION 1.—THE HISTORY OF PHOTOGRAPHY.

Sub-Committee of Advice, Mr. Lyonel Clark and others.

Section A.—Illustrations of the results of *early* Processes and of apparatus and materials used in their practice.

Section B.—Illustrations of the progressive development of *modern* Processes.

Section C.—Illustrations of the early processes of Photo-mechanical work, and of materials and implements used in their practice.

Section D.—Photographic Literature, early and modern.

DIVISION 2.—ARTISTIC PHOTOGRAPHY.

Sub-Committee of Advice, Captain W. de W. Abney, and others.

Section A.—A thoroughly representative exhibition of all Schools, embracing known as well as new works.

Section B.—Illustrations of the present condition of Photographic Art in various Colonies and in India. (*To include illustrations of the application of photography as a medium for promoting Colonial Industries and Settlement*).

DIVISION 3.—PHOTOGRAPHY AS AN INDUSTRY.

Sub-Committee of Advice, Captain W. de W. Abney and others.

Section A.—Illustrations of apparatus used in Photography, and of its manufacture; special processes, such as the grinding and polishing of lenses, the production of brass fittings, cameras, etc., being shown in actual operation.

Section B.—The preparation of dry plates, coating of sensitive media, and the various printing processes, shown in actual operation.

Section C.—Reproduction of pictures, plain and in colors. Illustrations of commercial portraiture.

Section D.—Production of portraits, etc., in studios by daylight and artificial light.

DIVISION 4.—PHOTOGRAPHY IN ITS APPLICATIONS TO INDUSTRIES.

Sub-Committee of Advice, Mr. George Davison and others.

Section A.—Processes or reproduction, having photography as their basis, as applied to illustrated journalism, literature, and to purely artistic reproductions; the more common of these processes, to be shown in operation, and details connected with rare processes to be illustrated.

Section B.—Industrial applications of photography to ornamentation, such as Vitreography; and uses of photography in the Decorative Arts.

DIVISION 5.—APPLICATIONS OF PHOTOGRAPHY TO THE SCIENCES.

Sub-Committee of Advice, Captain W. de W. Abney and many others.

Section A.—Orthochromatics: Reproduction of objects in colors, pictures, etc. Results obtained by various stains, screens, etc. Special appliances used in Orthochromatics.

Section B.—Actinometry, Photometry, and Photographic Standards.

Section C.—Optics: The Optical Lantern, including processes and appliances for producing enlargements or reductions. Illustrations of processes for producing lantern positives or transparencies. Apparatus, instruments and appliances connected with the optics of photography. (*Special exhibition of lantern-transparencies as lecture-illustrations*).

Section D.—Stereoscopy: Illustrative examples of stereograms; apparatus and appliances used for producing and exhibiting stereograms.

Section E.—Photomicrography, in its applications to ordinary Micrographical Research, to Pathology, Bacteriology, etc. Apparatus and appliances used in connection with Photomicrography.

Section F.—Spectroscopy: The Spectra of the heavenly bodies, of gases,

metals, etc. Apparatus and appliances used in Spectroscopy.

Section G.—Meteorology and Magnetism: Cloud and Lightning Photographs. Measurements of Heights of Clouds. Illustrations of Photographic Recording Apparatus, and their uses.

Section H.—Astronomy: Photographs of Heavenly Bodies. Photographic Charts of the Heavens. Photographic Astronomical Records. Apparatus, instruments and appliances used in Astronomical Photography.

Section I.—Automatic Recording Apparatus.

Section K.—General: Other applications of Photography to the Sciences, illustrating the results of researches in connection with which Photography has been applied (*e.g.*, Experiments on light and thermography, chemical action of light upon liquids, etc.)

DIVISION 6.—APPLICATION OF PHOTOGRAPHY TO EDUCATIONAL PURPOSES.

Sub-Committee of Advice. Mr. Chapman Jones and others.

DIVISION 7.—MISCELLANEOUS APPLICATIONS OF PHOTOGRAPHY.

Sub-Committee of Advice, Captain W. de W. Abney and others.

Section A.—Illustrations of the applications of Photography to Architecture and Archeology.

Section B.—Applications of Photography to Engineering.

Section C.—Chronography.

Section D.—Applications of Photography to surveying; Cartography, etc. Apparatus and appliances used in Photographic Surveying.

Section E.—Photography as applied to Military and Naval purposes.

Section F.—Applications of Photography to Legal purposes (*e.g.*, detection of forgeries, erasures etc.; production of photo-anthropometric records).

ROSA BONHEUR earned her first money by copying the paintings of old masters, working early and late to help support her family. Her first animal picture was a goat, which pleased her so much that she gave up copying and took up animal painting. Models being too expensive for the slender purse of the young artist, she would tramp miles to a farm, carrying a meagre lunch in her pocket, to sketch an animal. When nineteen years old she sent her first picture to an art exhibition and at once was pronounced a genius.



The above half-tone is a reproduction from a negative taken by Mr. J. S. Hulett, the enterprising photographer of Napanee. The subject died very suddenly some time ago, and her relatives discovered, when too late, that they had no photo of her. In despair, they sought Mr. Hulett, who drove ten miles into the country and took a negative with the above very gratifying result. Mr. Hulett is a "hustler," the word "fail" is not in his vocabulary. He is constantly giving his patrons "something new," thereby keeping up their interest in photographs.

TORONTO CAMERA CLUB FOURTH ANNUAL EXHIBITION.

The '95 exhibition of this club, open to all amateurs, will be held March 5th to 9th, inclusive, at the club rooms and studio, corner of Yonge and Gerrard Streets. Schedule of classes and awards are as follows :

Class A—Landscapes (over 4 x 5). Silver and bronze medal.

Class B—Landscapes (4x5 and under). Silver and bronze medals.

Landscape is a portion of country which the eye can comprehend in a single view, and must show foreground, middle distance, and distance.

Class C—Marine. Silver and bronze medals.

Class D—Architecture. Silver and bronze medals.

Class E—Interior. Silver and bronze medals.

Class F—Portraits. Silver and bronze medals.

Class G—Genre. Silver and bronze medals.

Class H—Enlargements. Silver and bronze medals.

(Enlargements not to be less than two diameters. Print from original negative must accompany same. Work to be entirely that of exhibitor. Two enlargements only to be exhibited).

Class J—Lantern Slides. Silver and bronze medals.

(Each competitor shall exhibit four slides).

Best general exhibit. Gold medal.

(To be awarded to exhibitor scoring the largest number of points. Each silver medal to count 10 points, and each bronze medal five points).

NOTE—In classes C, D, E, F and G any size plate will be allowed.

RULES AND REGULATIONS.

1. Entries, which must be made to the Secretary on the club form to be supplied, will close on 28th February.

2. All pictures must be delivered at the club rooms, ready for hanging, not later than 1st March.

3. All pictures must be properly mounted or framed. No unmounted pictures will be received. If framed, all pictures in the frame must be of the same class.

4. Any process of printing will be allowed.

5. Professional printing will be allowed in all classes except H and J. In the event of a tie between any two pictures, preference will be given to the one which is amateur work throughout.

6. An entrance fee of 25c. in each class is required.

7. Each exhibitor shall place his name, address and class of picture on the back of each frame or mount. No names to appear on the front of any picture until after the awards are made.

8. The exhibition and competition shall be open to all amateurs.

9. Any pictures shown at any previous exhibition of the club are excluded from competition; but may be sent in if marked "For Exhibition Only."

10. All lantern slides must be properly centred, matted and mounted, and a small blank white label placed on the lower left-hand corner.

11. In Class F professional retouching will be permitted.

12. Negatives of all pictures must be produced if required, and no picture shall be allowed to compete in more than one class.

13. Each medal-winning exhibitor shall forthwith, after the close of the exhibition, deliver to the Toronto Camera Club a duplicate print of the medal-winning picture, for the purpose of being hung in the club rooms. This rule not to apply to Classes H and J.

14. The competing pictures will be judged on a system of points as follows :

For originality of subject	-	20
For artistic qualities	-	20
For technical excellence	-	20
		—
		60

15. Judging will be on one picture, except in Class J, which will be on the set of four slides. Exhibitor may send in not more than four pictures in each class, with the exception of Class H.

The judges shall have the power to withhold the awards in any class if they are of the opinion that the work is not of a sufficiently high class to justify the award being made.

ERNEST M. LAKE, Sec'y,
14 King St. West, Toronto.

PHOTOGRAPHY IN RELATION TO ART.

