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THE

CANADIAN PHOTOGRAPHIC JOURNAL.

DEVOTED TO THE INTERESTS OF THE PROFESSIONAL AND AMATEUR PHOTOGRAPHER.

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THE
Canadian Photographic Journal.

PUBLISHED MONTHLY AT

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GEORGE W. GILSON, - - EDITOR.

CONTENTS.

ONE DOLLAR PER YEAR.

A glance over the successful journals of the day is sufficient to show that the popular journals are the dollar journals; the popular magazine price is the dollar price.

We have seen this fact successfully demonstrated by other publishers, and we have verified it in the case of three other journals published by our own firm. In consequence of this, we have decided to reduce the price of the CANADIAN PHOTOGRAPHIC JOURNAL to $1.00 per year, ten cents per copy. While we are glad to give our readers the benefit of this reduction, we do not claim to be acting from purely philanthropic motives, for we fully expect to reap a full and substantial benefit from the change in price.

The success of our journal the past year has been most gratifying. Every month, without an exception, has seen a substantial addition to the subscription list, while the year shows subscriptions received from nearly

every known country in the world. As for advertising patronage, our pages speak for themselves.

Although the price for next year will be reduced one-half, the JOURNAL will be made better than ever, arrangements to that end being already concluded (or under way) with the leading writers in the photograph world. One important feature of this journal for next year will be the fact of its being the only photographic journal published giving a mounted, direct photograph in each issue. A number of new departments will be started, and another of our popular competitions given.

One dollar a year, ten cents a copy, is the price for 1896, positively in advance—a price that should put the name of everyone interested in photography in Canada on our list.

THE MONTH.

OUR photographic friends of India evidently labor under difficulties with a vengeance in pursuing their profession or fad, and one of the chief obstacles seems to be the annual "rains," which last for months. The dampness naturally accompanying them permeates every nook and corner, ruining plates, paper and instruments, right and left. The editor of the journal of the Photographic Society of India tells us that in order to preserve his cameras, plates and paper he has had a box made with a false bottom of perforated zinc. On this zinc shelf is placed his photographic effects, and under it is kept an old pie-dish containing a pound of chloride of calcium. Twice a week this dish comes out with the contents half liquid, is roasted over the fire, and goes back in again in calcined lumps.

* * *

SPEAKING of focussing lantern projections, the *British Journal* says that during a lantern exhibition at a camera club the intercourse frequently partakes of a "free-and-easy" character, and quips, jests and criticisms are often heard. The *British Journal* holds that it is good education for the budding lanternist to have his shortcomings unceremoniously pointed out, and, speaking particularly of the familiar cry, "Focus more sharply," suggests that the operator may escape being "called down," on this point at least, by using a light but powerful opera-glass, to be held in one hand while the other is engaged by the pinion and rack of the lens. For ordinary use, one having a magnifying power of about three diameters answers well.

* * *

DR. VON ARLT gives the following method for preparing yellow screens: An unexposed gelatine plate, or preferably a lantern plate made of thin plate-glass, is freed by its silver salts by placing it in an acid fixing-bath in a red light. After the plate has become perfectly clear and transparent, it is most carefully washed for several hours, and rinsed at the end of washing in distilled or filtered rain-water. It is then placed in a bath consisting of a 4 per cent. solution of bichromate of potash, to which a few drops

of pure glycerine have been added. The bichromate solution may be taken more concentrated up to 10 per cent. if a more intense tint is to be imparted to the screen; but the first solution will generally be sufficient if the plate is left in it for an hour by subdued light. It is then removed, rinsed and quickly dried.

* * *

THE manufacturers of "Sylvio," an English firm, after considerable experimenting, say they have conclusively proved that to insure absolute purity in the whites of printing out papers, permanency and absence of double tones with the combined bath, it is necessary that the prints, direct from the printing frame, should be passed in a thirty-grain solution to the ounce of sulphite of soda for ten minutes, thoroughly well washed and then toned in the combined bath. They say the addition of the sulphite direct to the toning bath is not admissible, as it at once stops all process of toning. They do not recommend the use of the sulphite when the sulphocyanide bath is used.

* * *

TWO of the greatest annual photographic exhibitions of the world are now being held in London. They are those of the Royal Photographic Society of Great Britain, at Pall Mall, and that of the Salon in the Dudley Gallery. From all accounts, we should infer that both are well patronized both by exhibitors and visitors. The Royal Photographic Society have a new feature this year in the shape of a handsome catalogue, profusely illustrated with reproductions of the leading pictures exhibited. The following analysis of the printing processes used at Pall Mall, as given by the *Amateur Photographer*, will prove interesting, as showing the leaning of our friends across the water:

	1893.	*1894.*	*1895.*
Platinum	113	171	180
Carbon	49	89	115
Gelatino-chloride	37	79	34
Collodio-chloride	..	..	2
Bromide	44	51	26
Silver	33	20	34
Albumen	..	..	1
Photogravure	4	15	21
Collotype	9	11	5
Half-tone	..	..	4

* * *

THE prize of 12,000 francs awarded every six years by the Paris Société de Encouragement to the author of the most useful discovery to French industries, has been awarded this year to Professor Lippmann for his method of color photography.

RESIDUES FOR FIXING BATHS.

No doubt we are well within the mark in saying that probably not one in twenty takes the trouble to collect the silver that is to be recovered from print washings and from the fixing baths, both negative and positive, although, as is frequently being pointed out, this economy is well worth practising. Fewer still, we imagine, even if they save the waste solutions, will themselves undertake the—to the unpractised hand—somewhat onerous task of reconverting the collected residues into a utilisable form namely, silver nitrate, since at the present day there are so few photographers, other than plate-makers and the makers of sensitive papers, who have any use at all for this once indispensable chemical. There are, however, still left a few experimentally inclined amongst both amateurs and

professionals, and some of these do, as we are well aware, still adhere to the old practice of reconverting their residues themselves.

Naturally, where this is done, the tendency arises to perform the work in the simplest and easiest manner possible, and, as a matter almost of course, the task of fusing the recovered metal is avoided as far as possible by those who are but little familiar with a process that is by no means easy in the absence of the necessary appliances for the purpose. The reduction of even a small quantity of silver in "an ordinary kitchen fire" is a far easier job on paper than it will be found in practice, and, though we have in years gone by "run down" many an ounce of the precious metal with no more elaborate furnace than that mentioned, we are not at all surprised at the reluctance shown by others in following the plan.

There are, however, several alternative methods of reducing the silver by means of what is known as the wet method, in which either the solutions are made to yield up their contents in the metallic conditions in one operation, or the precipitated chloride is further heated to bring it into that condition. So far as the carrying out of either of these plans is concerned, there can scarcely be said to exist any difficulty whatever, unless it can be in the latter case some uncertainty as to when the conversion process is complete. In fact, the reactions are so apparently simple and easy that no thought is given as to the character and purity of the final result. As we are constantly seeing and hearing these wet methods put forward as being so much easier and practically as perfect in result as the more troublesome crucible process, we think it well to say a few words in the direction of indicating the weak points, and of showing how it is quite possible the final products may be wholly unfitted for photographic use.

First, let us deal with the wet treatment of precipitated chloride of silver. This is usually performed by submitting the mass of moist chloride to the action of scraps of metallic zinc, iron, or copper, in the presence of dilute acid—usually sulphuric or hydrochloric. The choice of metal is quite immaterial, except in the case of copper, on the score of expense, although, perhaps, this metal, on account of its greater freedom from impurities, gives the cleanest reduction, and often less risk of the introduction of complications. In this process the reducing action is set up by the acid attacking the metal, which leads to the evolution of hydrogen gas, and this in turn attacks the chloride of silver, combining with its chlorine to form hydrochloric acid, the silver being left on the metallic slate in a black powder. The process thus becomes a continuous and, practically, automatic one, for, as one portion of acid is exhausted in attacking the zinc or other metal, a fresh portion is liberated to carry on the work; and so, if sufficient time be allowed for the completion of the process, we have at the finish a mass of reduced silver, together with the undissolved zinc, and a salt of the latter metal *plus* free acid in solution.

