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THE
CANADIAN PHOTOGRAPHIC
JOURNAL.

DEVOTED TO THE INTERESTS OF THE PROFESSIONAL AND AMATEUR PHOTOGRAPHER.

VOL. IV.

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No. 7.

THE
Canadian Photographic Journal.

PUBLISHED MONTHLY AT

TORONTO, CANADA.

GEORGE W. GILSON, - - EDITOR.

Subscription Price.—\$2.00 per year. \$1.00 for six months. Single copies 25 cents. 50 cents per year extra on foreign subscriptions.

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

Canadian Photographic Journal,

TORONTO.

EDITORIAL CHAT.

ARE you going to be "with us" at the Convention this year? and if not, why not? The Executive Committee advise us that they are going to discount anything in the convention line that we ever had before. They are working hard to this end, and they expect a big attendance. Don't disappoint them. Come up to Toronto for a few days, even if you have to shut up shop to do so. You will have "bargain day" fares on the railroads. You can see the greatest fair on earth and attend your trade Convention, where you can see and learn more than you would in ten years at home. To those who have never attended a convention of the P. A. of C., we say, What you have guessed about the Convention may be all wrong; come up and see.

THERE'S the P. A. of A. Convention in Detroit—every one who possibly can should go to that, too. Ontario, at least, should be well represented.

They are going to have a great Convention this year. Our friends in the States will make a special effort this year, as they are arranging to form State organizations, and will not hold another P. A. of A. Convention for three years. Particulars of both conventions will be found in this issue.

THE following communication from Secretary-Treasurer Poole speaks for itself :

"MR. EDITOR,—In our prize list I have just discovered that it does not appear that the prizes are *silverware*. Kindly emphasize that fact in your journal, please—that they *are* silver. You may say truthfully they are a magnificent lot of prizes.

"Yours truly,

"E. POOLE, *Sec.-Treas.*

"St. Catharines, July 8th."

PARTICULARS are also given in this issue of the annual exhibitions of the Royal Photographic Society of Great Britain and of the "Salon." We hope to see the names of some of our Canadian workers in the catalogues of both exhibitions.

OUR Canadian photographers are too apt to let their diffidence, or modesty, keep them in the background. Canada has men, in both the professional and amateur ranks, who only need to come to the front boldly at the exhibitions of England or any other country to be recognized as their worth merits.

COMPETITION is said to be the life of trade. It is certainly often the life and soul of improvement. Many of the best workers of the day were satisfied with a medium quality of work until aroused from their mediocrity

by a first showing at a photographic exhibition. With their eyes opened to the real standing of their work, shown by comparison, and an incentive given for improvement, the first day's work on returning home, and that of every day after, was done with the purpose in view of getting the work up to the standard of the prize winners. A healthy appetite for *good* work, that needs steady improvement to satisfy it, is what the tonic of competition generally builds up. We hope to find a large number taking the tonic at the coming Convention of the P. A. of C.

SUMMER DEVELOPMENT.

By T. H.



UR summer with some of its dreaded—dreaded at least by the photographer—hot days, is here apace. We all know how the mechanical action of heat accelerates development, and most of us have at some time or other been troubled with the foggy, flat negatives resulting from it.

There are, however, a few precautions which, rightly used, will prevent much trouble. To begin with, the plates should always be kept both before and after exposure in a cool, *dry* place. Dampness is injurious to the film.

We almost invariably overtime our plates in summer, failing to appreciate the difference between the glaring light during this season and that of

other seasons. Even with the light curtailed down to give the softest effects, an exposure as quickly as we can open and release the shutter is ordinarily more than sufficient on a bright summer day. A slow, instantaneous shutter, giving speeds of a tenth, a quarter, and a half of a second, and a little study of the differing ratios of light, will be of help here.

There can be no question as to the wisdom of keeping the trays, during development, in a larger tray or sink containing ice-water. A better way, where water is plentiful and cool as it runs from the tap, is to dispense with the ice, and place the developing trays in a larger tray or sink through which the water is constantly passing. An ordinary large tray, having a depressed corner for an outlet, is the best, the water being carried to it from the tap by a piece of rubber hose.

The next point concerns the amount of alkali in the developer. Our formulas do not usually take into consideration either heat or cold. A reduction of the sal soda in a developer which contains a maximum of it will usually give clearer and more brilliant negatives. The following is a pyro formula which has been used very successfully :

Stock solution "A"—

Pyro..... 1 oz.
Sulphuric acid..... 60 min.
Water..... 24 ozs.

Stock solution "B"—

Sulphite soda to test 30 by hydrometer.

Stock solution "C"—

Sal soda to test 25 by hydrometer.

Half oz. of each to 4 to 6 oz. of water.

Metol, the now developer, has a greater tendency to clearness and hardness of film than many of the other developers. The following metol-hydroquinone formula is adapted for summer use :

Metol..... 30 grs.

Hydroquinone..... 30 grs.

Dissolve in 10 oz. of hot water.

Sulphite soda, 10 oz., to test 30 by the hydrometer.

Sal soda, 10 oz., to test 15 by the hydrometer.

Mix and filter. For over-exposures add old developer or a few drops of bromide.

Another good metol developer is :

Solution "A"—

Metol, 75 grs. dissolved in 10 oz. hot water, when dissolved add 10 oz. of a sulphite solution to test 30.

Solution "B"—

Sal soda to test 20.

For use, 2 parts of "A" to 1 of "B."

A separate alum bath is preferable to an alum or acid fixing bath. The plates while in the fixing bath should be in a vertical position. This will give clearer, cleaner negatives.

FIXING BATH.—Thirty-two ounces of Sulphite of Soda (Hydrometer test 60), add to this 1 ounce of Sulphuric Acid, very slowly, and 8 ounces solution of Chrome Alum (Hydrometer test 60), then add the whole to 2 gallons saturated solution of Hypo, and it is ready for use. Leave the negative a few minutes longer in the bath than is required for fixing. This is important, as the permanency of the negative depends upon it. Don't use a flat tray to fix in ; it causes spots and dirt. Use a grooved box.



THE P. A. OF C.

To the Members of the Photographic Association of Canada :

GENTLEMEN, — Your Executive Committee beg to notify you that Wednesday and Thursday, September 11th and 12th, 1895, has been decided on for our Twelfth Annual Convention. Put a red line under the date on the calendar and get ready to be there. Toronto Fair will be at its height ; you can take that in also if you like, and get home for single fare on all railroads and steamers.

If the last Convention was a good one (and everyone said it was), we hope to make this a better one. It was decided to hold a two days' session this year ; but all displays by manufacturers, and all photographs entered for competition for prizes, must be in place the day before, or not later than 10 a.m. Wednesday, September 11th, at which hour the business of the Convention will positively commence.

It is just possible that this circular may fall into the hands of some who don't attend the Convention, who don't like the way the Association is run, or who don't like some other things connected with the Association.

If you are one of the number, we extend a very cordial invitation to be with us this year and take a leading part in all discussions, and show just how it ought to be done ; and we will strive to give you a few pointers in return, so all may profit.

We invite your perusal of the following prize list, which should be of interest to everyone, as the prizes are better and more of them than for any one year since prizes were offered.

If you have any suggestions for the Convention (and we hope you have), kindly send them to either the President or Secretary, who will bring them to the notice of the Executive Committee.

A number of capable demonstrators are being secured to give practical ideas on different subjects. Watch for the programme.

A. M. CUNNINGHAM, *President*,
Hamilton, Ont.

E. POOLE, *Secretary-Treasurer*,
St. Catharines, Ont.

The following handsome prizes are offered for competition at the Photographic Convention, Toronto, on Wednesday and Thursday, September 11th and 12th, 1895 :

Portraits.—For the best twenty photographs, of which six must be 8x10 or larger : 1st prize, a magnificent gold inlaid and decorated epergne, value \$40 ; 2nd prize, a beautiful gold inlaid toilet set, with jewel stand, \$34.50 ; 3rd prize, a handsome gold inlaid fruit, Venetian hand-laid glass, \$28 ; 4th prize, a finely decorated fruit dish, \$23 ; 5th prize, a finely decorated fruit dish, \$20 ; 6th prize, a large

decorated flower vase, \$18.50; 7th prize, a fruit or nut dish, satin engraved, gold lined, \$15.50; 8th prize, a satin-finished pitcher, gold lined, \$9.75; 9th prize, a handsome breakfast cruet, four cut-glass bottles, \$9; 10th prize, a bright silver cake basket, \$8.