Mr. J. S. Climo of St. John, N.B., in the *Globe* of that city, has the following to say on the above subject :

In the *Cosmopolitan* for December, there is a very readable article on the above subject, but lacking in the most important essential to its completeness—that of artistic lighting. And 'tis curious, too, that in a general way this particular point of proper lighting the subject or object is often lost sight of by some of the most celebrated workers in both painting and photography. To illustrate the article in question there are several examples given in the excellent magazine named. I write, not in the spirit of fault-finding, but in the spirit that if there is anything to learn or suggest to elevate art it should be known; and having for thirty years been a constant searcher and worker in photography, I offer the suggestions in a practical sense. The fac-similes of the photographs exhibited in the magazine are, with two exceptions wrongly lighted. Both sides of the image or face are lit by opposing lights, making what is generally termed a "flat" picture. It matters not what the object—whether an apple, a cannon ball, or the human face—each pertaining to the round form more or less—if so exposed to an all-round light the flatter will the object be, and this is the case with at least three-fourths of the photographs made at the present time, if we take the newspapers and magazine illustrations as examples. To illustrate the principle to the enquiring mind we will take a fruit picture from any good artist. It will be seen that each grape drawn has only one bead of strong light on each separate fruit or berry, and from that point of light all the other lighting on that particular grape is gradually sub-

duced in graduated shading until the deepest shade is reached, thus making the fruit appear to be standing off the canvas in a full and round manner, in fact as if one might pick it off from where it is painted. This is true lighting, and, like the sun in nature, starts its rays from some direct point. But oppose this lighting with another of equal power coming from an opposite direction and there would then be another dot of light striking the fruit on some other part and consequently a flat and false picture would be the outcome. Now in the photographs of the human face, it is the same—the all-round light making the face flat and ill-formed—destroying in fact a truthful delineation by allowing the light to fall on two or three points instead of from one only. Instead of this being the general practice the opposite is the case, as of seven shown in the *Cosmopolitan* only two are correctly or fairly lighted. Some of the finest painters have made the same mistake; they have set up their model or living form before them in some room or place where double or opposing lights have fallen on the object, and they have painted it as they have seen it with the light on several points. The painter, being a skilful master of colors, sometimes neglects the very important point of lighting, and the public not knowing it the picture is lauded as a splendid piece of work. I offer these remarks to all magazines that do much illustrating, for approval or criticism, in the spirit of trying to arrive at a proper knowledge of the subject as the pictures shown by those great educators of the higher intelligence the magazine—if not correctly lighted will not have the proper educative influence they would otherwise possess. In our own city here some recent specimens of fruit painting, by Mr. J. C. Miles, properly

convey all I have said on the above, of correctly lighting all objects pertaining to the oval or round forms. The great energy and strain in competition in all that pertains to present-day life for rapid execution is, no doubt one of the causes of a deterioration in photographic work in New York and all large cities, as in those cities some ten or fifteen years ago much better examples were the rule. These artists were allowed from a quarter to half an hour for sittings, but now seven minutes is the limit in some studios, and this allows no time for the operator to use his brains and his blinds and curtains for correct effect, and so every form of face is taken under one system of light. Hence so many inartistic poses and badly lit faces, for which, of course, the magazines are not to blame, but the photographer who made the original pictures.



The above half-tone is from a negative by Kilburn, Coaticook, Que., and reflects great credit on his artistic skill, as well as the fair maids of Coaticook. Mr. Kilburn is a "country photographer," but gets there just the same. In his younger days he varied the dull monotony of existence by harpooning whales in the Arctic, but always having from early boyhood a passion for art, he took up the profession of photography and threw out his shingle in Coaticook many years ago, where he has always conducted a profitable business. In art, musical and literary cir-

cles, Mr. Kilburn is a well-known contributor, and a visit to him is well repaid.

RAMBLING INCOHERENCIES.

A. H. HOWARD.

No. 9—A FAITHFUL REPORT.

When I heard of the lecture on Japan to be given under the auspices of the Toronto Camera Club by Mr. Otis A. Poole of Yokohama, and that it was to be illustrated by lantern slides, I instantly made up my mind to be there.

It was represented to me that I had spent a good many evenings away from home lately; that if I went anywhere it should be to the Wilson's, who were having a few friends that particular evening; that I was suffering from a nasty cold, and it would be the height of folly to risk the night air; that I had been pledged to fetch Emily home from somewhere over the Don; that I couldn't possibly take any real interest in a lecture on Japan, of all places; that my overcoat was absolutely disgraceful to go into any public place with; that we really could not afford this constant drain for lectures and

theatres, to say nothing of car fares.

The combined weight of these formidable objections might have had effect on an ordinary occasion, but I was bound to take in this particular lecture. I had heard so much about it that for a week past I could think of nothing else. Business was attended to perfunctorily, I lived in a state of feverish impatience, and my usually excellent digestion became seriously impaired. I slept fitfully at night, and repeatedly awoke with a wild dread clutching my heart that something had occurred to postpone the affair indefinitely.

All this anxiety, however, was not so much for my own sake as for that of the PHOTOGRAPHIC JOURNAL. I felt that the very life of the JOURNAL absolutely depended upon obtaining a brilliant and masterly review of Mr. Poole's entertainment. So I determined at all hazards to be there.

On the eventful evening I arrived home from business to find that the domestic routine had been somehow disturbed, and that consequently dinner would be half an hour later than usual.

I mildly protested, pointing out that dinner seemed to be always half an hour later than usual, and hazarded the opinion that this kind of thing was about played out. I also expressed some intention of going and dining in the city, but this proposal was received with such evident signs of disapproval that I judged it expedient, for the sake of others, purely for the sake of others, to reconsider this step.

In course of time I got away, and boarded a car going citywards. On the car I met an acquaintance who was also going to take in the lecture.

"I wouldn't miss this thing for fifty dollars," said he, (whose head was evidently level) "not for fifty dollars I

wouldn't. Why, it's an opportunity that comes once in a lifetime. My wife says, says she, 'Why, Harris,' she says, 'You're surely never going to the city such a night as this,' she says, 'You'll catch your death of cold,' she says. 'Besides,' says she, 'You promised to take me to-night to see Marie Burroughs at the Grand.' If I catch my death of cold,' says I, 'there's enough insurance to see you through all right, but if I take you to see Marie Burroughs *you'll get your death of cold*' I says, 'and I'll be in the soup,' cause you ain't insured.' I had her there, 'but,' I says, 'cold or no cold, I'm bound to scoop this thing in,' I says, 'for it's an opportunity of a lifetime,' I says, 'and so it is.'"

I hadn't been listening very attentively to these last remarks, my attention having been distracted by some observations another man was making to his neighbor.

"Osgoodby's is gone and both sides of Wellington Street is blazing, and I guess it'll go right down to Front. It's a worse one than the other."

"They say there's another fire near the same place," said a girl on my right to a companion, in an awed undertone.

"It must be a pretty big blaze, I tell you," said a tall man who was standing, as he hung on the strap and stooped to look up at the sky through the window. Then everybody peered through the windows, and we saw the sky red with the reflection of a huge fire.

When we arrived upon the scene we mingled with the vast crowd that thronged the streets and gazed with an awe that gradually gave place to a fierce excitement, almost like joy, at the work of devastation that was going forward with such irresistible force.

It was, as the papers afterwards

united in declaring, "a truly magnificent spectacle," and we watched the heroic but ineffectual efforts of the firemen in their unequal struggle with a kind of exultation in the terrible and cumulative power of the "devouring element."

What reeked we that we were wet through to the skin, and that as we pressed hither and thither, our soaked boots made a squeechy noise (for the etymology of that adjective I must refer you to my youngest but one). We were exposed to imminent danger from falling bricks and misdirected hose every three minutes, and were subject to the—really you know—shocking incivility of the police, who, it seemed to us, were lamentably wanting in that kindly courtesy and repose of manner which we had a right to expect.

All this was naught. We were exalted—enthralled—by the grandeur of the scene before us, and when at length King Winter came to the firemen's aid, and put an end to the conflagration, we felt as if we were defrauded—as if we might reasonably demand our money back at the box office. When the last tongue of flame had been extinguished and the enemy had retired behind the blackened ruins to smoulder in sullen and impotent rage over its defeat, we sloshed through the sodden streets in search of a car home. After waiting vainly for three-quarters of an hour, we made up our minds to walk it—to Parkdale. We arrived in course of time, and as my companion bade me "good night" he said:

"Well, sir, that was a grand sight, I tell you. I wouldn't have missed it for fifty dollars. It was an opportunity of a lifetime!"

* * * * *

What's that? How about the lecture? Oh, well, a fellow told me it

was no good. He'd been to Japan himself, and said he:

"It was a very good lecture and all that, and the views were fine, I admit, but pshaw! why he never took us more than two miles out of Yokohama." When I asked him "Why should he?" he replied, as if to settle the question now and forever, "Why, pshaw!"

My folks asked me about it. I said I was too far off to see the views distinctly, and that I had failed to catch the point of most of the anecdotes. When asked if there was a good house, I replied that I didn't think there was what they would call a good house, owing probably to the weather—and, maybe the fire.

THE SOLIO TOURISTS CONVENTION.

The Eastman Kodak Co. never does things by halves. Neither does it wait for others to set an example. It is always getting the start of other people and giving the photographic public an agreeable surprise, usually in the line of something new in photographic goods or processes. Its latest innovation, however, is along an entirely different line.