The first difficulty that will meet the novice at this work will be the imperfect reduction of the chloride. At first the action proceeds vigorously, and with great effervescence, and in a short time the mass of previously white chloride becomes perfectly black. It is well stirred up in order to bring every portion of the chloride into contact with the escaping hydrogen, and soon all action appears to cease, and this, coupled with the uniform blackening of the chloride, leads to the assumption that the process is finished. The silver is collected, freed from the excess of zinc, carefully washed and treated with sulphuric acid, to remove any particles of zinc that may be mixed with it, and finally, when considered perfectly clean, is treated with nitric acid, to convert it into nitrate, only, however, to discover that a very large proportion of the chloride remains unreduced, its color being masked by that of the reduced metal. The remedy for this simple difficulty is obvious; portions of the mass should be tested from time to time until it is found to be completely soluble in nitric acid, and not until then should the reduction be considered complete. Even when these tests are applied, it will often turn out that the solution in nitric acid is imperfect, and that a cloudiness remains after the acid has ceased to act. This means, in the first place, that a certain portion of the chloride has still escaped reduction; but it further means that, since chloride of silver is appreciably soluble in hot acid solution of the nitrate, a large quantity of it has been dissolved, and that the resulting solution is not one of pure nitrate of silver, but a nitro-chloride or chloro-nitrate. Whether such a double salt would act injuriously if used, say, for sensitising paper, we are not prepared to say, but the corresponding iodo-nitrate was formerly supposed to possess highly objectionable properties in connection with the negative bath.

But even supposing the reduction of the chloride to have been practically complete, and the residue most carefully washed and to have dissolved perfectly in the nitric acid, it is yet by no means certain that the product is pure silver nitrate, or, rather, it should be said, that it is certain that it is not. The researches of Stas and Boettger have shown that it is in the highest degree difficult to eliminate the last traces of the base metal from silver reduced by the wet method, even though the residue may be subsequently fused, and these chemists therefore recommend, for the purpose of obtaining silver of the highest degree of purity, the method of reduction with an alkali and a glucoside, a process that is quite as easy while much freer from objection.

It is not to be supposed that the quantity of impurity introduced in this manner is very considerable; but in the case of copper or iron it might easily be sufficient to interfere with the integrity of printing results if the nitrate were employed for that purpose. In the case of zinc, from the known impurity of the ordinary samples, there would be the additional risk of the formation of silver sulphide along with the reduced metal, the effect of which will be referred to presently. Traces of iron

in combination with the silver could, we may easily imagine, give rise to the formation of insoluble compounds which would, sooner or later, impair the purity of the whites of any prints made with the contaminated nitrate, while copper salts introduced into the prints in the same manner would undoubtedly exercise a deleterious action, not only upon the finer gradations of the printed image, but also on the tone. How far these evils would be felt in practice would, of course, depend upon the amount of care exercised in the reducing process, which we are assuming to have been undertaken in the belief that little or no care is necessary.

The alternative method already mentioned is, in our opinion, much to be preferred. It consists in boiling the reduced chloride with an alkali, preferably caustic, in the presence of sugar, honey, or even gelatine, since the combined action of the heat and alkali converts the gelatine into the condition necessary for reduction. Caustic potash alone will convert the chloride into oxide of silver, in which state it is as easily converted into nitrate as the metal, but the addition of the glucoside not only hastens the process, but proves more economical. In following this plan there is no danger of metallic complications, and the after-treatment necessary is confined to the thorough removal of the excess of alkali and organic matter.

In conclusion, we shall allude to the most objectionable of all forms of reduction, namely, the treatment of hypo solutions containing silver with zinc or iron to throw down the metallic silver direct. This plan was relinquished as untrustworthy a quarter of a century ago, but is constantly cropping up afresh, having been mentioned only a week or two back. We cannot do better than point to the inevitable result of its adoption in place of reduction in the crucible, that is to say, when the reduced metal is to be redissolved in nitric acid. Commercial zinc, or zinc scraps especially, are far from representing the pure metal, and this material, when acted upon by acids, gives off anything but pure hydrogen. Moreover, when immersed in hypo solution, it is not difficult to detect by the smell that either from decomposition of the solution itself, or from impurities in the metal, or probably both, there is a copious formation of sulphuretted hydrogen, the effect of which, in the presence of silver in solution, is to be imagined. The treatment of a spent fixing bath with zinc, in fact, throws down a mixture of metallic silver and sulphide, which, if the reduced mass is to be subsequently fused, is a matter of no moment; but if it be washed and redissolved in nitric acid, sulphide of silver being soluble in hot nitric acid, a result is obtained that can in no sense be considered satisfactory. An attempt we made in this direction many years ago resulted in a solution as yellow as saffron, and, even after repeated crystallizations, the salt still retained a strong yellow tinge, and was quite unfit even for printing purposes.

Those who intend to operate their own residues will therefore do well to bear these facts in mind.—*British Journal of Photography.*

THE OUTSIDE SPECIMEN DISPLAY AS A BUSINESS PERSUADER.

Excepting less than half a dozen instances in New York and London, says John A. Tennant, in *Wilson's Magazine*, the world's photographers are agreed that the display of specimen pictures at the doors of their establishments is a matter of business necessity. Consequently the photographer's first thought, when once he has settled upon his location, is to get out an attractive display of specimens to draw the attention of the public to his gallery. At this time the photographer regards the matter from a practical and rational standpoint. He is not only sure that a display is necessary, but he also realizes that the better and more attractive his display so much the more business may be expected to result from it.

Too often, however, when once a business is known and established, this important detail of display is neglected. This is especially true with reference to galleries in the smaller towns. In many cases, I might also say in the majority of country galleries, the outside display would seem to be regarded as a necessary evil. It is always there—in evidence—but so often allowed to grow stale and unprofitable that its usefulness as a persuader of business is wholly lost. This should not be; the photographer should never forget that his outside display of work is one of his most valuable advertisements, seen, as it is, by a large proportion of those from whom he hopes to secure business. A poor display is as effective against the photographer's interests as a good display is in his favor. Good work always attracts; bad work, or a neglected display of fading photographs repels. By proper attention to this detail the average photographer can keep the public eye always focussed upon his gallery, from which, it is needless to say, considerable business will result in due season. This can be done by arranging, first, that the display be as large as space will permit; second, by making it attractive at every point, either in arrangement or novelty of subjects; and, third, by keeping the subjects constantly changed.

To secure as large a display as is possible, it will be necessary to use a show-window wherever this is available. Supposing that a window can be had which gives a space of 10 by 12 feet for display purposes, the placing of large plate-glass mirrors at either end, perfectly at right angles to the display ground, will apparently extend the display to almost three times its real proportion. It is true that this device only duplicates the display, but it serves to attract attention, and for this reason alone is well worth its cost. Where only an entrance hall with the usual stair-case leading to the gallery is available, the sides of the hall and stairway should be lined with permanent showcases having hinged doors, so that the inside display may be arranged or changed in sections at will. When such a display is arranged in loose frames of large size, the inconvenience of removing the frames bodily and

changing their contents serves as an excuse for their neglect.