For the best twelve views, Landscape or, Architectural, not less than $6\frac{1}{2} \times 8\frac{1}{2}$ in size: 1st prize, a handsome jardiniere, value \$18; 2nd prize, a satin-finished ice pitcher, double wall, \$10.

Special.—For the best single photograph, 11 x 14, or larger: A magnificent mirror, gold inlaid frame, bevelled glass, value \$35. (The picture receiving this award must score 45 out of a possible 60, and shall become the property of the Association.)

Employees' Prizes.—*Printing*—For the best six prints on any paper: 1st prize, a beautifully decorated vase, value, \$9.50; 2nd prize, engraved crystal cologne, \$6.50; 3rd prize, flower vase, blue Malachite, \$4.25. *Retouching*—For the best retouching on six negatives, any size, prints showing before and after to be submitted: 1st prize, gold inlaid vase, Barbatine, value \$9; 2nd prize, Cologne crystal, engraved, \$7.50.

Rules Governing Exhibits.—The method of judging will be the same as in former years, viz.: Ten points each for posing, lighting, chemical effect, printing, retouching and neatness of exhibit—sixty points in all. In consideration of the fact that the photographer in small towns is at a disadvantage compared to those in larger places, an allowance of six points (gratis) will be made on all exhibits from towns of less than 7,000

population. All photos must be from negatives made since November 1st, 1894. Each exhibit must be accompanied by a representative of the gallery in which the display was prepared. Any plate and any printing process may be used at the discretion of the exhibitor. Photographs may bear the name of the exhibitor.

THE ROYAL PHOTOGRAPHIC SOCIETY.

Fortieth annual exhibition will be held at 5a, Pall Mall East, from September 30th to November 14th, 1895.

Medals will be placed at the disposal of judges for the artistic, scientific and technical excellence of photographs, lantern slides, transparencies, and for apparatus. Exhibitors who desire to do so may state whether they wish their exhibits to go before the judges in the Art or Technical Section, or both. The exhibition will be conducted according to the rules adopted at the recent Conference of Judges.

A number of well-known gentlemen have consented to serve as judges.

Foreign exhibitors are invited to contribute. The Society will provide frames or portfolios during the exhibition for approved photographs. There will be no charge for wall space.

Reception of exhibits. Exhibits sent by carrier must be *carriage paid*, and addressed to the secretary, Royal Photographic Society, 12 Hanover Square, London, W., and should arrive by Saturday, September 14th, at the latest. Entry forms may be obtained from Mr. R. Child Bayley, 12 Hanover Square, London, W.

STANDARDS.



FROM the *Journal of the Philadelphia Society* we abstract the following interesting report of a committee of well-known men, on a subject that has long needed attention—the making of photographic fittings, plates,

etc., to standard sizes :

To the Photographic Society of Philadelphia:

GENTLEMEN,—Your Committee on Standards have the honor to report as follows :

The matters which seemed to us to be in special need of standardising, and at the same time appeared to be of such a nature that reforms were practicable, are in our opinion the following :

Lens mounts and fittings.

Tripod screws.

Camera screws.

Sizes of dry plates.

Expressing the sensitiveness of plates.

Lantern-slide mats.

Manner of expressing formulæ.

After careful consideration of these subjects, we respectfully recommend the following for adoption :

Lens Mounts and Fittings.—All lens mounts up to 3" diameter to have 16 threads per inch, and above 3" to have 12 threads per inch cut upon the part entering the flange.

All threads to be United States standard, and to be cut off abruptly at the zero point. All flanges or adapters to have marks upon them to indicate the positions of the diaphragm slots or indices of the lenses, when screwed home.

The mark on any adapter should coincide with the mark upon any flange into which it is screwed. This mark should be placed at the point at which the thread

becomes complete, at the shoulder of the flange or adapter.

All flanges to be plainly marked with the diameter of the lens mounts which screw into them, and all adapters to be plainly marked with the diameters of their internal and external screws.

All lens mounts and fittings to vary in diameters by quarters of an inch up to $2\frac{1}{2}$ ", by half inches up to $3\frac{1}{2}$ ", and all above that size to vary by inches.

All lens mounts to have the diameter of the threaded part which screws into the flange plainly marked upon them.

Our reasons for the above recommendations are as follows :

1. The pitches of threads as above recommended, while enabling the lens to be screwed home with fewer turns than with the present system, will also insure the lens as a whole being disengaged from its flange when unscrewing, instead of the tube coming off from the back combination, as frequently occurs under the present practice.

2. We recommend the United States standard thread because of its ease of reproduction without the aid of costly special tools, and because it is the standard that has been adopted by all mechanics in this country.

3. We recommend that the thread be cut off abruptly at the zero point, because it eliminates the danger of getting threads crossed when starting to screw the lens into the flange, and also acts as a tap to clean out any dirt that may have lodged in the threads of the flange.

4. We recommend the marking of flanges and adapters and the dimensions of variation in lens mounts and fittings, which we have copied from the recommendation on standards of the Photographic Society of Great Britain, because they seem to be of such obvious advantage that no explanation is necessary.

Tripod Screws.—All tripod screws to be either $\frac{1}{4}$ ", $\frac{5}{16}$ ", $\frac{3}{8}$ ", or $\frac{7}{8}$ " in diameter, and in pitch of thread and other details to conform to the United States standard.

Your Committee believe that these sizes will be ample to hold all cameras, from the smallest kodak to the largest size in use.

Camera Screws.—All camera screws which are used to operate movable parts or to clamp those parts in position, but not including screws used in the permanent construction, to be of either of the following standard machine-screw sizes and threads: No. 4, 36 threads; No. 6, 32 threads; No. 8, 30 threads; or No. 10, 24 threads.

We recommend these sizes and threads because lost or broken screws and nuts can easily be temporarily replaced at any hardware store, and all breakages could be permanently repaired at any ordinary machine shop, where these sizes are standard.

Sizes of Plates.—All sizes of plates to be derived from the size now known as 5 x 7, and shall either be multiples or divisions of that size. The smallest size we have provided for is $3\frac{1}{2}$ x 5, and each advancing size shall have its breadth equal to the length of the preceding size, while its length shall be twice the breadth of the preceding size. Thus the series would be $3\frac{1}{2}$ x 5, 5 x 7, 7 x 10, 10 x 14, 14 x 20, 20 x 28, and 28 x 40.

We recommend the above sizes because the proportion of 5 x 7 seems a desirable one from an artistic standpoint, and that these sizes give a practically constant proportion throughout the entire system.

Expressing the Sensitiveness of Plates.—We recommend as expressing our opinions the adoption of the report of the Standard Sensitometer Committee, which was presented to this body December 13th, 1893.

Our reasons are that we believe that the system therein recommended presents

more advantages than any other that has yet been devised.

Lantern-Slide Mats.—The standard size openings for lantern-slide mats to be 2 inches by $2\frac{7}{8}$ inches.

We recommend this size because in round numbers it conforms in proportion to the series of sizes recommended for dry plates and appears to be a more generally artistic and pleasing shape than the squarer form now generally used.

Manner of Expressing Formulæ.—All formulæ to be expressed in parts by weight.

We recommend this because formulæ so expressed can be readily translated into either the English or metric system, thus enabling the worker who prefers one system to present his results in a form strictly comparable with those of someone else who may prefer the other system. The advantages of this will most often practically be seen in the expression of developing formulæ, enabling one at once to see what proportion of pyro or other developing agent is being employed.

It will be noticed that in this report we have differed from the standards of screw threads recommended by the Photographic Society of Great Britain. We have done this because they recommend the adoption of the Whitworth thread, which is based on entirely empirical rules and can only be originated by the use of costly special tools.

Your Committee would finally recommend that this Society take suitable steps to gain the co-operation of the other principal societies in inducing manufacturers to adopt such standards as may finally be decided upon.

S. ASHTON HAND,
C. R. PANCOAST,
F. WM. GEISSE,
FRANK BEMENT,
CASPAR W. MILLER.

PHOTOGRAPHERS' ASSOCIATION OF AMERICA.



LIST OF Prizes, Rules and Regulations pertaining to the Fifteenth Annual Convention to be held at Detroit, Mich., August 6th to 9th, 1895.

LIST OF AWARDS.

List of awards for 1895 are as follows:

The Special Prize will be an elaborate silver cup for the best illustration of Ella Wheeler Wilcox's poem, "Maurine." One picture, thirteen inches or larger. To be framed at the discretion of the exhibitor, with or without glass; the standard of this reward must be twenty-one points out of a possible thirty.