It takes a big concern to have travelling men enough to hold a convention all of their own, but that's what the Eastman Kodak Co. demonstrators were doing when the New Year came in. The Solio tourists to the number of thirty-three gathered at the Hollenden in Cleveland, on Dec. 31st, and for two days were engaged in holding business sessions. All of the printing-out papers were discussed and compared with Solio. Everybody was supposed to relate an experience that would be of benefit to the brother demonstrators and all told of their successes and failures. The relative qualities of gelatine

and collodion papers, the combined and separate baths were freely discussed, and how best to approach the photographers was a subject that had careful consideration.

On another page we give a half-tone reproduction from a photograph by Decker, which shows what a determined and enterprising looking lot of men the Eastman demonstrators are. These wide awake fellows cover the country from Maine to California in the interests of Solio, and since the convention every one of them is loaded to the muzzle with arguments in favor of this popular paper, and with their big supply of ammunition they will make the campaign of 1895 a lively one. We understand that the Eastman people will soon have an able corps of western collodion men out, who will demonstrate the excellencies of the new paper to those who prefer collodion to gelatine.

New Year's evening the demonstrators sat down to a banquet at the Hollenden, which had been liberally provided by the Eastman Kodak Co., and with them at the festive board were Mr. H. M. Fowler and Mr. H. H. Slater, the well-known Cleveland stock dealers. A convention without a yell would not be a success, and when with one accord the thirty-four voices that know so well how to sing the praises of Solio gave forth :

Ko-dak-Ko-dak-So-li-o,

Mo-ra-Rah-Rah-East-man-Co.

Rip! Tear!! Splash!!! The echoes nearly wore the kalsomine off the ceiling. Everybody had a rare good time, and enjoyed the relaxation after the two days of solid business sessions. Mr. S. H. Mora presided and felicitously proposed the toasts, which were responded to as follows: "Solio," H. M. Fowler; "Our Competitors," P. E. True; "Demonstrators," W. C. Mar-

shall, H. Robertson; "The Heavenly Twins," C. H. Fairbanks; "Our Advertising Department," L. B. Jones; "Eastman Kodak Co.," F. S. Crowell; "The Trade," H. H. Slater; "The Cheerful Exaggerator," J. H. Hurst; "The Printer," C. A. Matthews; "The Reception Room," J. B. Guthrie.

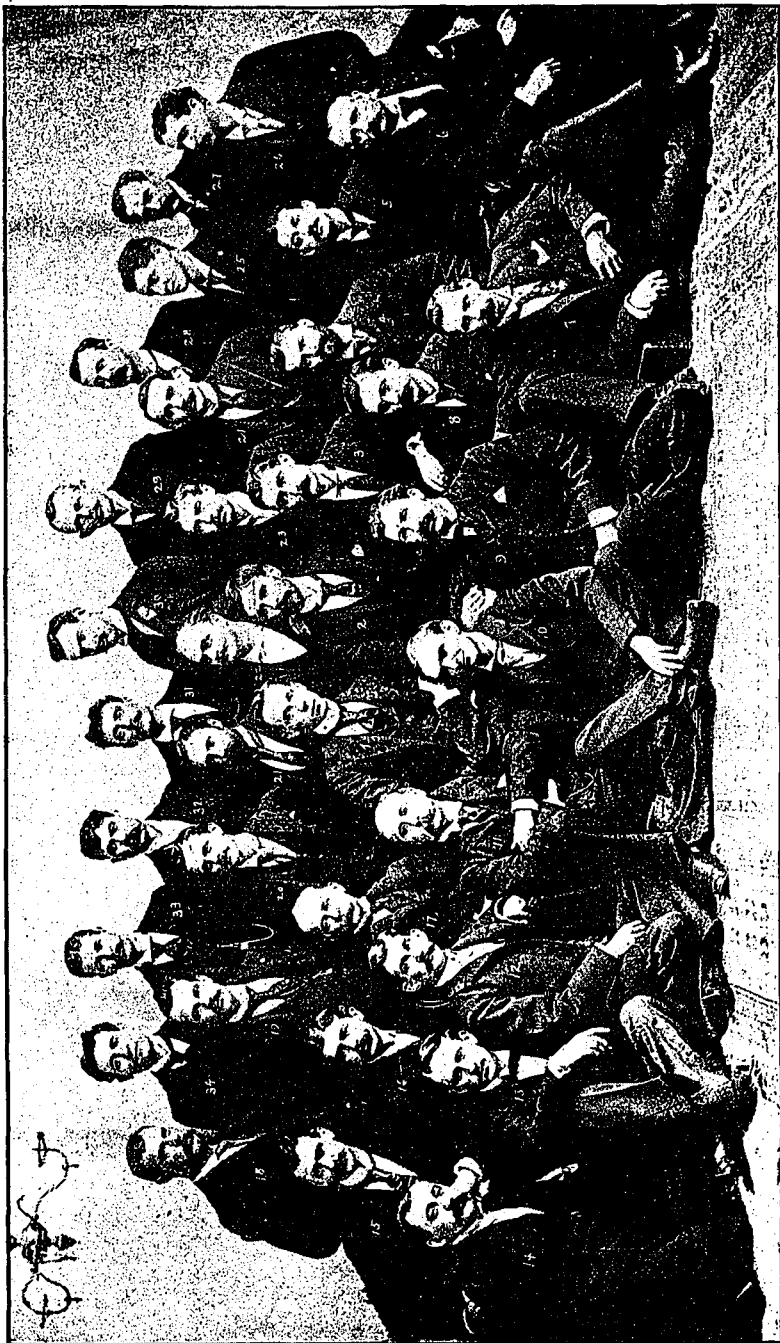
Early on the following morning the demonstrators left for the north, the south, the east and the west, determined to make Solio beat all records in '95, including its own, so that when '96 comes in, the Eastman Kodak Co. can still honestly claim "Solio sales have doubled in the past year."

THE CAMERA IN THE MISSIONARY FIELD.

THE NORTH-WEST.

BY REV. P. L. SPENCER.

The tourist who wishes to see the various processes of civilization as they are carried on among the copper-colored people of Canada should, on his way to the great North-West, break his journey at the Sault Ste. Marie, and inspect the institutions erected several years ago by Rev. E. F. Wilson, and commonly known as the Shingwauk and Wawanosh Homes. Here the camerist will find more than one object worthy of his lens. The educational buildings, the Bishop Fauquier memorial chapel, the hospital, and the groups of neatly-dressed and bright-eyed scholars give evidence of the ability and sagacity of the founder of the mission and of the success which is attending the work of the present staff of teachers. The complete history of the enterprise must include the biography of several scholars who are to-day occupying useful and responsible positions in the country. The "big teaching wigwam" asked for



THE SOLIO DEMONSTRATORS.

- | | | |
|---|---------------------|--------------------|
| 1—S. H. Mora, <i>Mgr., Spitz, Dept.</i> | 15—L. W. Humphreys, | 29—L. H. Parmelee, |
| 2—L. B. Jones, <i>Adm. Mgr.</i> | 16—W. F. Allen, | 30—L. B. Guthrie, |
| 3—W. C. Marshall. | 17—F. S. Crowell, | 31—E. P. Busnell, |
| 4—C. A. Matthews. | 18—F. W. Godfrey, | 32—E. B. Campbell, |
| 5—J. H. Hurst. | 19—C. H. Daws, | 33—E. Hill, |
| 6—H. W. Kelly. | 20—C. H. Chase, Jr. | 34—H. E. Smith, |
| 7—C. L. Bowden. | 21—W. H. Snider, | |
| | 22—W. P. Gerhardt, | |
| | 23—A. C. Brace, | |
| | 24—F. B. Thompson, | |
| | 25—W. H. Norton, | |
| | 26—W. H. Beardman, | |
| | 27—C. F. Lee, | |
| | 28—J. A. Campbell, | |

by Chief Augustine Shingwauk, of Garden River, in 1871, and by Chief Buhkwujjenone, the travelling companion of Rev. E. F. Wilson in England, in 1872, has a story full of interest for the artist as well as the philanthropist.

At Port Arthur and Fort William one sees two rival towns situated at the head of Canadian lake navigation, and destined to become in time united and thus to form an important city. The C.P.R. steamers and other vessels regularly plying between the Kaministiquia river, which here finds an outlet, and the ports on the lower lakes and the St. Lawrence, make business and work for thousands; and when in harbor these huge boats make up an extremely pleasing picture. The fur house of the old Hudson Bay Company's station is still standing at Fort William, a relic of the early days of trapping and trading. It is no longer used as a storehouse for pelts, but is given up to the accommodation of a powerful stationary steam engine, the use of which is to transfer cargoes of coal through deck to dock. A hundred years have wrought wonders here. The red man is now almost as great a curiosity as was the white man once. Railway tracks have been substituted for the early paths and trails. The wigwam has given place to the well-built store or comfortable dwelling. The whoop of the warrior is outdone by the whistle of the locomotive engine. Only the strongest and most valued part of the trading fort remains as a witness to the former existence of an Indian population, against which the few white men on business bent deemed it necessary to guard themselves and their purchased possessions.