By renting attractive spaces in the public halls, railroad waiting-rooms, news and art stores of his town, the photographer may extend his display facilities with great advantage, often at a very slight cost. I am well aware that the providing of an attractive display of specimens is a matter of considerable difficulty to the photographer in the smaller cities. This difficulty arises not only from the scarcity of good material, but quite as often because the photographer feels that his work is not sufficiently attractive or persuasive to justify extensive display. These two stumbling blocks may be removed by the exercise of a little right thinking and enterprise. Every locality has some material for good specimen work, and if it does not come to the photographer in the way of legitimate business, the advertisement value of his display is sufficient justification for seeking his subjects out and persuading them to be photographed for this purpose, payment being provided for in copies of the pictures secured. Or the scarcity of material may be provided for in another way. It is essential, chiefly, that the attention of the public be secured. This can be done by making a display of pictures of any sort, gathered from various sources. The facilities of the particular gallery so advertised can be made known by sandwiching in with such a display a few good specimens showing the work of the photographer making the display. To illustrate this idea: Let the photographer make a display at one time of specimen platinotype prints, with a brief account of the advantages of this method of portraiture. These specimens may be obtained commercially, and may be either actual photographs or copies of paintings, etc. The insertion here and there of work made at the home gallery will serve the purpose of directing attention to the gallery itself. As a matter of honor, no photographer will attempt to deceive the public into the belief that all the work, shown as I have suggested, is his own. There is no need for deception; the end desired is to attract attention to the desirability of being photographed, and, as a final end, to the facilities of the photographer who provides the display. And if a photographer in Portland, Ore., can secure for his show-frames a display of work by leading Eastern photographers, he need not fear to give credit to the artists whose work he uses, inasmuch as its display can neither hurt them at such a distance nor injure his own interest.

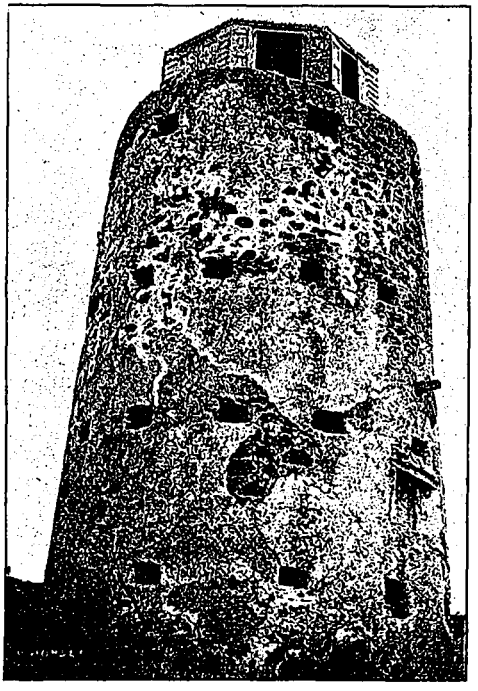
Another interesting display could be made of specimens of natural color photography, photogravures, and collotypes, all of which are readily obtainable, or a display of bromide prints, small enlargements in finished and unfinished stages, and in various tones, could be made to serve the desired purpose of advertising the usefulness of the photographer's art. Similarly, displays of portraits in oils or pastel or water-color pieces could be utilized. The great thing should be to secure and keep the public interest; this attained, the photographer can easily draw attention to his own work and equipment for this or that specialty.

There are one or two points about

the arrangement of outside displays which are worthy of mention. During the summer months, when the sun is high and the streets unbearably heated, the photographer should see that his display is abundantly shaded and protected by awnings. This will not only keep the display from damage and fading, but will also provide a shady nook for passers-by, who will naturally accept its relief, and incidentally give attention to the display made for their instruction and pleasure. If the photographer's entrance allows sufficient space for a substantial rustic chair for the accommodation of ladies, so much the better for his business.

Of course, all this presupposes that the display frames are well ventilated, so that the subjects may be examined with pleasure in wet or dry weather, and that the entrance to the gallery is kept clean and well furnished so as to offer an attractive prospect. This is another detail which is too often left neglected.

Regarding the changing of the subjects which make up the specimen display, there is only one thing to be said. The outside display should be changed at least once a month, or where subjects are available once every week. The public should never be permitted to see in a photographer's display anything which will encourage the opinion that the beauties of photography are evanescent. This necessarily entails an amount of work, but it is of the utmost importance and well deserves the strictest attention.



BLACK BEARD'S CASTLE

CHARLOTTE AMALIA, ST. THOMAS, WEST INDIES

Photo by J. Haydn Horsey, Toronto

Finally, there is a method of displaying specimens for the attraction of the general public, which has not yet been given sufficient application. I mean the display of photographs at night. This may be accomplished by providing suitable electric or gas-lighting arrangements where the display is placed in a show-window. Such a display stands in bold relief when near-by business places are closed, requires attention only to turn on and off the illumination at the proper time, and in a location properly adapted for it is a very effective persuader of business. In some instances the projection of good portrait work, interspersed with views of sub-

jects of general or humorous interest, by means of the optical lantern, will, where such an arrangement is available, prove a good method of attracting public attention to the business of the photographer.

Verbum sap.

DR. JOLY'S EXPERIMENTS IN COLOR PHOTOGRAPHY.

At the recent soiree of the Royal Society, Dr. Joly's transparencies created great interest from the fact that they were rendered in the colors of the original. The *Times* gives the following particulars of the method adopted:

The operation involved in the new method is as follows: A transparent glass plate, which, on first inspection, appears to bear a uniform tint and to possess a somewhat silky texture, is placed in front of the sensitive film and in contact with it, when the latter is exposed in the camera. Examination of this plate with a strong lens or microscope shows that it is not homogeneous, but is closely lined over with fine transparent lines of three different colors succeeding each other regularly over and over again and in close juxtaposition. The plates shown at the Royal Society were divided to a fineness of two hundred lines to the inch. This is not sufficiently fine to obviate in some cases a linear texture visible on near inspection of the picture ultimately obtained. A fineness of three hundred lines to the inch practically accomplishes this, as was demonstrated on a photograph of a group of wall-flowers.

The plate which has been exposed under this screen is developed in the usual manner. The result obtained we may regard as embodying in the single minutely-divided linear image all three separate pictures required in the practice of the methods of composite photography already alluded to, each produced by a special color-selective action. Although possessing this triple character, the negative differs little in appearance from the ordinary negative, or a positive, subsequently obtained, from the ordinary positive or transparency. The exposure in the camera is, of course, somewhat longer, for it is evident that, whatever principles are employed, only visible light can be utilized in obtaining a photograph in natural colors, and of this a part is stopped by the ruled screen. Hence a well-lit landscape may take from three to five seconds, with fairly open stock and rapid lens.

Of course, neither the negative nor positive so far obtained shows any color. But if now a plate, ruled in three tints, which again are chosen according to color-vision theory, is correctly applied to the positive, and if we hold the combined glasses to the light, there is obtained the appearance of the original image as a brilliant transparency in natural colors.

The choice of the tints upon the two screens is based upon the now old hypothesis that all our color sensations, of however varied and subtle tints, are referrable to the action, single or combined, of but three sensations (fundamental sensations, as they are designated), transmitted to

the brain by the color-sensitive nerves of the retina. Such an hypothesis, if true, implies evidently that any one sensation must be excited by a considerable range of wave lengths; for otherwise that band of light, the spectrum, wherein the several wave lengths composing white light are, as it were, sorted out and arranged according to wave length, would appeal to the eye only in the red, green, and violet; intermediate wave lengths, if not competent to excite the primary sensations in the nerves, remaining, of course, invisible. The sensation which we term yellow, excited at a particular part of the spectrum situated between the red and the green, is, in short, explained as a resultant sensation arising from a simultaneous excitation of both the red and green transmitting nerves of the retina. Carrying this idea still further, physicists have, by measurements carried out upon normal as well as color-blind vision, succeeded in determining the relative degrees of stimulation experienced by each of the three several color-sensitive nerves, supposing these separately exposed to stimulation by the various wave lengths of the spectrum, or, in other words, by the different visible wave lengths of nature. In Dr. Joly's pictures the curves embodying Koenig's measurements are taken as the basis of the color principles employed. It is sufficient to add that the particular tints chosen for the three lines upon the taking screen are such as will transmit those wave-lengths which excite severally the three fundamental sensations and transmit them in the same degree as they excite those sensations. In fact, the portion of the sensitive plate underlying a "red" taking line is excited or acted on by the light rays in a degree proportionate to the degree in which the nerve itself would have been excited to transmit a sensation of redness if exposed to this minute portion of the image. And similarly the green and violet taking lines are more or less transparent to light rays, as these are more or less competent to excite green or red sensation. Tints that will act in this way bear to the eye, exercising its triple apparatus of color vision, an orange-yellow, a greenish-yellow, and a blue-violet color. These, then, are the tints repeated over and over again upon the taking screen.