Genre Prize—A diamond charm. Three pictures, thirteen inches or larger, on any matt-surface paper, subject to be chosen by the photographer; the title to be appropriately inscribed on each picture. To be framed at the discretion of the exhibitor, with or without glass.

The Grand Prize—A bronze or marble figure-piece, published later (portrait photography exclusively). Thirty-six pictures, exhibit to consist of twelve cabinet, twelve Paris panels, and twelve pictures thirteen inches or larger.

Class A.—Six pictures, sixteen inches or larger, one gold medal, one silver medal, and one bronze medal, and one diploma.

Class B.—Twelve pictures, Paris panels to sixteen inches, one gold medal, one silver medal, one bronze medal, and one diploma.

Class C.—Twenty-four pictures, cabinet to Paris panels, one gold medal, one silver medal, three bronze medals, and one diploma.

Class D.—Rating competition, twelve cabinets only, one silver medal, one bronze medal, and diplomas to all over twenty-one per cent. *Competitors in classes above this cannot compete in this class, but can in all classes below.*

Class E.—Landscape photography, twelve pictures, seven inches or larger, one silver medal, one bronze medal, and one diploma.

Class F.—Landscape photography with figures introduced, twelve pictures, seven inches or larger, one silver medal, one bronze medal, and one diploma.

Class G.—Interiors, twelve pictures, seven inches or larger, one silver medal, one bronze medal, and one diploma.

Class H.—Marine views, twelve pictures, nine inches or larger, one silver medal, one bronze medal, and one diploma.

Class I.—Combination pictures, three combination prints, size to be left to the discretion of the photographer, framed with or without glass, one gold, one silver, one bronze medal, and one diploma.

Class J.—Composition groups. this class to consist of single photographs or groups, grouped with back worked in, one gold, one silver, one bronze medal, and one diploma.

Class K.—Commercial work, one silver medal, one bronze medal, and one diploma.

Class L.—Most tastefully arranged exhibit, one diploma.

Class M.—For best improvement in photographic appliances introduced since the last Convention, one diploma.

Class N.—Foreign exhibit, best collection of photographs, any size, framed or unframed, to be delivered to the Association free of charges, one silver medal and one diploma.

Competitors are allowed to compete in all three of the special, genre and grand prizes.

RULES AND REGULATIONS.

1. All prizes offered by manufacturers, and the manner of awarding, must be submitted to and accepted by the Executive Officers.

2. All competitors must be members of the Association.

3. Exhibitors in special, genre, and grand prizes cannot compete in Classes A, B, and C. All photographs for Association prizes must be made from negatives taken since the last Convention.

4. One dimension given applies to either length or breadth of picture in all classes:

5. Should any exhibitor or exhibitors use his or their influence in any way directly or indirectly with the judges, during their term of office, in favor of any exhibit, it shall be the duty of the judges to strike their exhibit or exhibits from the list. It is requested that all exhibits of pictures shall be framed in moulding not to exceed two inches in width.

6. Any manufacturer or manufacturers who desire to make an exhibition of his or their product in Art Department, and not enter for Association competition, cannot occupy more

than six lineal feet of space in said department for any one exhibit, and no exhibit will be accepted in the above department unless the exhibitors are members of the Association. (This does not apply to foreign exhibitors.)

7. Ten marks to be the highest given for any one point, consequently thirty points is the highest that can be given to any one picture. Cabinets and Paris panels to be judged as an exhibit, not as individual pictures.

8. All exhibits must be shipped to the Art Museum by August 1st, and *all charges prepaid*.

9. Applications for space must be made to C. M. Hayes, 246 Woodward Ave., Detroit, Mich.

10. Entries for Art Department to close positively August 1st. No space will be allotted for exhibits after that day.

11. All art exhibits must be sent to R. P. Bellsmith, First Vice-President P. A. of A., to the Art Museum, Detroit, Mich., *and all charges prepaid*.

12. Exhibits for Stock Department to be shipped to C. M. Hayes, Secretary P. A. of A., *charges prepaid*, Art Museum, Detroit, Mich., and placed in position by 9 a.m., August 6th.

13. Have your box covers screwed instead of nailed; *put your home address on the under side of the cover for return of pictures*. Put screw-eyes and picture wire in box, and ship your exhibits early. All boxes and packages will be accepted at any time previous to the Convention, so that photographers need not feel any uncertainty about the safety of their goods.

MARKINGS TO BE CONSIDERED IN ALL CLASSES.

Special and Genre Classes.—First, illustrative; second, originality; third, photographic results.

For Portrait Classes.—First, posing; second, lighting; third, chemical effect.

Class E.—First, pictorial effect; second, chemical effect.

Class F.—First, pictorial effect; second, lighting; third, chemical effect.

Class G.—First, technique; second, chemical effect.

Class H.—First, pictorial effect; second, chemical effect.

Class I.—First, originality; second, composition; third, general effect.

Class J.—First, originality; second, composition; third, general effect.

Class K.—First, chemical effect; second, general effect.

Class L.—Judges to be appointed by the Executive Officers.

JUDGES.

Twelve members (non-exhibitors) to be selected by the Executive Committee on the morning of the first day of the Convention; eight of the said twelve to be elected in open meeting by ballot. Three of the eight so elected to be selected by lot; the three selected to report for instructions to the Secretary immediately afterwards.

Each Judge to be compensated to the amount of \$25 for his services.

A programme giving information as to hotels and railroads, what the Detroit photographers are going to

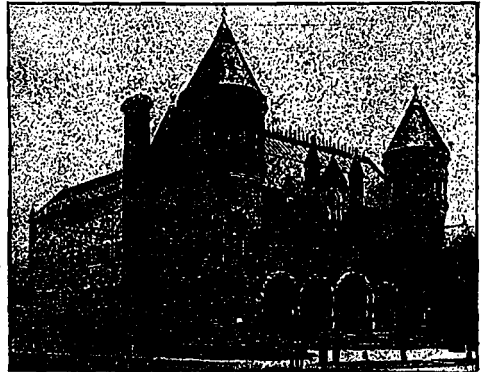
do with the visitors, etc., will be published soon. It is sufficient to say that the photographers have held meetings and are a unit as to making the Detroit Convention the star one.

C. M. HAYES, *Secretary*.

Regarding the coming Convention Secretary Hayes writes:

DETROIT, Mich., July 6, 1895.

The policy outlined by the officers and members of the Association to make the Detroit Convention the star one, has received nothing but encouragement in the matter of obtaining



DETROIT MUSEUM OF ART

WHERE THE DETROIT CONVENTION WILL BE HELD

instructive articles and experts to give practical demonstrations; while there has been nothing to indicate that these would not be the features, there is another set of men that have been quietly at work on the entertainment part of it. They do not propose to be outclassed by any previous workers in the same field; however, their modesty is such a quality that were you to write to one of them today as to whether the entertainment was to be of a superior order or not,

their answer would be that the generous donation of funds is sufficient to make a very fine showing, if the Committee properly handle them. The hustling and methodical chairman, Mr. McMichael, of the Entertainment Committee, does not leave anything half done, and from the interest shown by him and his committee in this Convention, there is no doubt but they have done their best. At three o'clock in the afternoon of the last day, on the beautiful steamer *Pleasure*, the whole party are going to take a ride on the grandest river and prettiest lake on the continent, to the famous "Flats." To those who have not been fortunate enough to see this "American Venice," a rare novelty will be presented, and which the most *blase* traveller cannot help but admire. Time enough will be spent there to give some of those "expert" fishermen, that can always be found among demonstrators, an opportunity to verify some of their unique statements as to their merits as such. A banquet will either be served here or on the boat, after which Mr. McMichael has arranged with the weather bureau for a nice moonlight night for the ride back to Detroit. Incidentally there will be a stereoptican exhibition, on one of the evenings during the session, by that old veteran and famous photographer, Jex. Barwell, who insists that he has the finest set of colored slides that he has ever seen. He has got these for the special edification and benefit of the P. A. of A. The large hall and facilities for this and the exhibition of some of the finest works taken from exhibits for criticism, will make

a departure from the sometimes tiresome stereoptican exhibition.

The director of the Museum of Art, Mr. Griffith, will deliver his famous lecture on photography, with examples of every stage from the beginning. Concerning this lecture, suffice it to say that at its second delivery it drew over 2,000 listeners. Mr. Griffith will also assist in the criticism of the pictures shown on the screen during the evening session. Every photographer who has ambition artistically, and has an understanding of the business opportunities presented him by gathering and exchanging new ideas with the cream of his profession, should consider this opportunity offered him, by his attendance at this Convention, of incalculable value.