Before reaching Winnipeg we passed through a region that affords more interest to the surveyor or civil engineer than to the photographer. The diffi-

culties that confronted the builders of the C. P. R. in these parts were exceeded only by those that afterwards opposed their progress in the mountains. Occasionally a waterfall of brightness and beauty greets the eye, or one of nature's diminutive parks "in verdure clad" arrests the attention; but generally the scenery is anything but attractive, and the traveller must depend upon his own resources or the pleasant converse of his fellow-travellers for means with which to relieve the monotony of the journey. Whether in an ordinary first-class coach or in a so-called "colonist" car, one soon becomes acquainted with the other passengers, and the feeling that springs up is akin to that which exists between fellow-voyagers on the ocean. This part of the trip takes us through some of the twenty-two tunnels that exist between Montreal and Vancouver, and the sudden and frequent darkening of the car gives rise to youthful wonder and mirth. Perhaps one of the passengers proves more than ordinarily loquacious; and, if he be an Irishman, he is sure to keep the rest in good humor. I remember one of the sons of Erin who, not content with his usual salutation "Your Reverence," became so enthusiastic in his greetings that he at length rose to the climax of "Your Holiness."

Having arrived in Winnipeg and spent an hour or two in viewing and taking the principal buildings of this truly wonderful prairie city—wonderful for rapidity of growth and excellence of architecture, the camerist turns his lens towards the portal of what was once Upper Fort Garry. The huge wooden gate or door, and the enclosing stone arch are all that the old Hudson Bay Company's depot now possesses, and even this interesting relic is in

danger of falling to pieces. The preservation of the portal, now almost 60 years old, might well engage the attention of the Winnipeg Historical Society. Of equal age and of greater interest, is St. John's Cathedral, to the erection of which edifice Indian labor and generosity contributed not a little. In 1844 Bishop Mountain, third occupant of the See of Quebec, paid a visit to Fort Garry and held service in St. John's Church. The French-Canadian crew whom he engaged to "paddle their own canoe" and convey him from the St. Lawrence to the Red River occupied 38 days in the trip. Now one traverses the same distance in a little more than as many hours.

On my second tour through the prairie country I went 25 miles north of Winnipeg in order to see the results of missionary effort among the Indians belonging to St. Peter's Reserve. Taking in St. Paul's Indian Industrial School, near Middlechurch, on the way, I was more than pleased with the work going on under the guidance of Rev. Wm. Burman. The dusky occupants of the carpenter building, the blacksmith shop, the printing office and the study rooms, showed surprising intelligence and skill. Some flash light views taken on this occasion proved valuable additions to my stock of negatives. St. Peter's Reserve afforded a still more satisfactory proof of the success of missions. Here I found a thousand Indians living as happily, decently, and almost as comfortably as would live a thousand white people under similar circumstances. All have been Christianized with the exception of a dozen; and of the large number of converts all but fifty or sixty are members of the Church of England. The reserve extends along the Red River on both banks for a distance of eight miles.

St. Peter's Church, the principal ecclesiastical building, was erected about the year 1847. The congregation is large and able to understand an English service, although preferring the hymns in Cree. The communicants numbered eighty on the Sunday on which I was privileged to preach. Before leaving the reserve I increased my collection of views by taking the church with a fine stately elm tree in the foreground, and the ferry scow that plies on the river, an Indian chief in his home-made sail boat, as he glided down the stream towards Lake Winnipeg, an Indian family's log house, and a panorama of church, parsonage, etc., as seen from the opposite bank of the broad current. These converted into lantern slides proved of great value and usefulness when in the following autumn I endeavored to explain to people in England the nature of missionary work in Canada. The story of the triumph of truth was by means of them forcibly and interestingly illustrated.

(To be Continued).

CONVENTION PICTURES IN MONTREAL.

Messrs. F. A. Mulholland & Co., our enterprising Toronto stock dealers, held a photographic convention of their own recently in Montreal. Knowing that a large number of our Montreal and Lower Province photographers were unable to attend the late Toronto convention, they determined to give them a chance of seeing at least a large portion of the elegant and instructive convention exhibits. To accomplish this very praiseworthy end, Mr. Fred Mulholland, assisted by Mr. George Pritty, of the American Aristo Co., secured the exhibit of the American Aristo Co. and many of the choicest pictures of the Cramer plate exhibit,

took them to Montreal, and securing commodious apartments, exhibited them, together with a display of "everything new under the sun" in the photographic world, free of charge for an entire week to all who were enterprising enough to take advantage of their commendable enterprise. The *Montreal Herald* devotes nearly a column to a description of the exhibition, believing it to be a valuable educative medium for their photographers. Any one who has seen the beautiful work accompanied by the use of the products of the American Artisto Co. and the G. Cramer Dry Plate Co., as shown by these pictures, can easily believe that many new converts were made for both paper and plates.

Mr. Mulholland certainly deserves the thanks at least of the photographers of Montreal and the East for providing them the opportunity of seeing and studying this valuable collection of artistic work.

BRAGG—I am a self-made man, sir. I began life as a barefoot boy.

JENKS—Indeed! Well, I wasn't born with shoes on either.

LETTERS TO THE EDITOR.

The Editor CANADIAN PHOTO. JOURNAL.

SIR,—You have a communication from Macfarlane Anderson, who calls himself the "simple Scotchman," on "phusochum" (whatever that is) color process. This same gentleman also publishes a book on photo-engraving, and advertises to sell half-tone enamel solution. It would be interesting to know if this gentleman is really a practical man of note or only theoretical. Having seen nearly all the photographic journals that are published in the English language I have failed to see any

of his work in half-tone or color. Why does he not send a sample plate of his work to your JOURNAL, for I am sure you would print it with pleasure? He may have something wonderful in his color process, but until results are shown there is a doubt. How is it that he did not show samples of his work at the exhibition of photo-mechanical work in New York?

In the *American Journal of Photography* this gentleman puts an advt.—called "Stopping a Leak"—to sell a \$50 process for \$5. That is to sell enamel process solution with instructions for \$5, and afterwards to sell the solution as required at \$2.50 a quart, when you can buy the solution for \$1.25 a quart and a working formulæ has already been published in the PHOTO. JOURNAL. It may not be the same as Mr. Anderson's, but (till I see some of Mr. A.'s work) it is a satisfactory one, so the leak would be in the pocket of the person who bought the process, and Mr. A.'s pocket would be surely stopping the leak.

In *Photography* Mr. Anderson speaks in praise of the swelled gelatine process. He says a firm there made from the negative to a cast in metal ready for the press, a plate in forty-five minutes. Now, as an old worker on this process, which I long ago discarded in favor of the washout (or Leintype) process, I doubt that such can be done. I think the job was got out by the chalk-plate process, and the firm who did it were trying to gull the simple Scotchman. However, I could tell if Mr. A. could send a copy of a paper which illustrates by such methods. He says none of the men in Paris, London and the Colonies give a clue how a half-tone plate can be etched deep enough in one bite. If it is the clue he requires to put in his book I will sell it to him, for I can do

any half-tone plate in one bite, but the artistic results are not as good as where two or three bitings are given a plate, a fact which every practical photo-engraver knows.

Yours truly,

THOS. W. ELLIOTT.

The Editor CANADIAN PHOTO. JOURNAL.

DEAR SIR,—In case the subject referred to by it is one, in your judgment, proper to be mentioned as a news item in the local columns of THE CANADIAN PHOTOGRAPHIC JOURNAL, I am directed to enclose, for your information, copy of the prospectus received by His Honor the Lieutenant-Governor from His Royal Highness the President and the Executive Council of the Imperial Institute, London, England, relative to a special Exhibition of Photography in its applications to the Arts, Sciences and Industries throughout the Empire, to be held at the Imperial Institute in 1895. In his covering-letter, Sir Frederick Abel, the Secretary observes that one of the special features is intended to be the illustration of the development of the Photographic Art in the Colonies, and that he has been requested to secure the co-operation of the authorities of this Province in rendering this section of the exhibition thoroughly representative, and, further, that it will be very desirable for him to receive early information regarding "illustrations or other objects" which are likely to be contributed from this Province.

Yours truly,

G. E. LUMSDEN.

TORONTO, Ont.

It is rumored, says a United States correspondent, that professionals are returning to pyro and albumenized paper, as they can get more uniform results therewith.

COMBINED TONING AND FIXING BATHS.

BY H. J. L. J. MASSE.

Much has been said, and no doubt will be said, about the merits and the demerits of the combined toning and fixing bath for chloride of silver emulsion papers. In looking through the album of a postal photographic club the other day it was amusing to see criticisms of this kind: "How can Mr. A. expect anything else when he persists in using the combined bath?" "Is this print toned with Gregory's powder?" "I suppose the bilious color is the inevitable result of using the combined bath." Quite a study in rhubarb and magnesia," and so on *ad nauseam*.

Without going into the chemical side of the question at all, and the discussion of the causes of sulphur toning, it may be said that the first requisite in a successful combined bath is simplicity. The old advice, "Do not make a sink of your developer," applies just as much to the combined bath. Some of the formulæ are, if not "sinks," at any rate complicated in their composition, and slightly bewildering to the user, especially if he act, as an intelligent photographer—junior or otherwise—should do, as his own dispenser.