Opacity upon the negative being interpreted as transparency upon the positive, it results that a deep red object, for example, will be crossed by transparent lines upon those parts of the positive image which interpret the action of the "red" taking line in the negative image. The green and violet lines, on the other hand, will be all represented in the image as opaque areas, for their action, when the negative is being taken, will be to stop all dark red light reaching the plate, such rays not exciting green or violet sensation.

The operation of placing the ruled cover glass upon the positive is not correctly accomplished when each of the three fundamental colors upon it lies against a linear area which records the selective action of the taking screen for that particular color sensation.

In the case supposed, a red line

will cover a clear space, whereas the blue and violet lines will be blocked out. Hence the final result will be the red coloration of the image. In general two lines will act, as the green and red to produce yellow, or the violet and green to produce blue. Or, again, a pure white object upon the final picture will, when examined by a lens, show the three lines, red, green, and blue acting with equal brightness; thus, although neither white, yellow, blue, pink, nor brown, etc., exists upon the covering screen, all these finally appear correctly as they existed in the color of the original object.

The procedure, in fact, is one in which the three fundamental colors are impartially supplied by the covering screen ; but the previous experience of the sensitive plate during exposure is such as insures the positive plate selecting amongst these colors according to the original colors of the image.

It is in this manner that the inability of physicists to find a sensitive substance which itself will faithfully adopt and keep the colors of the image, is surmounted.

Were such a substance indeed forthcoming, it could not more faithfully reproduce the true colors of nature.

And this leads us to remark that the particular nature of this procedure, resulting in a complete independence of the almost inevitable ultimate fading of pigments, is of no small moment, more especially in the scientific registration of color. For it is seen that the color register is really carried in the silver deposit on the negative or positive, which may, with ordinary care in the photographic manipulation, be rendered quite permanent. And a fading of the tints on the covering screen may at any time be made good by applying a fresh screen. Copies, too, of a picture may be multiplied to any extent.

So far as this new departure concerns the amateur, it is to be presumed that the labor of preparing the screens will not fall to him. His part in obtaining a photograph in natural color will consist in exposing an isochromatic dry plate beneath the ruled screen ; and consequently, temporarily or permanently, applying the ruled cover glass. This is an easy operation. Indeed, a very little practice enables one to do this so readily that it is quite possible to run through a series of lantern plates at an exhibition with the aid of but one covering screen, adjusting and temporarily clamping it over each plate before it is put into the lantern.

QUICK WORK.

Editor CANADIAN PHOTO. JOURNAL :

SIR,—Here is something which we think will interest your readers, and which we would call "Some of the possibilities of Velox paper." One of the prominent photographers of the South (U.S.) writes : "Concerning the rapidity of Velox, it may interest you to know that about a month ago a friend of ours was to be married, and we were disappointed in getting a certain wedding present for her. On the morning of the wedding day

something had to be devised, so I got up a water-color cover to a souvenir with orange blossoms, etc., and had a print of the church and officiating minister, also one of the music the Choral Club (of which I am director) sang for a march. At three o'clock I made an exposure on the altar decorations, developed, dried without alcohol or heat, printed on Velox, toned, washed, dried, was interrupted and delayed over half an hour, mounted, burnished, put the print in its place in the souvenir, wrapped it up neatly, and the porter left the studio at 6.15; the ceremony was at 8. Impossible without Velox. I am going to try Velox on a wet negative."

Here is another instance: Some time ago a manufacturer had to have a photograph of his building the same day. This factory was in the country, and he was unable to find a professional photographer who could come up to do the job. He consequently addressed himself to one of his friends who is an amateur photographer, but unfortunately this friend had no films nor dry plates. All that was left for him was some Bromide paper and Velox paper. He put the Bromide paper in his plate-holder instead of a dry plate, made his exposure, developed right away, fixed, washed two or three minutes in order to remove the excess of hypo, took this wet paper negative, squeezed it in contact with a piece of Velox paper, which had been immersed in water before in order to prevent it sticking to the paper negative, then exposed for about fifty seconds to diffused light, and was able in this way to have half a dozen pictures of the factory entirely finished within three-quarters of an hour after the paper negative was developed. The fact that the paper negative was wet rendered it more transparent, and in this way no detail was lost.

Very truly yours,

NEPERA CHEMICAL CO.

A PLEA FOR CARBON.*

By GEORGE STECKEL.

This association brings together at its annual convention photographers from all parts of the country, some with new and valuable ideas to propound, some who can show the perfection attained by skilful manipulation of established processes, and yet again others whose purpose is to learn, to widen their views and acquire inspiration for future progress, but all anxious to elevate the standard of their art and to further professional interests thereby. The committee on instructive work recognized the importance of permanency in drawing up a syllabus of papers to be read before you, but unfortunately the gentleman who has to handle this subject is unable to be with us, and lest it should be neglected I have been bold enough to venture to say a few words on the importance of carbon printing to the professional photographer and to urge reasons why he should use it as a printing process.

Carbon printing is not a new thing. Practically speaking it was perfected

*Read before the members of the P. A. of A. at Detroit.

years ago, but in the struggle for cheap and seemingly simple processes it has been wofully neglected. But to-day I look upon it as the one way out of the dismal swamp in which photographers are laboring. To begin with, it reproduces in the positive all the beautiful and delicate details of the negative such as cannot be rendered by any other medium, and herein it at once discriminates the skilful worker from the mere mechanic, for in most other processes much of the fine quality of the negative is lost. In the second place, look at its simplicity. It is not over-burdened by numerous manipulations and solutions, and one is free from the worry of watching to see that everything is just right. Last of all, it is permanent, and if a proper support be selected for the pigment image the original freshness and brilliancy of the print will be preserved almost indefinitely.

This last point I consider highly important to the professional photographer. As we know by sad experience, the career of a successful photographer is frequently a short one, and after long consideration of the point I am inclined to believe this brevity is due to a cause unsuspected by many, and yet obviously simple.

An ordinary photographic print, no matter how carefully it has been handled at every stage, loses its freshness in the course of a few years, and a more recent one in no way superior to it originally will attract the average person, simply on account of its brilliancy due to its newness. Seeing the two side by side he will jump to the conclusion that it is an evidence of better work and will patronize the maker of the new one rather than the other. A young photographer, you thus see, can successfully compete against an old-established business, provided he has ordinary ability, simply because he has no old work to rise up against him.

If my judgment be right, it behoves the established photographer who wishes to continue to be prosperous to so print his work that when old it will compare favorably in freshness and brilliancy with that of any new competitor. For such a purpose carbon cannot be excelled, as it will be the same years hence as it is to-day. This fact alone will add to his reputation and consequently profit, and he will successfully compete with and easily outlive in a business way any younger rival who pins his faith to modern and fugitive processes. May we not also hope that his faithful devotion to honest work will bring fame as an additional award to make more palatable the hard-earned bread of life.

Answers to Correspondents.

J. L., Calgary.—List sent you by mail.

RETOUCHING.—A subscriber wants the address of some party doing retouching for the trade.

"SNAPSHOT."—Try this developer:

Hydroquinone	1 oz.
Sulphite soda	4 oz.
Water to	80 oz.
Carbonate potash	3 oz.