One thing more: this Convention will, in all probability, be the last one held for three years, and the consideration of the revision of the constitution, to make it coincide with that of the State Association, will be one of the principal things considered; also as to whether we shall continue the trophies in the shape of medals, diplomas and other prizes, for the betterment of photographers in their workmanship, thereby bettering their prices and conditions, is something to be thought of, and if meeting with the approval of the reader, is best evidenced by his membership and attendance.

The railroads throughout the country have given us assurances of granting us a concession of a fare and one-third for the round trip. It will be necessary for each individual who wishes this advantage to make appli-

cation to his railroad agent, and while in Detroit to have the Secretary sign his certificate. Do not fail to do this, otherwise it means full fare.

Faternally,

C. M. HAYES,
Sec. P. A. of A.

P.S.—Of course you will attend! Detroit and its Museum of Art is unquestionably the finest place to hold a Convention and display photographs the Association has ever had.

THE PRACTICE OF PHOTOGRAPHY.

(Continued from our June number.)

By THOMAS F. HOWE.

ELEMENTARY PAPERS FOR BEGINNERS.

EXPOSURE.

Having selected the view, focussed it, and put the proper stop in the lens, cap the lens and substitute the plate-holder for the ground glass, which usually swings back out of the way. Throw the focussing cloth over the rear of the camera, covering the plate-holder. Then, with a steady movement, withdraw the slide nearest the lens from the holder.

This done, you are ready to give the exposure, which is to give you the picture, and on the correct timing of that exposure depends much of the success of the picture.

There are many things governing the correct length of an exposure, and they can only be learned by experience. The rapidity of the plate,

the size of the stop in the lens, the amount and color of the light, the color of the objects to be photographed, and their distance from the camera, all affect the length of the exposure. When photographing objects in shadow, the exposure must be increased, and so should it be when the object being photographed is near. Light colors, such as white and blue, which are called actinic colors, require much less time than the colors at the other end of the spectrum, such as oranges and reds. Using a plate of medium speed, a medium sized stop in the lens, and some time between nine and five o'clock in summer, the exposure for an ordinary landscape would be from two to five seconds.

However, the exposure need not be exact, a slightly under or over-exposed plate, if noticed in time during development, can be controlled to give fair results. It is best to err in favor of over exposure, as that can be more readily controlled, as the image is there, but where the light has not had time to act on the plate, no developer in existence can bring detail there. The correct time can soon be learned by experience, which brings an intuition that is rarely mistaken.

In making the exposure, remove the cap from the lens with a steady movement, as the least jar to the camera during exposure will cause the picture to be blurred. When the proper time has elapsed, replace the cap and replace the slide in the holder, being careful to put it in squarely, as if you shove in one end first you will admit light and fog the plate.

Always be careful to keep your

plate holders, when filled, shielded, as much as convenient, from direct sunlight, keeping them in the carrying case until needed.

Now, as to the care of your apparatus, keep the lens clean by gently rubbing it with a piece of chamois skin, flecking the particles of dirt away and not rubbing them in. Occasionally dust the interior of the camera and plate-holders.

DEVELOPMENT.

There are many differing kinds of developers, each having merits of their own, pyrogallic acid—known as pyro—being perhaps the most generally used. Recently a newer developer, metol, has displaced it to an extent, especially for amateurs' use, as it has qualities which make it preferable to any other developer for them. It is prepared after many differing formulas, and can be bought in solution which is ready for use, requiring only the addition of water. It is better for the beginner to mix his own developer where time will admit of it, as it gives a knowledge of the use of the different chemicals and of their variation, to obtain any desired result.

In ten ounces of hot water place seventy-five grains of metol, and when

thoroughly dissolved, add one ounce of sulphite of soda in crystals. Label this bottle "A." In another bottle dissolve half an ounce of carbonate of potassium in fifteen ounces of water, and label "B." Prepare a fixing bath of four ounces of hyposulphite of soda in twenty ounces of water; and for summer use an alum bath of two ounces of crystal alum in twenty ounces of water.

Never use the graduates or trays that you use to hold developers for any other purpose. The least trace of hypo from your fixing bath would ruin your plates.

When ready to develop, retire to your dark room, and with light excluded as carefully as when you filled the holders, remove the exposed plates. You will notice that exposure has caused no apparent change.

Prepare your developer by taking equal quantities of "A" and "B" in your graduate together. Place a plate in your developing tray and gently pour the developer from your graduate over it. Metol works with great rapidity, and in from ten to twenty seconds you will see the image appear. When detail is well out all over the plate, remove it from the tray and, holding it to the light, look through



PHOTOGRAPHED FROM LIFE BY SARONY
NATURE'S MIRROR

it. You must remember that this is the negative, and that what is black here will be white in the print and the reverse. You must learn to judge the density of the negative by looking through it to the ruby light, remembering that the light is weak and that the negative loses—that is, loses some of its density—in fixing. A good rule is to develop until you cannot see the ruby light through the denser portions of the negative. For landscapes this will usually give crisp, brilliant results, but it would be too hard for portraiture.

If the negative has been correctly exposed, it will be fully developed in three to four minutes. When finished, rinse it thoroughly under the tap and place it in the fixing bath until about five minutes after all the milky whiteness disappears from the back of the plate.

(*To be continued.*)

THE CAMERA IN THE MISSION FIELD.

By REV. P. L. SPENCER.

An interesting addition to these Yale souvenirs was obtained in the form of a photograph of an old abandoned Cariboo waggon, which had done valuable service thirty years before in the time of the gold excitement in the Pacific Province. The vehicle, before its superannuation, had probably been drawn by mules or oxen many hundreds of miles over the built-up road that led, by the edge of precipices a thousand feet high, to the gold-diggings. The thought oc-

curred to me that it might still be utilized as an object of illustration in a sermon on the danger of riches. A photograph of the Anglican church, with its adjoining mission-house and pleasant surroundings of mountain-base and garden-plot, completed my manual work in this almost deserted village. At one time the head of river navigation and chief depot for miners' supplies, the place has sunk to the level of an ordinary C. P. R. rural station, its former large population having become literally *decimated*. The railway, in building up other places, has had the effect of pulling down this.

Between Yale and Vancouver one sees at intervals snow-capped Mount Baker, in Washington Territory, U.S., 60 miles to the south, "a beautiful isolated cone, rising 13,000 feet above the surface of the country." Being so purely white, and standing at so great a distance, it proves, however, in a photograph somewhat disappointing.

At last one reaches the terminus of the great transcontinental railway. Although a city young enough still to be in its teens, Vancouver contains some surprisingly fine buildings. One of these, the Opera House, shows that the people have plenty of spare money. The C.P.R. Hotel gives evidence of the power and prosperity of Canada's greatest railway corporation. That which interested me most, however, was a visit to a Chinese mission school. The time spent in it was necessarily short, as I had a lecture engagement for the same evening in another part of the city. I was able, nevertheless, to take away with me a memento of the visit in the form of a flash-light

impression of the assembly of earnest lads. I have cause to retain a very vivid mental photograph of the occasion, as in my haste to perform the mechanical part of the operation I inadvertently placed the thumb of my left hand *above* the metal plate containing the magnesium powder, while I applied the burning match to the fuse with the right hand. The result was the creation of a profound sensation and the production of a deep impression, but wholly upon myself. The physical suffering, however, was soon more than counterbalanced by the pleasurable feeling due to the development of the highly successful negative.

In the realm of natural scenery, I contented myself while in Vancouver with a view of the entrance to Stanley Park, in order to give friends in the East some notion of the magnificent proportions of those giants of the Pacific forests, the cedar and fir trees.

In Victoria, reached after a delightful trip of four hours across the salt water, I obtained a pleasing panorama view from the tower of the Anglican cathedral. A visit to Esquimalt (with the accent on the "qui") afforded the opportunity of capturing with the arts of peace two of Her Majesty's ships of war, the *Nymph* and the *Warspite*. Between the city and this noted naval station stand the barracks of the garrison of soldiers maintained by the Dominion Government. These buildings, with a battery of several cannon stationed in front—one of which roared out the mid-day salute as I stood on a rock on the opposite side of the inlet—received a shot from the photographic weapon.

A strange circumstance connected with this exposure was the taking of two sea-gulls as they gracefully glided, unperceived by the camerist, above the barracks and along the range of possible vision. Having satisfied the sentiments of loyalty and patriotism, I re-entered the city and explored the Chinese quarter.