Out of the many formulæ from which choice can be made, the single solutions are the least to be recommended, unless a batch of prints is required to be toned and fixed. If one of these single solution baths be used a couple of times and not carefully put away in the dark, there is always the chance of the gold being precipitated and the bath then becomes fit only for the residue tub. The formulæ for these single solutions are here given:

Hyposulphite of soda	4 ozs.
Sulphocyanide of ammonium	½ oz.

Lead acetate.....	1 drm.
Lead nitrate	1 "
Alum	1 "
Citric acid	1 "
Chloride of gold (1 grain in 1 dram).....	4 drms.
Distilled water	20 ozs.

This is turbid when first mixed, but settles after standing for 24 hours, and is then ready for use.

The other formula is a variation of the above, but gives excellent tones:

Distilled water	20 ozs.
Hyposulphite soda	4½ "
Citric acid	1 drm.
Acetate lead	1½ "
Sulphocyanide of ammonium.....	3½ "
Alum, powdered	1 "
Sol. chlor. gold (gr. to dr.)	1 oz.
Half sheet of unfixed scraps of Aristotype paper.	

When made this solution turns into a milk-like turbid liquid, which will settle in three or four days, after which time it is ready for use, and can be used over and over again until exhausted.

Do not wash the prints before toning. When they are put into the bath, they at first will turn a brown color, and after five minutes the fixing will be finished, and the toning commence; the whole operation takes from six to eight minutes. The temperature of the bath should be about 60° Fahrenheit.

These solutions should be kept in a dark cupboard.

In another well-known formula the bath is composed of two solutions which are finally mixed, and which will keep for a long time. Dissolve:

Water.....	24 ozs.
Hyposulphite of soda.....	6 "
Sulphocyanide of ammonium.....	1 oz.
Acetate of soda.....	1½ "
Saturated solution of alum.....	2 ozs.

Fill the bottle containing this solution with scraps of sensitized paper, bad prints that are not fixed, and leave it for a day. Then filter and add the following solution:—

Water.....	6 ozs.
Chloride of gold	15 grs.
Chloride of ammonium	30 "

It is necessary to print deep enough

and to leave the prints in the bath till, in looking through them, the desired color—brown, dark or bluish—is observed.

The combined bath in two or more stock solutions is preferable in my opinion, and has been used by me from the first appearance of gelatino-chloride papers of English manufacture. The Eastman Manufacturing Co. have recommended such baths from the first, and though the formulæ have been modified and revised from time to time the original bath gives excellent results. Its composition is as follows:

No. 1.

Hyposulphite of soda.....	20 ozs.
Alum potash	5 "
Potassium sulphate	2 "
Sodium sulphate (Glauber's salt).....	10 "
Water.....	160 "

First dissolve the hypo and the alum in the water and then add the potassium and sodium sulphates. Allow to stand for two or three hours before using.

No. 2.

Gold chloride.....	15 grs.
Acetate of lead	64 grs.
Water.....	8 ozs.

For use, take of No. 1 eight ounces, and of No. 2 one ounce. No. 2 solution should be well shaken before being added to No. 1. The prints should be immersed in this toning bath without previous washing. The depth of tone is judged by reflected light when using the combined toning and fixing bath.

Another form is published by the Paget Prize Plate Company and is here given. It is apparently a modification of that just given in that the potassium sulphate is omitted, and the Glauber's salt increased to 14 ounces. No. 2 solution remains unchanged. This formula is recommended for the Paget Prize Print-Out Opals:

No. 1.

Hyposulphite of soda.....	20 ozs.
Alum (potash alum only)	5 "
Sodium sulphate (not sulphite).....	14 "
Water to	1 gal.

Dissolve the hypo. and alum each in about a quart of hot water, mix and then add sodium sulphate already dissolved, making up to one gallon with remainder of water. This mixture should then be left for some hours for the precipitate to settle, when the clear solution may be poured off or filtered and is then ready for use. It will keep indefinitely.

No. 2.

Gold chloride.....15 grs.
Acetate of lead.....64 "
Water (distilled).....8 ozs.

Dissolve the acetate of lead in the water and add the gold. A heavy precipitate forms in this solution, which should be shaken up when any is to be poured out; it re-dissolves when added to No. 1 stock solution. For use: Mix eight ounces of No. 1 with one ounce of No. 2. When this bath is used the plates should *not* be washed *before* toning. Another formula of the Eastman Co. was simpler.

No. 1.

Hypo.....8 ozs.
Alum.....6 "
Water.....64 "

When dissolved add to the above three ounces carbonate of soda dissolved in eight ounces water. This must be done very carefully on account of the effervescence which takes place. Allow to stand for 24 hours and then decant the clear liquid.

No. 2 as given on opposite page.

A later one was:—

No. 1.

Sodium hyposulphite.....6 ozs.
Alum (potash alum).....1½ "
Sodium sulphate (Glauber's salt).....4 "
Water (distilled water is preferable).....4 "
Make up to.....60 "

First dissolve the sodium hyposulphite and alum in the water, then add the sodium sulphate.

No. 2.

Gold chloride.....15 grains
Lead acetate (sugar of lead).....50 "
Water (distilled water is preferable).....7½ "

Note.—An orange precipitate is formed

in No. 2 solution, which, however, re-dissolves on its being added to the No. 1 solution.

Place the prints without previous washing in the following:—

Toning and Fixing Bath.

Take of Solution No. 1.....8 ozs.
Solution No. 2.....1 oz.

Allow the mixture to stand 15 minutes at least before using, until the orange precipitate has dissolved.

The above bath must be cold. The temperature being kept as even as possible at about 50° Fahr.

Precipitation.—It will be found that in all mixed alum and hypo solutions a slight precipitate is formed; this does not, however, affect the result.

This gives excellent warm tones, chiefly a warm purple; but, of course, the resulting tone depends mainly on the original negative, the developer used, the light during printing, and possibly the amount of moisture in the paper at the time of printing.

The latest to my knowledge is the following, which as yet I have not been able to try. The tones obtained by its use, however, are all one could wish:

Stock Solution A.

Sodium hyposulphite.....8 ozs.
Alum (potash).....6 "
Water.....80 "

When dissolved add

Borax 2 ozs. dissolved in hot water 8 ozs.

Let stand over-night and decant clear liquid.

Stock Solution B.

Gold chloride.....15 grains
Lead acetate (sugar of lead).....64 "
Water.....8 ozs.

Solution B should be shaken up before using and not filtered.

For use take—

Stock Solution A.....8 parts
Stock Solution B.....1 part

Place prints without previous washing in the above.

The combined bath must be cold, not above 40° or 50° Fahr. This condition can be obtained by placing a piece of

ice in the bath when toning. If your bath is too warm you will get yellow prints with a greenish cast in the half-tones.

Use a thermometer and keep it in your toning bath all the time.

Tone to desired color and immerse prints for five minutes in the following salt solution to stop the toning:

Salt..... 1 oz.
Water..... 32 ozs.

If the prints tone in less than 15 minutes, it is desirable that the following extra fixing bath be used to ensure thorough fixing:

After the salt bath give one change of cold water and fix for ten minutes in

Extra Fixing Bath.

Sodium hyposulphite..... 1 oz.
Sodium sulphite (crystals)..... 60 grs.
Borax..... ½ oz.
Water..... 20 ozs.

Wash one hour in running cold water, or in 16 changes of cold water, when prints may be mounted same as albumen prints.

Examining Prints while Toning.—Tone to the color desired in finished prints. Great care must be taken not to tone too many prints with the same bath. Nine ounces of the mixed toning bath made as per formula on preceding page will tone one sheet of paper of the standard size, 17x24½ inches, or one 1s. packet, and more should not be toned.

This combined bath is, of course, an *acid* bath, and any attempt to neutralize it will precipitate the alum.

Where a *neutral* combined bath is preferred to an *acid* one, the Eastman Co. recommend the following new formula, giving tones varying from red to dark brown:

Stock Solutions.

No. 1.—Sodium hyposulphite 24 ounces, dissolved in water and made up to 80 ounces.

No. 2.—Ammonium sulphocyanide 1 ounce, dissolved in water and made up to 10 ounces.

No. 3.—Lead acetate ½ ounce, dissolved in water and made up to 10 ounces.

No. 4.—Gold chloride 15 grains, dissolved in 10 ounces of water.

Use distilled water if possible. Any sediment should be filtered out.

Take of No. 1, 7 ounces; No. 2, 1 ounce; No. 3, 1 ounce; No. 4, 1 ounce. Mix in the order named. Allow to stand ¼ hour. Cool to about 50° Fahr.

Printing should be carried decidedly darker than the finished picture should appear.

To tone proceed as follows:

Wash the prints well for a few minutes, after which place them in a solution of

Common Salt..... 2 ozs.
Water..... 20 "

keeping them moving for five minutes.

Wash thoroughly, and tone and fix in the above combined bath, at about 50°; next wash the prints for ten minutes in running water, and then place in the following

Alum Bath.

Potash alum..... ½ oz.
Water..... 20 ozs.