Just before using add to each two ounces of developer one grain Metol.

J. S. H.—Your bath is far too strong. One ounce solution to six ounces water would be about right.

LANTERN SLIDE-MAKING.*

By SURGEON-MAJOR J. L. VAN GEYZEL.

AM not here to-night to tell you anything new on this subject; indeed, it would be as difficult for anyone to say anything new about lantern-slide making as it would be to communicate anything original about negative-making or bromide printing. I was asked if I would show how to make a lantern slide, and I promised I would undertake the task. In doing so, however, I will proceed as if lantern slide-making were new to all of you; in this way those who have had little or no experience in the matter may be benefited, while I am sure that other members will endeavor to bear this infliction with patience. In the first place, let me dispose of the question of Choice of Lantern Plate. I have no experience of wet collodion plates at all, but slides produced on them are, of course, remarkable for their brilliancy. There is on the market a dry collodion plate (Hill Norris) for those who prefer collodion to gelatine films. The gelatine dry plate, as manufactured at the present day, is an article of great perfection, quite easy to manipulate, and capable of yielding first-class results. This is all that is wanted of any lantern plate. I say this, knowing fully that there is still great diversity of opinion as to the best process for the production of slides: collodio, bromide, albumen, wet process, etc.; but having seen the slides of the different experts, one cannot help concluding that, after all, it is not so much the process as the worker that has much to do with the question. For my own part I have tried several popular brands, and there is not very much to choose between them. I have had my choice all the same, and I now invariably use it and no other. To others I would say: as for negatives so for lantern plates, to get the best results stick to one brand of plate.

The most suitable negatives for production of lantern slides are those which are full of detail, not over-dense in the high lights, with a good range of tone, and free from hardness. I show you such a negative, and will now put the slides made from it through the lantern. That some density as well as range of tone and detail is needed, the next slide and its negative will convince you. This latter negative is a very fine one, and it has yielded more than one medalled print, but it just lacks one of the qualities necessary to produce a first-class slide. If anything, the latter is the better negative of the two; of the slides, the former undoubtedly. From a suitable negative you can, of course, make a good slide (provided development of the slide is correct); but there is scarcely a negative so bad that a decent enough slide cannot be got from it by intelligent modification of the exposure and the development. Thin or weak negatives should be

* A demonstration given before the Amateur Photographic Society of Madras.

printed by short exposure and a developer stronger in the developing agent, while hard negatives, with strong contrasts, are better printed by full exposure and a weaker developer. The correction of defects arising from errors in this respect I will touch upon later on.

There are two methods of printing lantern slides—(*a*) Through the camera, (*b*) by direct printing. In the former method the negative is placed in front of the lens, and the image is received upon the sensitive plate placed in the dark slide; in the latter method the sensitive plate is placed in contact with the film side of the negative, which is printed by exposure to daylight or to artificial light. The first method is generally adopted when enlargement or reduction is necessary. As the most common necessity is to reduce a large picture to the lantern plate size, the method through the camera is generally spoken of as the method by reduction, and this I will show you first.

THE CAMERA METHOD.—There are reducing or enlarging apparatus sold by various makers, and they are more or less handy. But one can do with very little in the way of apparatus, and the essential parts can be constructed by any native carpenter. I show you what I work with. Two dealwood planks each 5 ft. by 8 in. are nailed down upon two cross-pieces so as to form a bench, the planks being separated by a slot about ¾ in. wide. This bench is placed on a table, and pointed skywards by placing a box under the further end of it. On the bench is the reducing apparatus which consists of a box, to hold the negative and the camera. The negative holder is only a small dealwood box, without a front and a square opening cut in its back. Behind this opening the negative is placed in a grooved slide, the interior of the box being blackened to prevent reflection of light. The negative is placed film side towards the lens, and upside down to facilitate focussing. No light should be allowed to come through the clear glass edges of the negative, the rebate edges of the opening in the box should cover these clear glass margins, which should otherwise be previously blocked out by pasting black paper on the glass side of the negative. If this precaution is not taken, considerable amount of halation will spread over the margins of the slide. The negative holder can be fixed to the bench by a screw with wing nut, which travels along the slot, and so permits of alteration of the distance of the negative from the lens. The camera is fixed by its own screw to the bench, with the lens pointing at the negative. My own camera does not permit of sufficiently long extension, and so I have been obliged to add body to it. I have done this by making a pair of bellows out of common brown paper lined with black cloth, the bellows being glued to a front and back upright frame. The sliding front of my camera with the lens is removed and slid into the front frame, while the back frame of the new bellows slides into the front of my camera. In this simple way I have a camera on the working bench which permits of all the extension that I require for reduction from whole-plate to lantern size, with a 10 in. R.R. lens. The bench is ruled with

IN BOTANIC GARDENS — COOLIES — ROPE TREE, IN BOTANIC GARDENS

Photo by J. Haydn Horsey, Toronto

PORT OF SPAIN, TRINIDAD, WEST INDIES

parallel lines ½ in. apart, so that the negative, when in the holder, and the ground-glass can be placed practically parallel. The negative box may require raising or lowering in order to centre the lens as correctly as possible. These preliminary matters being arranged, the distance between the lens and the negative is adjusted so as to reduce or enlarge the image on the ground-glass, which should be previously ruled so that the position of the image may exactly occupy the position of the lantern plate when in the dark slide.

The image is next carefully focussed, using the full aperture of the lens and a magnifying glass, the dark slide which should be fitted with a carrier to hold the lantern plate is next introduced, a piece of ground glass is placed behind the negative, and the requisite exposure is given, and here comes the first pitfall. There is absolutely no certain rule of exposure which can be laid down for a beginner—it must vary with the light, with the density of the negative (which I find is the most important factor of all), and the rapidity of the plate.

DIRECT PRINTING METHOD.—No apparatus is required here, beyond a printing frame; and the method consists in placing the lantern plate on the negative, film to film, and printing in the usual way. This method is not necessarily confined to printing from quarter-plates, for portions of larger negatives may be printed and often make very good pictures. For this purpose special printing frames have been designed; but in such a case a mask cut out of black paper to fit the portion to be printed is all that is required.

Even when printing from quarter-plates it is necessary to mask the portions which are not under the lantern plate, by strips of black paper; otherwise light enters at these parts and through the exposed edges of the plate, causing fog. A piece of black cloth or paper should be put next the plate, before the pads of the printing frame are put on, otherwise halation is apt to arise by reflection of light from the white pads of the printing frame. For the exposure daylight may be used; but, as for bromide printing, this method is not so certain as by using artifical light. I always use a kerosene light; one wick of a Hink's double burner, which is turned full up just short of smoking, with a clear glass chimney. Using the same brand of plate as before, I find that a negative of average density requires an exposure of 20 sec. at a distance of 2 ft. from the light. I show you negatives, however, which require exposures from 5 sec. up to 60 sec.

Whether the slide has been printed through the camera or by reduction, the image is latent and must be developed. There is, however, in the market a lantern plate on which the image is apparent during printing. I showed a Paget printing-out plate, during the process of printing, at a previous meeting; and I now show you some slides on these plates, through the lantern. These plates require no development; they are toned and fixed like ordinary silver prints.

(To be continued.)

METHOD IN PHOTOGRAPHY.*

By WM. F. MILLER.