The fine business house of Tai Yune & Co., that would grace any town having a white population, was added to the objects made to serve the purposes of the tourist, a group of Mongolians standing by and wondering at his movements. Later in the day a visit was paid to the interior of this building, and a very pleasant hour was spent with a large number of Chinese youths, who had assembled for the receiving of instruction in the American man's language and religion. A view taken on the occasion included Rev. E. F. Lipscombe, the chaplain. Five months afterwards a lantern-slide made from the negative was shown, along with other illustrations of this trip, in a parish in England in which Mr. Lipscombe had been a curate. This parish was visited in the ordinary course of the tour of the writer, who was not aware of the coincidence until certain exclamations were made by the rector when the scene was projected upon the sheet.

An excursion 70 miles north to Nanaimo, the coal city of the Pacific, brought my long journey to a termination. There I might have descended a coal-mine, but I was satisfied with a look into its dark depths. I enjoyed rowing, with a friend, over a stretch of salt water. In the town the most interesting object proved to be an old

historic building, which at one time was a bastion of a Hudson Bay fort. Probably this relic has endured for one hundred years. It is in a fair state of preservation, and is used for storing things of historic value connected with the settlement of the coast region. A view of St. Alban's church, a neat frame structure, to which is joined a parish school, afforded me one more opportunity of pressing the button. In the outskirts of the town might be seen the remnants of certain Indian tribes. Within the corporation there might be observed the evidences of the highest civilization. In the harbor appeared a small fleet of vessels waiting to be laden with the black nuggets. I think I duly appreciated my visit to Nanaimo.

In conclusion, I may say that I found the trip to the Pacific greatly conducive to health and to the acquisition of knowledge concerning the resources of the vast West and the condition of the Indians and the Chinese. I thus qualified myself for speaking in England on the two subjects, immigration and missions. The views I obtained during the journey assisted me largely in explaining matters connected with these subjects. I think the Dominion has room for many millions of Europe's energetic people, while the hundred thousand aborigines scattered over its immense area will at no very distant day be almost on a level with the white population in intelligence, industry and religious belief. I hold the opinion that the evangelization of the teeming millions of China will be appreciably advanced by the Christian influence of those of its citizens who have come

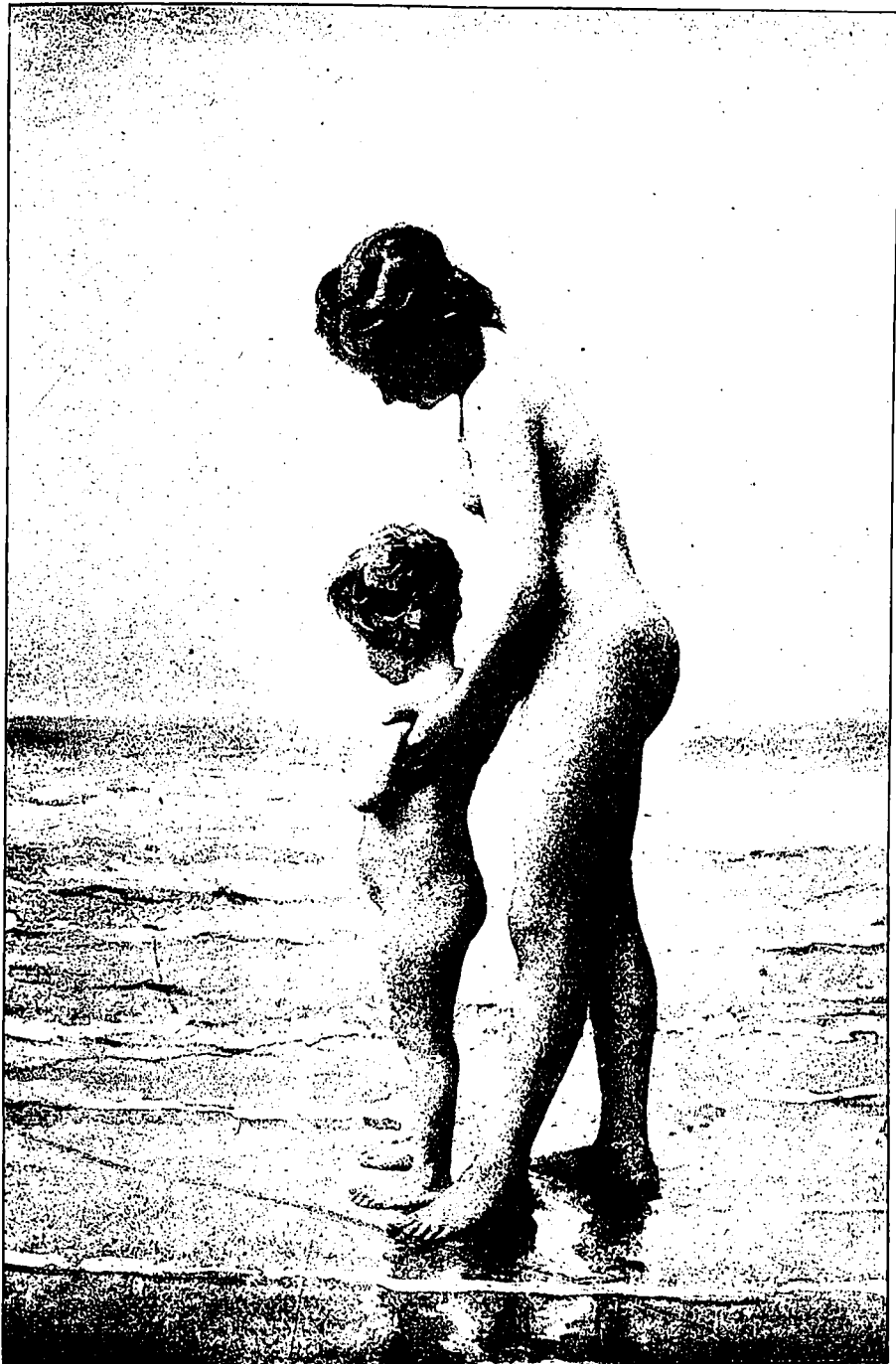
to Canada and returned to their own land carrying with them a knowledge of the Gospel.

THE NUDE IN PHOTOGRAPHY.

BY DR. HUGO ERICHSEN.

It is now generally conceded that photography is an art-science, and that it should be regarded from an artistic standpoint. Only such photographers are worthy of the name who combine an artistic sense, with technical ability; every one can acquire the knack of focussing a camera and developing a plate, but every one cannot compose a picture that will prove worthy of exhibition. In order to do this the photographer must be fully conversant with the proper relation of light and shade, tones, values and perspective. By taking up these studies he will gradually come to regard things from an artistic standpoint, and he will see beauty in much that he has hitherto passed by unobserved.

Why is it, if photography is an art, that the nude has hitherto been tabooed at photographic exhibitions? Nothing is more beautiful than the perfect human form, male or female, and there is no reason why that which is legitimate in other branches of art should not be permitted in photography. It is true that some studies of the nude, which would not excite comment in a painting, might possibly appear indecent in a photograph, but the committee selecting the photographs for an exhibition could easily exclude such as they deemed impro-



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SOFT PERSUASION

per. Much depends, too, upon the manner in which such photographs are finished; a glaze finish almost always makes them appear immodest, whereas a matt surface gives them an artistic appearance that will not shock the most prudish. The platinotype and bromide are also well adapted to this style of picture. I do not believe the lack of studies from the nude at the exhibitions is due to a scarcity of models, for they are plentiful in all cities where there are art schools, or where art is taught at all, for drawing from the nude human form is now regarded as essential to an art education as is the study of anatomy to a medical training. The reason that the nude has been conspicuous by its absence at public exhibitions is prudishness pure and simple. Amateurs were afraid that adverse criticism would be showered upon them, and hence confined the exhibition of nude studies to their most intimate friends. I need not point out, I think, that prints that circulate in such a manner are apt to be anything but proper, and I feel confident that such amateurs are as few in number as they are a disgrace to the divine art of Daguerre. But even the most prejudiced opponent of the nude in photography will admit that photographs that are intended for an exhibition open to all the public will be carefully scrutinized by the amateur before they leave his hands, and that, after undergoing a second examination at the hands of the selection committee, only such as are unobjectionable to the general public are likely to be placed on exhibition.