Finally, wash in running water for about an hour.

Note.—The above quantity will tone a 1s. packet of paper.

Another excellent formula for combined toning and fixing in two solutions is as follows:—

No. 1 Solution.

Hyposulphite of soda..... 7 ozs.
Sulphocyanide of ammonium 5 drms.
Acetate of lead..... 2½ "
Water..... 25 ozs.

No. 2 Solution.

Alum..... 80 grs.
Citric acid..... 80 "
Nitrate of lead..... 2½ drms.
Water..... 11 ozs.

Mix No. 1 and 2 together, put in about ¼ sheet of sensitized paper cuttings, and let it stand for 24 hours, then filter and add slowly ½ ounce of 1 per cent. gold solution (one 15 grain tube of gold in 3½ ounces of water).

The above quantity of toning bath

will tone about 20 to 24 sheets of paper, but after 10 to 12 sheets, $3\frac{1}{2}$ ounces hypo, in 7 ounces of water, must be added.

The prints should be placed direct into this bath without washing. After toning and fixing, wash in running water for half an hour.

A still simpler formula which I now prefer to all others is here given. It was given by the Rev. J. Carter Brown in the *British Journal Almanac* for 1893, page 617:—

No. 1, or H.

Hypo	2½ ozs.
Alum	2 "
Soda bicarbonate.....	1 drm.
Water	20 ozs.

No. 2, or G.

Acetate of lead	16 grs.
Chloride of gold.....	2 "
Water	2 ozs.

He says: "To tone 12 sheets of half-plate size add one ounce of G to twenty ounces of H just before toning. The pictures require no preliminary washing . . . and they will scarcely over-tone."

This is a modification of one of the Eastman formula already given. Both the solutions keep perfectly and the bath is economical and convenient.

To sum up my experience as to combined toning and fixing baths the following rules should be observed:

Keep the paper dry and place in position in the printing-frames in subdued light. If this be neglected pink tones may be the result.

Print deep enough. Do not be misled by the prettiness of the untuned print. An under-printed print will give unpleasant tones.

Keep the prints in a dry air-tight place till the time comes for toning.

Tone in subdued light. Gas or lamp light are to be preferred to daylight if at all strong.

Keep the prints moving in the toning bath. If uneven patches or streaks

are observed in the prints they are caused by the prints sticking to one another in the bath. Do not think that you can secure good results if you leave the prints to take care of themselves.

Keep all dishes scrupulously clean. Hypo will cause red stains on the prints. If you suffer from moist (too moist) fingers in summer, be careful how you handle the prints or stains will appear.

If toning takes place too quickly, treat the prints to a supplementary fixing bath.

Do not attempt to tone with an exhausted bath. Follow the papermakers' instructions, and do not attempt to revive the bath by adding gold haphazard. It is better to mix a fresh bath.

Let the washing be done well and quickly. This is preferable to long and slow washing.

Frequent changes from one vessel to another often answer better than an expensive washing apparatus, as the latter, by taking the prints round too fast, crease them up and wear holes at the corner of the crease or fold.

Keep the temperature of the bath about temperate, *i.e.*, 55° Fahr. Sometimes 50° is recommended, sometimes 60°. Gelatino-chloride papers will stand up to about 68° or 70°. After that the emulsion begins to leave the paper.

If these conditions be observed the appearance of the prints seems all that can be desired, and their degree of permanence, in spite of severe tests, quite satisfactory.—*Practical Photographer.*

ENCOURAGING WORDS.

The Editor CANADIAN PHOTO. JOURNAL.

SIR,—I must congratulate you heartily on the Emergency Number just received. The "Phoenix" heading is very appropriate and

the entire get up of the issue reflects great credit on the management and the printer. I wish you every success during the coming year and will do all in my power to help the JOURNAL along.

Yours truly,

Ottawa.

G. E. VALLEAU.

THE January number of the CANADIAN PHOTOGRAPHIC JOURNAL is more than creditable to the publishers. Everything connected with the JOURNAL was destroyed in the recent big Toronto fire—except, evidently, its spirit of enterprise. The exultant phoenix on its cover is warranted, for the magazine for January has all the accustomed attractions and some extra ones. In our first issue after the fire, we expressed the hope that the JOURNAL would not only survive the disaster, but prosper as before; and we are pleased at the evidence of its vitality and prosperity, for it is an exceedingly well-edited and helpful publication. We commend it to amateurs.—*Buffalo Express*.

SCARCELY two weeks have passed since the December issue of the CANADIAN PHOTOGRAPHIC JOURNAL, with its one side printed and the other yet on the press, was doomed to burn in the first of the great Toronto fires. But through the courageous effort of its editor and publisher, Mr. Geo. W. Gilson, the JOURNAL is able once more to make its bow to the public in an entirely new dress, with a cover specially designed by Howard for the "Emergency Number," and with a front page inset consisting of photograph on Aristo-Platino paper, from the studio of Frank A. Place, Chicago. There is a large field and should be a happy future for this journal, for neither professional nor amateur who once gets it is likely to do without it.—*Monetary Times*, Toronto.

THE December issue of the CANADIAN PHOTOGRAPHIC JOURNAL was destroyed in the big fire in Toronto. With characteristic energy our good friend Gilson started on his January issue, and has made it particularly attractive. One of the features of this number was an Aristo-Platino print from the gallery of Frank A. Place, of Chicago—*Anthony's Photographic Bulletin*, New York.

The Editor CANADIAN PHOTO. JOURNAL.

SIR,—I am most sincerely sorry to hear of your loss and allow me to say so. I see, however, with pleasure, there are some things not burnt out by the fire, — your energy and ambition to quickly reinstate the JOURNAL,—and I

have no doubt this phoenix arisen from this fire, will surpass the other in its higher flight.

Yours very truly,

Kenwood, N. J.

H. K. NOYES.

The Editor CANADIAN PHOTO. JOURNAL.

SIR,—Accept kindest and heartfelt sympathy in your great loss. Hoping to again see JOURNAL issued as usual for January.

Respectfully,

Woodstock, Ont.

G. W. DICK.

The Editor CANADIAN PHOTO JOURNAL.

SIR,—The January number of your admirable JOURNAL received. You are certainly deserving of the highest praise for your promptness in rising, "Phoenix-like," from the flames. This number is certainly very fine for one gotten up on such short notice.

Yours very truly,

Phelps, N.Y.

H. B. HIBBARD.

. . . . We appreciate the value of your JOURNAL as an advertising medium and your good will to us, and will renew our contract for advertising space with you for 1895. With best wishes for your future success and assuring you of our hearty friendship and cooperation.

Yours very truly,

G. CRAMER DRY PLATE WORKS

St. Louis.

BOOKS AND PICTURES RECEIVED.

WE have received copies of the two new editions of the "Photogram," The Photogram De Luxe and the Process Photogram, the first printed throughout on heavy plate paper, the second, an edition of this journal devoted more particularly to process work than the regular edition.

FROM A. L. Murray, of Brockville, we have received the handsome and richly illustrated program of the Brockville Amateur Minstrels, an organization of more than usual talent, that gives each year a performance that is socially and artistically one of the events of the season. The illustrations are all from negatives by Mr. Murray.

THE *Photographic Review of Reviews* with the January issue commences its fourth year. Several alterations have been made, notably the arrangement of literary matter under "subject" as distinct from "source," and printing the illustrations in a different color to the matter. It is one of our most interesting exchanges.

ALBERT LYNCH, the famous French artist, who received the highest Salon prize for his panel of "Spring," has been engaged by *The Ladies' Home Journal* to draw a series of designs for the cover of that magazine, which, as the reading public knows, changes its cover design each month. Lynch is, perhaps, one of the best-paid artists in France, and these covers will cost *The Ladies' Home Journal* nearly \$1000 apiece. But this only demonstrates the enormous expense to which magazines are put in the production of their numbers.—R. H. STODDARD, in *New York Mail and Express*.

"THE DARK ROOM AND ITS EQUIPMENT," by H. J. L. J. Masse; published by Percy Lund & Co., London. English price 6d. This is No. 2 of the Junior Photographer Series, and is a thoroughly practical description of the fitting up of the developing room. It will be found especially valuable to those who desire to have a perfect dark room without the expenditure of much cash. It is printed in the attractive style adapted for this series by the publishers, and can be obtained from your dealer, or will be sent by us *free* for each new subscriber. This also applies to No. 1 of this series, "Snap Shot Photography," previously reviewed by us.

GENERAL LORD WOLSELEY makes a most important contribution to the literature of the China-Japan war. In an article for the February *Cosmopolitan*, he discusses the situation and does not mince matters in saying what China must do in this emergency. Two other noted foreign authors contribute interesting articles to this number. Rosita Mauri, the famous Parisian danseuse, gives the history of the ballet, and Emile Ollivier tells the story of the fall of Louis Philippe. From every part of the world, drawings and photographs have been obtained of the instruments used to torture poor humanity, and appear as illustrations for a clever article, by Julian Hawthorne, entitled, "Salvation via the Rack." Mrs. Reginald de Koven, Anatole France, W. Clark Russell, Albion W. Tourgee, and William Dean Howells are among the story tellers for the February number of *The Cosmopolitan*.