THERE is no vocation under the sun wherein system is such a necessary factor of success as it is in photography. The very art is based upon chemistry, which is a science of fixed laws. Allied to this we have all the details of a commercial venture, which must be conducted upon strict principles in order to attain its proper aim. As a counterfoil to these we have the artistic end of the line, which is an enemy of both the others—for the artist is ever a dreamer, either too good for this earth, if his art has demoralized him, or too far above it if the art within him is really true for him to descend to the plain of his fellowmen. With these conflicting points I shall not deal, but rather confine myself to the subject of method in our business, and by presenting certain facts bring about a realization of the importance of conducting every branch of it upon a systematic basis. If there is any one thing more than another that the public is interested in it is a pretty picture. Hence, the first aim of every photographer should be to use method in the display at the entrance to his gallery, changing it frequently and placing his very best work where it will catch the eyes of the passers-by. No one can estimate the trade that such exhibits would ultimately bring in, or how many vacillating souls might be converted thereby. Yet, in the face of such sound argument have I frequently seen prints so yellow that they might be used as a substitute for saffron in a dye-house. Once before I alluded to this same subject, and a very estimable gentleman, whose friendship I value highly, saw me enter his gallery shortly afterwards, and at once exclaimed : "I suppose you noticed my show case as you came upstairs, and saw the prints were not changed? Really, I meant to have changed them the very next day, but business prevented." Had I spoken out what I thought I might have asked if that exhibit had not prevented business, but I didn't have the heart to say it. The best way to keep customers away from a gallery is to have a dirty entrance. I really never could understand why the average photographer uses so little method in his cleanliness. With stairs that have not seen soap and water for months, grimy sidewalks, that even an Indian would be afraid to touch, it is no wonder that people draw the line between such places and the ones that are conducted properly. When I see a neat show case and a clean entrance, I know what to expect when I get up stairs—and I am very seldom disappointed. There will be nicely framed pictures on the wall, the curtains will be white, the windows clean, the show case polished. There will be no holes in the carpet for you to stumble over, or if there are, a nice

*Read at the Ohio Convention.

rug will cover all that, and at small expense too. When I strike the reverse I always expect to find a room with a big piece of the ceiling knocked out, or else the proprietor either wearing a soiled collar, or else in possession of a pair of pyro-stained hands that must offer a very pretty contrast to the pictures he hands out to his lady customers. First impressions are very apt to be lasting ones, and hence I cannot too strongly emphasize this point of cleanliness in the reception room, for it is an index to the whole establishment. I never saw a photographer yet who would not almost faint if he had his dinner served upon an unwashed breakfast plate; and yet there are hundreds of galleries throughout our land to-day which have been presenting for years the same dirty floors, mouldy walls and dust-stained ceilings, while their owners are wondering why the public is no longer interested in them.

Were I conducting a gallery it would be so clean that I could and would escort favored customers through it—and thus utilize it not only as a place of business, but as an educator as well. Method in the treatment of customers is also of the utmost importance in every gallery. It does not do to discriminate in a crowd, and make the man you salute with "Hello, Bill!" feel as if he were a welcome guest, while the stranger receives the punctilious bow and the cut and dried, "What can I do for *you*, sir?" It is, of course, not every day that one gets a crowd in these times, but "golden days are approaching," to quote the words of a very good friend of mine. To revert, true courtesy will always receive its reward, and ladies ever demand and are entitled to respect and attention. We all know of the little lock of hair that always shows in the wrong place and makes a resitting necessary. It is useless to fight against that little lock of hair and tell the sitter that it was there when the picture was taken—which it really was. Better make one negative over again than lose perhaps two new customers that a single satisfied one would bring.

There are so many methods used in the conduct of our business, and of so many divers aims and tendencies, that they are sufficient for an article in themselves.

Flattery, that most insiduous of all persuaders, plays a not unimportant part in the game, and can truthfully be proclaimed as the most hazardous ground ever trodden by any photographer. Ill temper will drive away more customers than anything else, while broken promises mean sure death. To succeed, one must ever strive to win the confidence of his patrons precisely the same as any good business firm holds *its* trade.

Thus, I've always wondered what a certain photographer was going to do to extricate himself, when a little girl entered that gallery while I was there, and returning a proof, said: "Mamma says the likeness is very good, but when you make the pictures please have the face turned the other way." The man said he would, and he lives in my own State, too!

Under the skylight it is very necessary to be so pleasant that every sitter will feel at home at once. You

cannot make good pictures of people who look dissatisfied, frightened or constrained. In an old gallery I once saw the photographer conduct a stout, old lady into the operating room, bid her be seated, and then make a wild lunge for her with both hands just as she was about to sit down. I thought for the moment the man was actuated by a sudden frenzy of love for the stout, old lady. The next second I heard him say: "I beg your pardon, I forgot to tell you that one of the legs of that chair is split, and that you must be careful when you sit down." And she *was* careful, I can assure you. But I have always been anxious to see a finished picture of her, in order that I might note her expression. As a foil to this, I leave to your imagination the expression on the face of a prominent Indiana photographer, who had succeeded, after a deal of persuasion, in getting a certain Hebrew merchant to have a combination picture made of his little boy. He was just emerging from his dark room with his plate-holder, when he overheard the old man say to his son: "For the love of God, Ikey, don't move! Dose pictures cost your fadder nine dollars a dozen! Stand still, my child, stand still!" The boy never moved, and *that* picture certainly was a success.

The operating room should always have enough in it to make it attractive. A few framed prints, a large plant or two that certainly would flourish there almost unheeded, a few odd rugs and comfortable chairs, would add an artistic air of refinement that could not but be appreciated by the stranger, and commented upon afterwards as a most desirable innovation. The day is past when a photographer can excite astonishment and win his reputation by tumbling down a soap box, throwing a mouldy tarpaulin over it, and placing the innocent child therein, produce a picture of papa's first and best, seated on a real rock. In plain English, make away with the trash that defiles so many galleries and is such an eyesore to every one who gazes upon these prehistoric relics. Burn them up, cut them up, do what you will, only get rid of them.

When you enter the dark room of many establishments you must prepare for surprises. The funniest part of it all is, that you never know from whence these surprises are to come, or just exactly of what they are to consist. Thus I remember a certain party who once asked me to turn to the right as I entered his dark room, and I did so with most disastrous results. There happened to be an old camera there, for what purpose I never *could* quite understand, on the other side a collection of old boxes and large negatives. Where I couldn't kick holes in the boxes, I certainly succeeded with the negatives, and I have money to wager that the camera had to have a new bellows before it could ever again be of any practical use. The whole trouble arose from the fact that when that photographer said "turn to the right" he really meant "turn to the left," but I wasn't a mind reader in those days.

A dark room should be just as respectable and orderly as a recep-

tion room, and there is no reason why it should ever be different. As this necessary adjunct of our business or profession is usually the first place to which any person in the same line is conducted, I can truthfully say, I have simply been astounded at the conglomeration of articles I have seen in them, ranging from old shoes and cast-off clothing, into tin cans, empty bottles, chemicals in bottles, chemicals in bulk, chemicals lying loose, chemicals on the floor, and in every other place where they ought not to be, and so on into liniments, cough medicines, and yea, even into the amber-colored fluid with which some photographers are wont to toy, but which I've always been afraid to touch in those places for fear it might be an old pyro-stock solution. Really there is no excuse for all this. Method is as absolutely necessary in the dark room as elsewhere. There is always some nook or corner where the stock of chemicals can be neatly stored, properly labeled and ready for use. The dark room is no place for them ; all you need there is what is absolutely necessary to develop and fix your plates with, and nothing more save the plates you use. Even these latter should be limited in quantity, so as to be just sufficient for one's needs, for no plate on earth was ever made or ever will be made that will stand the damp, humid air of such a place as that in which you would not work a second were it not impossible for you to evade.

When we enter the printing room we are simply appalled with what we usually behold. The floor is littered up with old paper, negatives are piled around in reckless confusion, and in a manner not only absolutely devoid of system, but with an utter disregard of the fact that dust does not usually improve them ; printing frames surround you on all sides, right and left, top and bottom, some are clean, but not often—others so grimy and dirty that they give you the horrors to touch them.