Drapery, when well managed, often

enhances the beauty of the human form divine. But, unless the amateur has made a study of the subject, he had better let it alone, as it takes a most refined taste to drape in a proper and effective manner. Warm water is often applied by means of a sponge to drapery to make it cling more closely to the body, thus defining the outline of the form. To the students of drapery the statues of Greece are invaluable, and as plaster casts of these abound in all the art museums of all large cities, there is no reason why amateur photographers should not become conversant with the proper manner of draping the human figure in such a way that it looks graceful and artistic.—*The Developer.*

NON-HALATION PLATES.

Editor CANADIAN PHOTO. JOURNAL:

In the June number of your valuable magazine, under the caption of "Notice Board," referring to non-halation plates, I read this mis-statement: "All other non-halation plates are produced by double coating, which, of course, increases the time of exposure."

Whatever truth there may be in this remark as far as it applies to other non-halation plates, it is without foundation in respect to Wuestner's Imperial Non-Halation Plates. These plates I have used almost since their first appearance; and I might say, in passing, that they were the first manufactured in America, and that all the other manufacturers followed in the lead of Wuestner—some with backing,

others with single-coating (so-called), etc. Now, only three days ago I tried some of these three-coated non-halation plates (one coating of which is ortho-cromatic) for instantaneous pictures. It was 3 p.m.; subject, a natural, in middle distance and under trees with heavy leaves; the distance, light; the exposure was the fiftieth of a second, with Bausch & Lomb shutter (that I won in your last competition); stop, f11; result, perfect. Shortly after, with the same kind of a light, I over-exposed a more open view with f16. Last February, 3 p.m., I got a perfect exposure on a snow scene, stop f22, color-screen and a two and a half seconds exposure. I might multiply; but the further statement that the Eagle non-halation plate is rapid enough to take instantaneous pictures up to the one-hundredth of a second will suffice to correct the assertion that three-coated plates are slow.

While I am on this subject will you permit me to say, in order to benefit some brother photographer (not in the interest of the manufacturer, with whom I have no acquaintance) that all of the plates made by the Eagle Dry Plate Co. I have found most excellent. I first used the old Forties; then the ordinary Orthos., which were followed by the Fifties (and these were all excellent); then the non-halation; and if there are any others manufactured in the world for every kind of work—even portraiture—I would like to find them, for I have tried every plate made in America, as far as I know, and Wuestner's are without a compeer.

Speaking of portraiture, while on my vacation last summer, a young

lady, in Greek costume, induced me to take her "pictur" standing indoors in a bay window, which was filled with climbing vines all over, except the panes of glass, through which the light of August just streamed. It was so dark, except outside, that I gave an exposure of one minute, f8, the lens pointing right straight at the white figure, dark leaves and brilliant sunlight. I used a non-halation plate.



PHOTOGRAPHED FROM LIFE BY SARONY

THE BUTTERFLY

I had no use for the picture; I took it to please a handsome young lady; but my principal concern was to find out what could be done with these plates. There was not a particle of halation in the resulting negative; every leaf was perfect in detail, and the full texture of the cheese-cloth Greek toga was brought out.

No ordinary exposure will over-expose these plates. The best results

are obtained with exposures that would be ruinous to an ordinary plate ; and yet they are so sensitive that "snaps" are as easily taken as on any other plate. The reason is this : they are coated on top with the most rapid portrait emulsion, I understand ; the next is a slower one, and the last like that of a lantern-slide plate in rapidity. So if you want "snaps," they are taken on the first ; if you take time-pictures, and you over-expose the first layer, the second arrests it ; and if the highlights go through both the first and the second before you get your shadows as you want them, the third coating takes care of them. Those that want to get game like the old hunters, with single barrels, may do so ; but I prefer a three-barrel gun, so I may use more than one if I miss with the first.

I didn't intend to call the attention of your readers to more than the one matter of rapidity in non-halation plates as made by Wuestner ; but I want to say just a word of his E. E. plates. They can be developed in boiling water ; consequently, they are not affected by this sultry, hot weather that we are now enjoying (?) ; no ice is necessary, no frilling. They are a boon to the hand-camera man especially, and they are just as fast as any.

Very truly,

FLOYD VAIL.

AIR BUBBLES IN JENA GLASS.

Communication from Schott & Gen., Jena (Germany), Manufacturers of Glass for Optical and other Scientific Purposes :

"The efforts of the opticians in the improvement of objectives in the

higher characteristics of optical results have in later years, particularly in photographic objectives, resulted in an increasing demand for such kinds of glasses which, in their optical properties and chemical composition, differ very considerably from the crown and flint formerly used, and the production of which presents far greater technical difficulties for the producer than the former current optical glass. Particularly does the majority of the kinds of glasses requisite in the construction of the improved photographic objectives, which have been recently introduced, offer unusual difficulties in the accomplishment of complete purity, that is, freedom from small air bubbles. The definite demands which are made upon these special glasses, varying from the ordinary materials in their conditions between refractive index and dispersive power, subject the chemical composition of the glass flux to such narrow limits that the technique of melting leaves no choice to bring about favorable conditions for the greatest possible purity. The result is that in such kinds of glass it becomes practically impossible regularly to produce pieces which are free from isolated small air bubbles.

"We must point out that the existence of such small air bubbles, even in the most unfavorable case, hardly reaches a loss of light amounting to one-fiftieth per cent., and, therefore, is entirely without influence on the optical result of a lens system.

"It is therefore apparently unreasonable to demand of the producer of optical glass that, to meet the increased demands of the optician in

reference to all the really important properties necessary for the function of the objectives, he should reject nine-tenths of the produced glass merely because it shows a defect, which in application is absolutely insignificant.

"If the purchaser, especially of photographic objectives, should, as has hitherto been customary, declare lenses with a few small air bubbles as 'faulty,' the optician will be constrained to explain that objectives of improved quality in optical results cannot be produced out of any crown and flint which may be selected at will, but only from such kinds of glass in the selection of which higher considerations than the presence of a few small air bubbles must be decisive.

SCHOTT & GEN."

DEVELOPING BROMIDE PRINTS.

By C. W. H. BLOOD.

As my experiments progress I find that I obtain more wonderful results, and it is now my full conviction that the combination of the most rapid developing agents, Metol-Hauff, with the slowest, Glycin-Hauff, represents a combination vastly superior to metol-hydroquinone, up to now so popular.

Dry-plate development is by the use of metol-glycin entirely under the control of the operator, and the result no longer depends on the developer, but on the man. The formula which I found to give the most perfect results with gelatine plates is the following:

One solution metol-glycin developer—

Metol..... 30 gr.
 Glycin..... 30 gr.
 Sulphite Soda Solution 10 oz.
 (at 30° Hydrometer Test.)
 Carb. Potass..... 10 oz.
 (at 20° Hydrometer Test.)
 Use equal parts developer and water.

Let it be understood that hot water must be used, and the metol-glycin added to the sulphite after it is dissolved, and the carb. potass. solution added to this, so that the carbonic acid gas which is created by the action of carb. potass. on metol may be set free.

The above developer will give quicker printing negatives and richer prints than any other, and by diluting to one-quarter strength will be found an excellent developer for bromide prints.

A two-solution developer permits even wider latitude in practice, and for those who prefer this method of working the following formula will be found useful :

A

Metol..... 30 gr.
 Sulphite Soda..... 5 oz.
 (at 30° Hydrometer Test.)
 Carb. Potass. Solution. 5 oz.
 (at 20° Hydrometer Test.)

B

Glycin..... 30 gr.
 Sulphite Soda..... 5 oz.
 (at 30° Hydrometer Test.)
 Carb. Potass. Solution.. 5 oz.
 (at 20° Hydrometer Test.)

For use add to each ounce of A and B two ounces of water.

With this formula density is entirely under the control of the operator. A controls detail and B density.



PANORAMIC VIEW OF HAMILTON

The above view was taken by Mr. Alf. H. Baker, a well-known amateur, of Hamilton. It is the prize picture in a competition for a gold medal offered for the best panoramic view of the city in sections, showing the mountain on both sides, a most difficult thing to do. Mr. Baker says, "Only those who have tried to construct a picture of this kind can fully realize the vast amount of labor and practice required to attain success. Even when the negatives are given the same exposure and developed at the same time it is almost impossible to get the exact uniform printing quality and other toning precisely the same, there is apt to be different qualities in the prints." Mr. Baker deserves great praise for his picture.

Experience has shown me that this formula will meet even the most fastidious taste, as it can be adapted to anything from instantaneous work to copying.

Care should be taken to have the sulphite solution hot; add metol and then the carb. potass. Unless these precautions are followed the developer will not keep any length of time; but if care is taken in its preparation the developer will keep forever.