NOTICE BOARD.

BAUSCH & LOMB's new announcement this month deserves your attention. The goods of this firm are "way up" in quality.

A BAR of Packer's Tar Soap has been found a necessary accessory by many of our photographers. For use after developing or toning it is most beneficial.

THE optical works of C. P. Goerz Schoenberg near Berlin, the maker of the Double Anastigmates, have just finished the 20,000th photographic lens made in this workshop.

WE EXPECT to see a big demand for the new Gundlach shutter this spring. It has all the good points of high-priced shutters, and sells at a medium price. It is very compact and not liable to get out of order.

GOOD OLD "N. Y." holds its own exceedingly well, not seeming to be at all disturbed by the flurry in printing papers now on in Canada. It is an honest paper and the "culls" are few in the galleries using it.

ISOCROMATIC PLATES are becoming more of a necessity in commercial work every day. We hear that the G. Cramer Dry Plate Works have a catalogue under way that will deal exclusively with Isochromatic plates as adapted to commercial work.

MR. J. SAVANNAH, one of the good photographers of Victoria, B.C., has developed into a married man, having married Miss Maude Middleton. Mr. and Mrs. Savannah have THE JOURNAL'S best wishes for a happy life.

MR. NAPOLEON BELANGER, of Hull, is one of the young men in photography who believes in keeping to the front, making the best and *nothing* else. His studio is fitted with the latest, and the citizens of Hull are to be congratulated on having so enterprising an artist.

MR. BRACKENSHIRE, of Wingham, has been a most successful photographer, both as to doing good work and making money. We understand he has now retired from business, having sold his gallery to Mr. R. Belden. We hope Mr. Belden will be equally successful.

WE HEAR very favorable reports of the workings of the London Association of Photographers. It is a great benefit to the photographers of that city, and other cities should take heed of Secretary Westlake's suggestion of some months ago, to go and do likewise.

YOU MISS one of the best things of the year if you don't own a copy of Mr. Cramer's elegant book, "Gems From the Prize Ex-

hibit." You cannot afford to be without it. Our advice is to secure one before they are all gone. Order from your dealer or through this office.

THE STANLEY DRY PLATE CO. write us that business has been exceedingly good the past year—better than ever before. We think their standing with the fraternity was well expressed to us lately by a photographer who said of them: "They are good people, and they make good plates," and we simply said: "These are our sentiments, too."

MR. YOUNG SHANNON, so long and favorably known as a leading photographer of Stratford, has removed to London, Ont., where he has fitted up an elegant new gallery. The new gallery is finely fitted up and is well stocked with the best of apparatus. It has a fine entrance and large operating and reception rooms. The color tone of operating room is exceptionally good for fine portrait work. All success to him in his new studio.

WALPOLE SULPHITE OF SODA is as "fine as silk." We have just been testing a sample of it and comparing it with that in ordinary use, and have arrived at the above conclusion. To obtain the best results in development pure sulphite of soda, fresh and energetic in action, is a necessity, and why people will use a sulphite of unknown quality when an article such as the Walpole people put out, is beyond us. Get a sample of it and see if your work isn't better.

We take pleasure in calling the attention of our readers to the advertisement of the Ilotype Company, which will occupy a page of special position for the coming year. The "Ilo" paper made by this firm is one of the best and most thoroughly reliable papers on the market to-day, of which fact a trial of it is sufficient to convince. We hope in a short time to give our readers a sample of the exquisite effects to be obtained on "Ilo" in the shape of a frontispiece illustration. We hope "Ilo" will appear often in your orders.

FROM Messrs. Cadett & Neall, Ashtead, Surrey, England, we have received samples of their special rapid plates. A trial of them convinces us that they are the quickest and best plates we have seen from England. Although, as their name implies, they are "lightning" in speed, they develop with full detail and complete absence of "fog" with either pyro or the newer developers. These

plates should prove a boon to our English workers, and we hope some of our Canadian dealers will be enterprising enough to stock them.

MESSRS. KENNEDY & BELL are two young men who are going to make their mark in the photographic circles of Toronto. A look through their printing room lately showed us some of the prettiest work seen in a long time. Every negative in the frames seemed to have just a little out of the ordinary shown in the pose of the subject. The finished work showed the same effort made to get a *picture*, while the printing and tone were excellent. This probably accounts for every one about the studio being almost too busy to speak. We hope to show our readers a specimen of their work in THE JOURNAL shortly.

MR. LANDON has steadily improved his papers, and they are now giving great satisfaction. In regard to them, Mr. Landon writes us:—"I have the best Platino Matt in the world. I think it knocks out all others. I send you samples this mail. It can be used with any bath that suits the individual taste. It is almost impossible to tell it from real platinum. Owing to the increasing demand for our O. K. and this new matt paper I have to discontinue making the glossy Caledonian paper for the present. I expect to have my new factory ready in a short time, and will then be in a position to supply all demands. New factory will be 45x120 feet, two stories.

THE Royal Photographic Society, which became incorporated on the 1st January in this year, have determined that the Society shall hereafter consist of two classes, Members and Fellows. In future, no members will be admitted to the fellowship until they have given the Council satisfactory proof of the possession by them of suitable qualifications for the title F.R.P.S., which in this way will become a guarantee of distinct ability on the part of its holder in either scientific or artistic photography. The large accession of members to the Society within the past few months has rendered its migration to larger and more convenient premises imperatively necessary, and the Council have this matter now under their consideration.

The first piece of apparatus, afterwards called a shutter, for taking instantaneous photographs, was exhibited by G. M. Levi, at the London Photographic Society, Dec. 1853.

TORONTO CAMERA CLUB.

Monday, Feb. 4th—Club Night. 1. Lantern Competition. Prize presented by the Club for the best slide of a Landscape taken during 1894. 2. Exhibition of miscellaneous Amateur and Professional slides.

Monday, Feb. 11th—Set from the American Lantern Slide Interchange. Probably California Mid-Winter Fair Set.

Monday, Feb. 18—Paper by Mr. W. H. Moss, on "Halation, and how to prevent it," Illustrated by slides.

Monday, Feb. 25th—Practical demonstration, by T. Langton, Q.C., on "Doubles and Freaks."

The annual public entertainment was held in Massey Hall on Jan. 10th, when Mr. Otis A. Poole, of Yokohama, gave his illustrated lecture on "Japan and the Japs." The success of the entertainment was greatly interfered with on account of the disagreeable weather and the large fire which broke out just at seven o'clock, but, notwithstanding this, a very good-sized audience was present, and the committee are glad to report that there will be a small balance on the right side, although the returns are not yet quite complete. Mr. Poole's views were magnificent, and much enjoyed by those present.

Attention is specially called to the fourth annual exhibition, which will be held in the club rooms, March 4th to 9th inclusive. It is hoped that every member will exhibit in as many classes as possible and thus ensure the success of the exhibition. Prospectus and entry forms can be obtained from the Secretary.

Our set of slides were recently exhibited in Chicago, and the *Beacon* for January contains a very flattering criticism of them.

An exchange of slides will take place shortly between the Hamilton, Montreal, St. John, N.B., and the Toronto Camera Club, which cannot fail to be of great interest.

ERNEST M. LAKE, *Sec.-Treas.*

OTTAWA CAMERA CLUB.

Notes of meeting held on Monday evening, Jan. 7th, 1895. The President, Mr. White, in the chair, and a full attendance of members.

After the regular business was transacted the chairman called upon Mr. Topley, one of our leading photographers and a valuable

member of the club, who gave a very interesting talk on "Developers," in which he referred briefly to the distinctive qualities of the numerous reducing agents now on the market, and mentioned the various kinds of work and the different processes to which each of them was particularly adapted.

At the close of his remarks specimen prints, brought by the members for criticism and discussion, were distributed among those present, and after being freely inspected and discussed, were very ably criticized by Mr. Watts. Some excellent work was shown by Misses Mather and Ballantyne, Dr. Loux, and Messrs. Whyte, Wilson, Pinard, Watts and Garrow.

Several members are about to commence lantern slide making, so we hope at an early date to have a good set of slides for interchange.

MINNEAPOLIS CAMERA CLUB.

At the club rooms lately, a lecture entitled "The Midwinter Fair," was given. This was a nicely written description of the California Midwinter Fair, illustrated with 160 very fine views which were made by California Camera Club.

An entertainment was given at the club rooms Wednesday evening, January 16th, consisting of a nicely written description of scenes in the "Cotton Belt" States, and also the Salmon Fisheries of the North-West, illustrated with lantern slides.

C. J. HIBBARD, *Secretary.*

CALIFORNIA CAMERA CLUB.

Evening of Dec. 26th—Dr. Goodrum gave an interesting demonstration on "Pyro developing."

The 55th illustrated lecture was given Dec. 28th by Mrs. M. L. Gans, entitled, "The war between Japan and China." The lecture and slides were much enjoyed.

Jan. 9th—Mr. O. V. Lang gave a demonstration on developing with Eiko-Hydro.