I have in my mind's eye a certain gallery in New England where the printing room is ever devoid of a scrap of paper or a spoiled print. Really, now, isn't it less trouble to throw the scraps into some receptacle and thus get rid of them at once, than to cast them on the floor, and then have to devote good time to sweeping them up again? As plates come to the photographer packed in nice, clean boxes, why should they not go back again into the same containers when they are finished? If they survived time in that condition where in an unfinished state would they not keep indefinitely when chemistry had completed its allotted task?

In every branch of our business we need method, and in none to a greater extent than in the matter of economy. More money can be wasted in a gallery than is ever made. I have gone the length and breadth of this land and seen thousands of card mounts that never saw a print, yet are useless. Where the waste is elsewhere, even imagination stops. In large establishments the money needed to employ a regular stock clerk, who would be held accountable for his trust, would pay a golden interest. On the other hand, the smaller man who cannot

afford a dollar or two for the wood necessary for a closet would better get out of the profession, for he can never hope to succeed in it when he is wasteful.

Method is what we want everywhere. Photography is branching out into side-lines, gift enterprises, even babies' days, so that we can hope to expect from present indications, something like: "On Monday, special drives in Paris panels—better value for the money than ever before offered." While I'm strictly in favor of confining the business within its legitimate bounds, I cannot but admire the enterprise of a Nova Scotia photographer who advertises: "Babies reduced to two dollars per dozen!" What we want is method. Work should be turned out when promised. Cloudy days will ever come, but they have never yet arrived with the precision that photographers lay claim to.

Let the business be methodical, work it on the same basis as other businesses are conducted, and the rain will be in the shape of something tangible. What we want is method!

RE THE EXCHANGE CLUB.

Editor CANADIAN PHOTO. JOURNAL:

SIR,—Will you kindly allow me a few lines in the JOURNAL to call attention to the Exchange Club, as proposed at the recent Convention? The members present seemed to take hold of the idea as though they intended to "push it along." I was elected secretary, and it was agreed that all parties who were willing to go into such a club should send to my address within one month six cabinet photos, together with 80c. to defray cost of printing, books, etc. The time has expired, and up to the present I have only received one application. I have thought it best to extend the time another month, in the hope that a circle of at least ten can be formed. If at the end of that time there are not enough applications to make a commencement, I shall return what photos and money I have received and conclude that the photographers of Canada do not want to have an Exchange Club for mutual benefit. However, I hope to hear from a goodly number in the near future.

Yours truly,

A. M. CUNNINGHAM.

Hamilton, Oct. 24th, 1895.

Editor CANADIAN PHOTO. JOURNAL:

SIR,—I see that you have misspelled my name on page 250 (September number) of the JOURNAL. Please correct this, as there is a photographer in the city named "Beale."

Yours truly,

ARTHUR BEALES.

75 Carlton Street,
Toronto, October 18th, 1895.

[We take pleasure in making the correction.]—ED.

GOERZ DOUBLE ANASTIGMATS.

Mr. C. P. Goerz, 52 Union Square, New York, informs us that he has arranged to furnish his celebrated Double Anastigmats directly to Canada, at German prices, from the factory. In regard to those now popular lenses, Meisenbach, Riffarth & Co., the well-known German lithographers, say:

"We had occasion to test two Double Anastigmats of Series IV., viz., No. 6 of 30 cm = 12 in. focus, and No. 9 of 6 cm = 24 in. focus.

"With No. 6 of 30 cm = 12 in. focus we reproduced writing on a wet collodion plate 35 × 45 cm — 14 × 18 in. at 1 : 18, with an exposure of 45 seconds. The plate was covered up to the extreme edges with the sharpness of an engraving.

"With the Double Anastigmat No. 9, of 60 cm = 24 in. focus we reproduced writing on a wet collodion plate 70 × 100 cm = 28 × 40 in. The definition was with stop f : 25 faultless up to the corners. These results, indeed, surprised us. For in order to obtain similar results with the lenses of corresponding foci, as hitherto supplied by eminent opticians, we were compelled to stop the lenses down to at least f : 80, *i.e.*, we had to expose about fifteen times as long. The plates 70 × 100 cm = 28 × 40 in. we should, even with this amount of stopping, not have succeeded in covering with sufficient sharpness.

"The Double Anastigmat, No. 9, had a particularly brilliant opportunity afforded it of showing its capabilities in the reproduction of a steel engraving of the Sixtinian Madonna. Even with our largest lens we had hitherto been unable, even with the smallest stop, to obtain that very high degree of sharpness which we desired, whereas with the Double Anastigmat No. 9 used at f : 60 we obtained complete success.

"Our opinion of the merits of the new Double Anastigmats is that they by far surpass the older types of lenses in point of rapidity and definition, and we feel bound to describe them as most excellent instruments."

MR. W. H. JACKSON'S WORLD TOUR.

Mr. Jackson writes from Shanghai, China, to the Eastman Kodak Company as follows: The photographic part of the outfit of the World's Transportation Commission has been provided on a generous scale. Besides my own—a whole plate camera —we have your No. 5 Folding and No. 4 Junior. These have been handled almost exclusively by Mr. Winchell and Mr. Street, who up to the present time have used over a hundred rolls of your films. These have been exposed under very great climatic extremes; Northern Africa, Egypt, India, from the hot plains of the South to the extreme cold of the mountains on the Northwest frontier, Burma, Siam, and then the still more trying climate of the Straits Settlements. Somewhat better conditions obtained for a while in Australia and

New Zealand, but only to throw us into China and Japan in the hottest months of the whole year, and when the air was loaded with moisture almost to saturation.

I am pleased to state on behalf of the Eastman outfits that they have not failed us in a single instance so far as the cameras and the quality of the films are concerned. Nearly all the exposures have been developed en route, using your developing powders, and under very trying conditions in weather, water and accommodations; and while this has been done by amateurs with but limited experience, yet the results have been quite uniformally good. The dated film with its time limit seems to be an almost absolute safeguard. We have been using some, however, which are two months over time, showing but little if any deterioration.

We are all very much pleased with the results obtained from the Kodaks, and certainly have no reason to regret having made them a very considerable part of our photographic impedimenta.

NEW PUBLICATIONS.

Platinotype: Its Preparation and Manipulation. By CAPT. W. DE W. ABNEY and LYONEL CLARK. The Scovill and Adams Co., New York.

This book constitutes No. 52 of the Scovill Photographic Series. It proves to be one of the most complete and instructive works on Platinotype yet published. Fully illustrated and complete in the description of the printing with salts of platinum, it will prove a very valuable addition to the worker's library. Publisher's price, $1.25.

The Photo-Gravure Process. By HENRY R. BLANEY. The Scovill and Adams Co., New York. No. 51 of the Scovill Photographic Series.

This, the only book on the subject published in this country, is a very complete and practical book on this interesting subject, written by one who is admitted to be an expert. It contains a handsome photo-gravure frontispiece. The book should certainly be in the hands of all who are interested in process photography. Publisher's price—in paper, 50 cents; in cloth, $1.

The A, B, C of Retouching. By ANDREW YOUNG. Percy Lund & Co., London, Eng.

This very complete and most helpful little book is No. 6 of the Popular Photographic Series, and is uniform in size with its predecessors. It is well illustrated with examples of work, and a guide to the anatomy of expression. It will be found a great help to those who wish to practice retouching. This popular series is published at the very moderate price of 6d. (English price), a price that brings them within the reach of all, and *all* should have them.

Burton's Manual of Photography. By W. K. BURTON. Percy Lund & Co., London, Eng.

The announcement of a book of this nature from the pen of W. K. Burton should be sufficient in itself to exhaust a first edition. It proves

to be all that would naturally be expected from this practical and well-known writer; and in saying this we feel that all that's necessary is said in its favor. The English price is one shilling.

The Journal and Proceedings of the Hamilton Association for session of 1894-5 is received. The reports and papers of the different sections incorporated in the association are given, among them being those of the Hamilton Camera Club.