The great error made by many experimenters with metol is their failure to secure density. As soon as the details of the subject are out they imagine development to be complete. This is not so. In developing a plate with metol, or metol-glycin, no attention must be paid to detail, as this will come of its own accord; but the density is the point by which the plate must be judged. If you will leave it in the solution until it has an opportunity of gaining the required density, you will, I am certain, adopt metol as your developer.

A freshly-made metol developer, after cooling, throws down a slight deposit, which should invariably be filtered out before using the solution. With the C. P. metol recently put upon the market this deposit is hardly noticeable. — *Wilson's Photographic Magazine.*

"YOU bet I know when to come in when it rains," remarked Mr. Weary Watkins, in the course of heated discussion. "It is a mighty good thing you do," retorted Mr. Hungry Higgins. "Ef you don't your name would be mud. Leastways, mostly mud."

OLD MASTERS BY CAMERA.

Recent developments in photography are contributing to the wonders of this wonderful age, from picturing microscopically objects too small to be seen by the human eye to making snap-shot pictures by telescope of objects fifty miles away.

A young woman has conceived the idea lately of making the camera add, in a new way, to the artistic pleasures of those whose opportunities of travel are limited, or whose means do not admit of their possessing the masterpieces of the world's collection of paintings, an exchange says.

Fraulein Antonie Stolle, of Boston, a young German lady who has for years made her home in this country, a devotee of art and an indefatigable amateur photographer, bethought her some months ago that if landscapes could be reproduced to the life by the aid of painted photographic lantern slides the same thing might be done for the great paintings of the world.

She had already a collection of some hundreds of slides made by herself, reproducing famous works of art, but only in black and white. She went at once to Europe, taught herself the art of coloring the slides, which she could find no one in this country or in Berlin or Paris able to do in connection with pictures. She had even to make her own colors for painting the slides, as none of those for sale was suitable for the purpose in hand.

The long and short of the story is, that Fraulein Stolle has made a great success of her unique undertaking, and will shortly return to this country

able to put before her audiences exact reproductions of the great paintings of the world, even to their color. The officials of the foreign galleries were inclined to treat Fraulein Stolle's idea of reproducing a Rubens on a bit of glass as a great impertinence, but so great has been her success that of late the directors of some of the most important European galleries have asked her to give lectures and show her pictures before invited audiences.

The pictures are first photographed upon glass, and then the picture is painted under a microscope, that every detail may be made so perfect the enlargement of many feet upon the screen will disclose no imperfections. The coloring Fraulein Stolle has done before the originals in each case, a long, slow and laborious process, and when one recalls that the galleries are unheated, such work in winter becomes doubly difficult, aside from any question of the art itself which the worker calls into play.

Of course Fraulein Stolle will have imitators, and it should not be long now before the art galleries of Europe are transferred almost, if not quite, bodily into the halls and lecture rooms of this country.

Colored photographs have nothing in common with this new development in photography. It is the minute painting upon the glass, which on the screen shows apparently actual form instead of a flat surface, and the exquisite coloring of the original, which makes Fraulein Stolle's inspiration so valuable.

Mr. Elmendorf, of New York, has done the same with his marvellous landscape pictures, and the Van

Brunts, of the same city have for three years been at work with flowers. Now come the masterpieces in painting, and somebody before long will probably hit upon producing life-like pictures of notable persons, snap-shot sketches of them in characteristic attitudes, pictured to the life, even to the color of their eyes.

WOMAN IN PHOTOGRAPHY.

A reporter who interviewed Sarony on the status of woman in professional photography, obtained the following interesting statement :

"There are not many women photographers, nor is there any good reason why women should not be excellent photographers. They must, of course, learn the business, like any one else, and the posing and lighting, being the finest artistic points, naturally require the greatest artistic aptitude. There are few really good photographers in the country. It requires great skill and constant application and must be closely followed up. It is, of course, conceded that women have a great deal of natural artistic talent, and if they once conclude to start out and become photographers, there is no doubt that they will succeed in it. The business pays well, and by its very nature seems to invite women, as there are no unpleasant features about it. The enthusiasm of amateur photographers shows the fascination it has for those who become interested in it. I have never known a single amateur photographer who took it up as a fad or as an amusement who ever willingly gave

it up, and I do not see why any one should fail to pursue it with equal ardour as a business, when the financial returns are so good, as a rule, with comparatively little risk of loss. We never teach any one in here. We require the finest talent ready for practical use that can be had in the country, and we would not, on any account, teach any one, although we have had persons come in here and offer generous sums to be instructed here. The operators, who do nearly all the mechanical work, are, of course, at the top. Next in order are the negative retouchers. This is fine, delicate work, well adapted to a woman, and they earn from \$15 to \$30 a week. The printers receive from \$12 to \$25 a week ; mounters, about \$7 to \$12 a week, and the spotters—those who remove blemishes—also from \$7 to \$12 a week. Certain artistic perceptions are indispensable to any one who would become a good photographer, or successfully manage any of these branches. Given these and application, there is nothing whatever in the way of women becoming very successful in this line within a few years."

ANSWERS TO CORRESPONDENTS.

"Fog."—Bromide acts very powerfully in a metol-hydroquinone developer. When a plate is known to be considerably over-exposed a few drops may be used.

A READER.—(1) By "squeegee" is meant the rolling or pressing of a print while wet on glass prepared with French chalk or on the ordinary Ferro-type plate. When dry the print peels off with a glace or highly-finished surface. (2) A slight washing before placing in toning bath would probably obviate the difficulty. (3) Yes, by squeegeeing as above.



"BIG INJUN."

Indian brave, Head-in-the-Air (over 6 ft.) of the Grippe Sacque Tribe. Big Indian, much travel. Sell heap photo stock. Keep much talk on *tap*. Heap good Injun (when a-sleep). Out - of - town readers who identify this warrior are entitled to a good cigar on his next trip.

We refer to Wilson's "Photographics," "Quarter Century in Photography," and "Cyclopædic Photography." Mr. Wilson publishes many books, but this great trio should be in the hands of every one really interested in our art.

The Eastman Kodak Company sends us a handsomely bound book catalogue entitled the *Eastman Products*. It is elegantly printed on heavy paper, and fully illustrated. As its name implies, it gives a full and complete list of the well-known line of goods made by this firm. An interesting price list is attached. Altogether it is the handsomest catalogue of the year.

BOOKS AND PUBLICATIONS.

Lantern Slides; How to Make and Color Them. By D. L. ELMENDORF. Published by E. & H. T. Anthony & Co., New York. Cloth, \$1.00.

This is one of the best handbooks on the lantern slide that we have yet seen. It is a very practical work on the making of slides, with a chapter on the coloring of slides that is instructive and interesting. The book is effectively bound in light-colored cloth, is well illustrated, and makes a desirable addition to the photographic library.

Edward L. Wilson, of New York, whom we all know as the editor and publisher of *Wilson's Photographic Magazine*, is the author and publisher of three books that are a liberal photographic education in themselves.

Messrs. Percy Lund & Co. have changed the name of their Booklet Series to *Popular Photographic Series*. The last addition to this series is No. 6, "The Camera and its Appurtenances," by H. J. L. J. Massé. Mr. Massé is a well-known writer, and it is sufficient to say that he has treated his subject in a manner thoroughly up to his usual standard.

The *Shashin Sowa*, one of our Japanese contemporaries, shows a progressive spirit by adding lately an English section which, with Prof. W. K. Burton's assistance, this journal intends making a feature hereafter.

Kodak News is the title of a snappy little eight page paper published by the Eastman Kodak Company, from their English house. No. 2, Vol. I., has just furnished us a few minutes' very interesting reading.

NOTICE BOARD.

A **Toronto Dealer** visited the Hayes gallery in Detroit lately, when on a western trip, and found Mr. Hayes so busy with gallery work and the business of his office of Secretary of the P. A. of A. that he could hardly take time to even talk of the coming convention. Mr. H. reports the outlook for a big attendance very promising. He also says that Canadians still persist in their attempt to decorate Detroit with the well known "Vermillion hue" when they come over.

Landon's O. K. Collodion Paper is now on the market, and Mr. Landon kindly offers to send a sample package to any address for the asking. The new factory is in full swing, and the sales of "O. K.," both Gelatine and Collodion, are steadily increasing. We have lately tried samples of the Collodion "O. K.," and were much pleased with results obtained. It prints quickly and easily tones to any desired tone.