Jan. 16th—An exhibition of slides from the Newark and Orange Clubs was given.

Jan. 18th—For the 56th illustrated lecture, Capt. Cochrane gave "Scenes Strange and Sights Familiar." The slides were made from pictures gathered from all parts of the globe, and were thrown upon a screen twenty feet square. The usual musical programme was

also carried out. The "Little Jim" fund raised by the club lately through entertainments to furnish a hospital cot was announced as \$372.50.

Jan. 23rd—Dr. Passavant gave a demonstration on "Developing instantaneous exposures with Amidol and Metol."

THE PHOTOGRAPHIC SOCIETY OF JAPAN.

An ordinary meeting of the above mentioned Society was held in the rooms of the Geographical Society (Chigaku-Kyokai) Nishikonya-cho, Kyobashi-ku, Tokyo, on Friday, December 13th, at 5 p.m., Mr. C. D. West, M.A., in the chair.

Mr. K. Arito had sent, from London, a print showing the result of developing and toning "Solio" paper, after a short exposure only had been given. The picture was clear in the whites, showed a full graduation, and was of a particularly pleasing color. The following is the method of working the process:

About one-fifteenth of the usual exposure is given (about one minute to bright sunlight, with a fairly dense negative) when a faint image only is visible. This image is then developed with the following solutions:

A	
Hydrokinone	½ ounce.
Sulphite of Soda	½ ounce.
Potassium Bromide	1 ounce.
Ammonium Bromide	1 ounce.
Water	64 ounces.

B	
Caustic Soda	¼ ounce.
Water	16 ounces.

C	
Tannic Acid	3 grains.
Water	1 ounce.

To be mixed in the proportions of A 5 ounces, B 1 ounce, and C 1 drachm.

When the print is placed in this solution, it first turns yellow, but gradually darkens. As the print further darkens in the after processes, it is necessary to develop only till about one half the intensity eventually wanted has been acquired. The time taken is from 20 to 30 minutes.

After development, the print is placed for a few minutes in the following solution:

Acetic Acid	3 drachms.
Water	128 ounces.

So far the light used should be yellow light, or the light of a gas or lamp flame. After the prints have been for a minute or so in the toning solution, made up as follows, white light will do them no harm:

A.	
Hyposulphite of Sodium	3 ounces.
Burned Alum	6 ounces.
Water	80 ounces.

After solution, 2 ounces of borax to be added.

B.	
Chloride of Gold	15 grains.
Acetate of Lead	64 grains.
Water	8 ounces.

For use the solutions are mixed in the proportion of 8 parts A to 1 part of B.

A print sent by the American "Aristo" paper Company on paper called by the name of "Aristo-Platino" paper was shown. The surface of the paper was matt, and, although the toning had been in gold, the tint was as near as possible that of a platinotype.

The chairman then called on Messrs. W. K. Burton and T. Kondo to demonstrate the Kalotype process.

The demonstrators stated that they considered this process to have certain advantages over any other. They would not compare its general merits with those of the Platinotype process, which latter they considered the first of all processes, but it—the Kalotype process—had certain advantages of its own. It was cheap, was very easily worked, and was the only process they knew, giving a visible image, that would give a true black print from a thin negative and that seemed suitable to almost any kind of paper. The process depends on the fact that ferric oxalate is sensitive to light, being changed thereby into ferrous oxalate, which latter salt has the power of reducing various metallic salts, nitrate of silver amongst the number.

The process is a very old one, but that worked by the demonstrators was a modification of a recent form thereof, introduced by Mr. O. P. Bennett. The following is a description of the process:

SENSITIZING SOLUTION.

Ferric Oxalate	75 grains.
Silver Nitrate	30 grains.
Water	1 ounce.

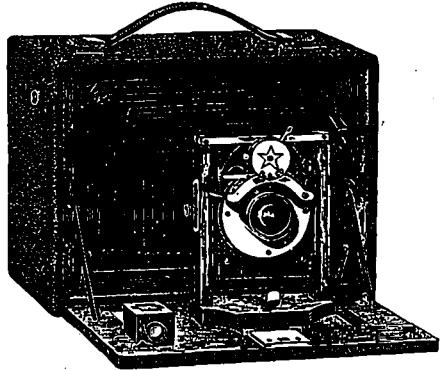
This solution is swabbed over the paper with a wad of cotton wool. The coating is, of course, made as even as possible, but streakiness that cannot be avoided does not, as a rule, show in the finished print. The paper is dried in front of a clear fire before the solution has time to sink into it.

Paper so prepared will keep for several days in any ordinary wrapping, for months in a calcium tube.

The quantity mentioned is enough to coat about 10 square feet of smooth paper, 5 feet of extra-rough drawing paper.

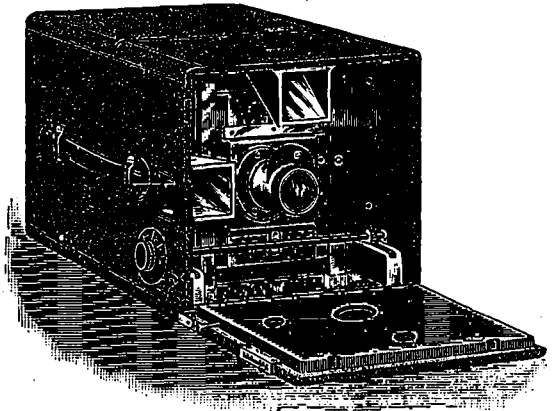
(Continued on page 51).

The Folding Premo



Is the latest, most compact and best Camera of the kind yet placed on the market. It has all adjustments for hand and tripod work, including Swing Back and Sliding Front, fitted with our new Silent Shutter. The 4 x 5 Premo measures only $5\frac{1}{2}$ x $6\frac{1}{2}$ x $4\frac{3}{4}$ inches and weighs 2 pounds.

Premier Cameras



Still maintain their position as the Best all round Cameras made at anywhere near the price.

THE NEW PREMIER No. 2

has Swing Back and Sliding Front. Glass Plates, Cut or Roll Films may all be used. Send for complete Catalogue. All dealers sell our goods.

ROCHESTER OPTICAL CO.,

ROCHESTER, New York.

When writing advertisers please mention this journal.

PRINTING

is done in the ordinary printing frames, the time taken being about one-third that needed for albuminized paper. The image is visible, and has the exact appearance of the image in the platinotype process—in fact it is of exactly the same nature—and any one accustomed to platinotype printing can readily judge when the paper should be taken from the frame.

DEVELOPER.

Rochelle Salt..... 1 ounce.
Saturated solution of Borax..... 10 ounces.

RESTRAINER.

A one per cent. solution of bi-chromate of potassium.

The effect of the restrainer is very marked. Without any of it the prints are liable to be "muddy" and to have impure whites. The least that is needed is 7 or 8 minims to each ounce of solution, and no more than this should be used for negatives such as are suitable for printing with albuminized paper or such as are at all hard. In printing from thin negatives, restrainer up to the extent of 30 minims per ounce may be used, the exposure being correspondingly increased. In this way it is possible to get brilliant prints from negatives too thin to give such by any other process.

The image develops from a pale yellow color to a full deep black in a few seconds, but if the print be at once removed from the solution it will be found that the high lights are yellow. It must remain in the solution for at least quarter of an hour. It is to be observed that no further actual developing action takes place during this time. Though the developer can be altered to suit different negatives, or even to a certain extent to compensate for error in exposure, the result cannot be modified in any way when once the print is in the developer.

In using smooth paper, a number of prints may be developed in the same solution, pouring the developer into a measuring-glass as soon as one print is developed, placing an undeveloped print on the top of this latter, and returning the developing solution, the prints being afterwards kept moving just as in the ordinary toning process. In using very rough paper, however, this procedure is not permissible, as the image gets rubbed from the tops of the rougosityes of the paper, with the result of a mottled effect.

After development the prints are washed in three or four changes of water, and are then placed in the

FIXING BATH,

consisting of a one per cent mixture of strongest ammonia and water, where they remain for about a quarter of an hour. Washing for half an hour completes the process.

A number of samples of work on different kinds of paper were shown, some being on common cartridge paper.

The proceedings ended with a vote of thanks to the chairman.

ANSWERS TO CORRESPONDENTS.

"JAMES."—To prevent curling of edges of mat surface prints they should always be dried between blotting paper under pressure. If not so dried place for a few moments before mounting in

Alcohol	-	1 oz.
Hot water	-	1 pint.

"PRINTER."—You should certainly have one at least of the annuals. We have not seen Mosaic's this year, but the others mentioned are all good and contain the tables you require.

OUR ILLUSTRATION.

We were disappointed in our Photographic frontispiece for this month, the pictures not being ready for us at time of going to press. We therefore present our readers with a fine specimen of work done by the Grip Co., engravers and designers, 30 Lombard St., this city, who maintain a place in the half-tone world, well to the front. Their excellent reproduction is from a large photograph by W. M. Morrison, Chicago, taken on a Cramer plate and printed on American aristo paper. It is one of the pictures that grace Mr. Cramer's great book of exhibition pictures.