The Studio, an illustrated magazine of fine and applied art, published at 5 Henrietta Street, London, W.C., is one of the most artistic publications of the age. A feature that should be of great interest to our photographic exhibitors is the series of monthly competitions given by this journal with reproductions of winning pictures and valuable prizes. We notice that with the October number the *Studio* will be permanently enlarged by the addition of many pages and supplemental illustrations. The price will be increased to one shilling per copy. To those artistically inclined we strongly recommend the *Studio*.

NOTICE BOARD.

"The Buffalo Express" is now holding its annual amateur photographic competition. The *Express* has done more towards the encouragement of amateur photography than any newspaper in the country, and it fully deserves the support of every one interested in the advancement of "better photography." Our Canadian workers have always been well represented in the *Express* competitions, and we hope this year will be no exception. Besides the generous prizes offered, the Buffalo *Express* pays for all the pictures that they reproduce during the year, and which are selected from the photos entered in these competitions. Be sure to enter in one of the classes, and send your entries early.

R. H. Moran, one of the best known photo stock dealers in New York City, and whose bargain lists are, or should be, familiar to all of our readers, has, on account of increasing business, removed to larger quarters at 22 East 16th Street, one door west of Union Square. Canadian visitors will find a warm welcome at the new store. (N.B. Send for Moran's bargain list No. 45, just out.)

Wm. H. Ran, 1324 Chestnut Street, Philadelphia, is probably one of the best lantern-slide makers of the world, and is probably well-known by reputation to most of our readers. An idea of the stock of lanterns carried by Mr. Ran may be imagined from the fact that it takes a 250 page catalogue to describe them. Most of his slides are from negatives made by him during several trips around the world, and during the time he has been official photographer to a number of the leading railroads of the States. Those desiring special slides or sets of slides will do well to correspond with Mr. Ran, or send for

his catalogue. We take pleasure in calling the attention of our readers to Mr. Ran's announcement in our advertising columns.

A Perfect Factory. We lately had the pleasure of going through the extensive paper factory of the N. Y. Aristo Co. at Bloomfield, New Jersey. Everything here is done on a mammoth scale and with machinery of the latest build. Mr. Noble, who is Secretary of this company, as well as of the Ilo Company, gives every detail of the manufacture of the popular "N. Y." and "Albuma" brands of paper his personal attention, ably assisted by Mr. Cassett. While the Brothers Werthum (well known to our Canadian artists) attend to the sales department of New York State and the East—which part of the country they claim to *own*. The Ilo factory at New Brighton is practically under the same management, and here everything is done on the same extensive scale, and with the same idea that the best of everything is none too good to be used in the make up of their printing papers.

"Luxo" Powder will probably play a considerable part in photographic work this winter. Its success in the States has been marvelous. "Luxo" has been an important factor in the growth of the Flashlight Machine.

The Nepera Chemical Co. at Nepera Park, N. Y., have one of the most complete factories for the manufacture of sensitized papers in existence. The company are fortunate in having a member at the head of affairs with the business ability of Mr. Jacobi, and such a clever chemist in command of the experimental and manufacturing departments as Dr. Baekeland. The Bromide papers made by this company are very popular, and their new "Velox" paper by its extreme rapidity and ease of manipulation by *development* is astonishing and pleasing all who try it.

Mr. George Eastman, of the Eastman Kodak Co., has just returned from England—a combined business and pleasure trip. We understand that the pleasure part consisted of a two weeks' tour of England on a bicycle. If his English factory is as busy as the one at Rochester, he should have been well pleased, for the latter, we understand, is running full force, and barely able to keep up with orders.

THE TORONTO CAMERA CLUB.

The recent repairs and alterations in the club rooms have been completed, and the rooms are now open for the use of the members. The accommodation now includes large entertainment hall; library and reading room; studio, with special dark room and dressing room attached; daylight and electric light enlarging apparatus; large dark room, with four stalls; work and locker room.

Members are particularly requested to assist the Executive in maintaining the rooms in their present state of order and cleanliness.

Owing to our increased expenses,

the Executive would be glad if members would kindly make an effort to bring in at least one new member.

Friday evening, September 27th, A. F. Hewitt and C. W. Earle, representing the Nepera Chemical Co., gave a practical demonstration on the working of Bromide paper and Velox paper. Some fifty members were present and greatly enjoyed the interesting demonstrations given by these gentlemen. A hearty vote of thanks was tendered Messrs. Hewitt and Earle by President King on behalf of the club for their instructive demonstrations.

On Monday evening, October 14th, the newly enlarged and refitted club rooms were formally opened with a house-warming. The event proved most enjoyable. A large number of visitors were present.

THE HAMILTON CAMERA CLUB.

The members of the Hamilton Photo Club have been on the war-path during the summer season, and the secretary is assured by some of the tourists who have been sporting their figures at the Catskills and other well-known haunts, that good things are in store for winter entertainments.

The prize winners of last year's Club competition have been vigilant, and their success has stimulated renewed energy. Some of the new members have contracted photographic fever of pronounced type. They are now in the hands of their friends, who prescribe effectual remedies, such as "Keep your head cool," "Don't mix your developers," Avoid "that tired feeling" with a free and liberal application of soda and its co-relative associate, in case of special requirement under trying circumstances.

The members of our Club have been sorely grieved by the accidental drowning of Mr. Walter Chapman on Tuesday, 3rd inst. He contracted cramps while bathing. On the shore were found his clothing and camera. He was a diligent student, a faithful and obedient son, and a valued member of the Camera Club and Hamilton Association. We all regret his loss.

MONTREAL CAMERA CLUB.

The opening meeting of the season was held at the club rooms on Tuesday evening, October 1st, and was largely attended by the members and their friends. After the regular business was disposed of, the Rev. W. S. Barnes gave a very interesting and instructive talk on "Masters and Masterpieces in Art," which was illustrated by lantern views shown with an electric lantern. The speaker described briefly the main points of the pictures as they were shown on the screen, and showed that while some of the paintings lost part of their beauty when shown in black and white, there were a great many that could be studied and appreciated by the aid of photography and the lantern.

It was decided to keep the summer competition open a short time longer as some of the members were not quite ready with their work.

A. W. COLE, *Hon. Sec.*

October 8, 1895.

DEVELOPING BROMIDE PRINTS.

C. W. H. Blood, in *Wilson's Photographic Magazine*, writes: "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 (at 30° hydrometer test.)	10 oz.
Carb. potass. (at 20° hydrometer test.)	10 oz.

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 carbonate potass. solution added to this, so that the carbonic acid gas which is created by the action of carbonate potassium on metol may be set free.

"The above developer will give quicker printing negatives and richer prints than any other, and by diluting to 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 (at 30° hydrometer test.)	5 oz.
Carb. potass. solution (at 20° hydrometer test.)	5 oz.

B

Glycin	30 gr.
Sulphite soda (at 30° hydrometer test.)	5 oz.
Carb. potass. solution (at 20° hydrometer test.)	5 oz.

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. 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 carbonate potassium. 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 for ever.

"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 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."

A RETOUCHING Medium recommended by S. Herbert Fry is as follows:

Resin.....360 grains.
Gum Dammar..... 70 "
Spirits of Turpentine. 4 ounces.

It is important to get a good quality of turpentine, so that when the mixture is rubbed upon the negative the turpentine will evaporate and leave the gum set firmly on the film.

A CHEAP AND EFFECTIVE NEGATIVE VARNISH.—

White hard varnish..1 pint.
Wood Alcohol.....1 "
Castor Oil .....30 minims.
Oil of Lavender....30 "

TONING BATH FOR OPAL PICTURES.—

Ammonium Sulphocyanide..... 15 grains.
Gold Chloride ..... 1 grain.
Water..... 10 ounces.

This, which may also be used for gelatino-chloride paper, gives delicate images with pure whites.