Windsor Studios are evidently feeling the return of better times. Two of the leading studios have been considerably improved lately. Mr. Melville has added a neatly furnished reception room, with an attractive lady in attendance; and Murdoch Bros. have completely rebuilt their studio and now have one of the handsomest studios in the West.

We call the attention of our readers to two new announcements in our advertising pages this month, "Luxo" Flash Powder, manufactured by W. P. Buchanan of Philadelphia, and "Celestite" Paper, made by Jas. H. Smith of Chicago. A trial of either of these lines will show their worth.

Stanley Plates easily hold their own in the Battle of the Plates. The policy of the manufacturers has ever been to protect the consumer in every way possible, and this is duly appreciated, as is also the late reduction in price, which means a big saving to large users.

Sharpe, Eakin & Ferris report the receipt of a large order for photographic stock from Yokohama, Japan. This is their second order from Japan. Advertisers in the CANADIAN PHOTOGRAPHIC JOURNAL can expect business from the world.

Mr. H. Snowden Ward and his talented wife, co-editors of *The Photogram*, have been touring the States for the past few weeks, combining business with pleasure.

Wm. Farmer has opened again at his old stand, corner McNab and King streets, Hamilton. He has associated with him Mr. Seaton McCully, late of Toronto.

It is said that new life has been put into the "Star" Dry Plate Works of Hamilton, a new company having been formed to operate the factory.

Mr. J. A. Trussler, Hanover's well known artist, has sold his gallery to H. A. Ross, late of Brockville. Mr. Trussler is going to Duluth.

MONTREAL CAMERA CLUB.

There is very little to note about the Club rooms at present, as most of the members are out of town for the summer. The studio and dark rooms, however, are largely used during the daytime.

The special summer competition organized by the Committee is being well worked up by the members, and

it is pleasing to know that a large number of the younger members of the Club have decided to compete. The classes have been made to cover as much as possible, and as the rules are few in number a wide scope is given to the competitor.

A. W. COLE, *Sec.-Treas.*

[The printed schedule of classes and rules and regulations of the special summer competition is out. It shows ten interesting classes. The competition is confined to members only of the Club.—ED.]

TORONTO INDUSTRIAL EXHIBITION.—PHOTOGRAPHIC DEPARTMENT.

Class 120.—Photography—by Professionals. (Entrance Fee, 25 cents each entry.) Sec. 1. Portraits, collection of, plain, 1st, \$8; 2nd, \$4. Sec. 2. Portraits, collection of, colored, 1st, \$10; 2nd, \$6. Sec. 3. Enlarged Portrait, plain, 1st, \$4; 2nd, \$2. Sec. 4. Landscapes and Views, collection of, 1st, \$6; 2nd, \$4. Sec. 5. Enlargement, landscape or interior, 1st, \$4; 2nd, \$2. Sec. 6. Portrait, finished in black and white, 1st, \$8; 2nd, \$6. Sec. 7. Portraits, on porcelain, china or enamel, 1st, \$5; 2nd, \$3. Sec. 8. Best collective exhibit of photography, 1st, Silver Medal; 2nd, Bronze Medal. Sec. 9. Best collection illustrative of the various processes and progress of photography since its discovery, Diploma.

[In colored Photographs the name of the artist who colors, as well as the name of the photographer, and duplicate plain copies of exhibit, to be attached to all specimens.]

Class 121.—Photography—by Amateurs. (Entrance Fee, 25 cents each

entry.) The exhibits in this class must be amateur work throughout and the work of the exhibitor. Amateur photographers are to be understood as those who do not habitually sell or offer for sale their productions, and who have not at any time heretofore done so. Sec. 1. Best Six Landscapes, 1st, Silver Medal; 2nd, Bronze Medal. Sec. 2. Best Six Marine Views, 1st, Silver Medal; 2nd, Bronze Medal. Sec. 3. Best Three Portraits, 1st, Silver Medal; 2nd, Bronze Medal. Sec. 4. Best Three Interiors, 1st, Silver Medal; 2nd, Bronze Medal. Sec. 5. Best Three Genre Pictures, 1st, Silver Medal; 2nd, Bronze Medal. Sec. 6. Best Three Bromide Enlargements, over two diameters, 1st, Silver Medal; 2nd, Bronze Medal. Sec. 7. Best Six Lantern Slides, 1st, Silver Medal; 2nd, Bronze Medal. Sec. 8. Best general exhibit of amateur photography, Gold Medal.

Entries positively close Aug. 10th.

It is to be hoped that there will be at least fifty entries in each class.

EXAMINATION OF PHOTOGRAPHIC LENSES.

(Continued.)

Test for chromatic and spherical aberration.—A doublet should give a sharp image over a certain angle with its full aperture.

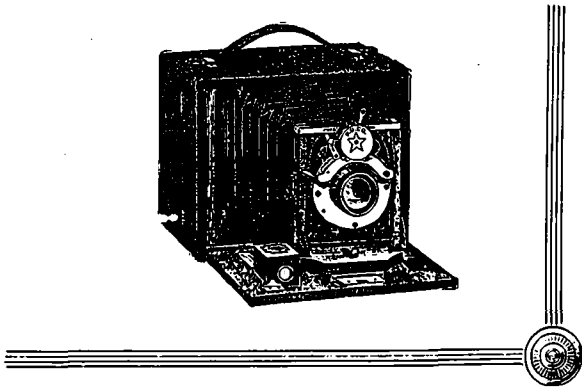
Two scales are used—such a rule, as one here, which should be new and clean, may serve the purpose; one is put up at right angles to the axis of lens, horizontally or vertically, the other at an incline of 45°, horizontally or vertically. The scales on rule must be well visible.

Put camera at a distance of five to six focal lengths; focus for the number on scales at which the two cross; see that on the inclined scale the same number of

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figures are distinct on either side of centre.

When sharply focussed, with a full aperture, expose a plate. When the same number that was focussed for is sharpest, there is no fault with regard to color correction. If a number is sharpest that is nearer than the centre, then there is chromatic aberration, the chemical light having a shorter focus than the visual, and the lens is under-corrected; in the contrary case, it is over-corrected. The over-correction will, as I have said, practically be a less serious fault than under-correction.

Now expose a second plate for a second test. For this purpose nothing is altered but the aperture—make sure that you are still sharp at the crossing point. Insert stop, say, $f/16$ in a rectilinear with an aperture of $f/8$. Expose; develop.

The centre should again be sharpest; if not, there is spherical aberration, because when a more distant point is sharp it proves that the axial rays have a longer focus than the marginal.

In the opposite case the spherical aberration is over-corrected.

Zeiss' (Dr. Rudolph's) focimeter.—This consists of a rail or rod in horizontal position, at right angles to the axis, on which are erected a number of sticks radially pointing toward the lens. On each of these are stuck some labels bearing letterpress or lines, and in such a manner that, seen from the lens, all are visible; thus some will be upright, others at angles of 45° and 90° from the upright position, or at 30° , 60° , and 90° . On these labels the corrections—spherical and chromatic, the depth of focus for each aperture, the curvature of field, the covering power with each stop—can be measured and tabled.

When focussed on central rod, and for central label, it is easily seen what the area of sharp definition amounts to in

both directions, vertically to the axis and parallel to it. You can judge of the curvature of field, find out whether chromatic and spherical aberration are properly corrected. Get at the general covering power, or even at the approximate amount of astigmatism. It is a good universal instrument, and it is specially suited to our purpose, as it represents a system of objects at different distances and in different angles to the axis of the lens.

Flatness of Field.—Having treated the aberration of the central rays, we now come to those lying at an angle to the axis. The theoretically perfect lens is supposed to give a perfectly flat image over the whole of the disc which it is able to light up of a flat object. No lens does this.

The rays falling obliquely come to focus on a curve, and we have to see that this curve is reasonably large to allow us to obtain sharp images over a sufficient size of plate. The theory teaches us that the principal plane in which the marginal rays are refracted must be more convex towards the object and concave towards the image, and that the diaphragm must be in the place where the axis of the oblique rays cuts the axis of the axial rays. These are the best conditions for a flat field. Some excellent lenses have rather round fields, and it is a question for the maker to decide how much correction he will introduce in order to flatten the field without introducing too much astigmatism.

Our task is not difficult. An ordinary camera will suffice. We put the camera on its stand, focus in the centre for our test object, and then rotate it, noticing the amount of rotation we can do, without throwing our object out of focus.

Again we turn to the instrument specially constructed for these tests, the "Tourniquet." Having lens in the right position, we take a luminous point, best our white silver ball. We focus sharply

(Continued on page xvi.)