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THE *May Review of Reviews* has a hard-hitting article by Mr. Welford, on "A Corner in Medals." He asks the question, "For what purpose do our present societies exist?" and gives two answers, one of them taken from the usual prospectus of such societies, giving their reason for existing as being to further the art of science in photography, to encourage and promote the practice of photography among members and to promote the best interests of photography. The other answer, taken by Mr. Welford from his personal knowledge of the outcome of three exhibitions of a large society, is best expressed in his own words, which will certainly make some whom "the cap

fits" squirm: "We have heard much in the past as to the 'medal craze,' and in the multiplication of awards, prizes, certificates, medals, etc., the ordinary every-day society plays a prominent part. As our American friends would put it, some of our society exhibitions and competitions are 'corners' in medals. Most of the awards are foregone conclusions, or gifts for certain members. If, however, that only took place now and then, it would not matter so much; but where a profusion of awards are offered year after year, and are carried off by the same men each time, I consider that society a nice, quiet, comfortable corner from which to extract annually a sweet little collection of medals and prizes. Whether competitions are advantageous to societies or otherwise I shall not deal with, but when these competitions are held time after time, probably organized by the actual winners, with the result of merely increasing the award stock of three or four members, then I confidently assert that they are not for the benefit of the society generally, but for the aggrandisement of a few. Curiously enough, too, these few

are generally officials to whom is due the continuance of the competitions. They organize and carry out the entire business—including the awards.”

Mr. Welford then gives the following figures to prove his case, taken from the society spoken of, having a membership of 200. The average number of exhibitors for the three years was but thirty-nine, with prizes awarded as follows :

	Officials.	Ordinary Members.
First year	12	4
Second year	14	4
Third year	14	6

We quite agree with Mr. Welford that this is taking care of “number one” with “a vengeance,” even to the entire exclusion of the above-mentioned “to further,” “to encourage” and “to promote.” There is more “truth than poetry” in Mr. Welford’s article.

Our Prize Articles.

IN our fifty-dollar article contest we have received several papers on the second subject, “Focusing,” but none on the first, “The Camera and How to Use It.” This was the subject for publication in this issue. As none have been received, we will begin with subject No. 2, “Focusing” —prize paper to be published in July— and give out the subject for the next month, which is “Development of the Exposed Plate.” This subject should bring out a number of writers, and is given now for that reason. Send in your papers.

The Maddox Fund.

THE fund for Dr. Maddox has been closed. The amount handed the doctor was, we hear, about \$2,000, and proved no doubt a welcome donation and a very pleasing one to the doctor, as showing the appreciation of his labors for the cause of photography by his fellow-workers.

Working Aristo.

WE have had several requests for a good article on working Aristo paper. The following, from the pen of one of the most successful users of Aristo, will be of interest to all our readers:

One of the leading problems with the professional photographer at the present time is the manipulation of the various so-called Aristo papers, not only in this country, but throughout the civilized world. The name Aristo-type is taken from the Greek *Aristos* (best) and *typos* (type), and was given to this paper by Dr. Liesegang, of Dusseldorf, Germany. These papers consist of two kinds, viz., the original Aristo, where the paper is coated with a collodion emulsion, or, in other words, a collodio-citro-chloride paper, and the more modern and by far the most popular brand, which is coated with a gelatine-chloride emulsion. This difference should be carefully noted by those using these papers, as the favorite formulas for working the former will entirely destroy the latter. Gelatine-chloride is rapidly coming into favor with the profession, and promises to seriously interfere with, if not entirely displace, albumenized paper in the near future, and it is of this brand of paper I purpose dealing with in this article. One great point in its favor, exclusive of more beautiful results, is the simplicity of manipulation. Prints can be toned and fixed separately, or else fixed and toned by a single operation, the former method being by far the most preferable for the professional photographer. To obtain the finest results use negatives of ordinary strength, print slightly darker than for albumen paper, wash prints face down in cold water, changing water while any trace of silver remains. This must be carefully observed, as the the after results depends materially upon the proper washing of the prints. Never allow the fingers to touch the surface of the paper until after they are in the water; handle prints face down in all solutions, and keep them moving. Do not put too many prints in toning bath

at once. Do not use a combined fixing and toning bath; prints toned by it are of doubtful permanency. Judge of toning by looking through the prints, never by the surface; the color seen will be the color of the finished picture, allowing a little for the alteration in tone which arises in the drying. Always use a fresh fixing bath; dirty hypo will stain the prints. Wash prints two hours in running water and then mount; prolonged washing destroys the purity of the whites and is not required. Never use a strong toning bath; poor and uneven tones are the result. Do not attempt to tone without gold; the substitute, nitrate of lead, will destroy all the finer half-tones, ruin the whites, and is not permanent. Keep prints in moving water after they are toned until they are placed in the fixing solution. Do not use metal trays in any part of the process. Do not use the burnisher too hot; it will turn the tone a streaky red. Do not burnish prints until they are thoroughly dry, mounting over night is best. Do not use dry soap as a lubricator. Do not use salt in the toning bath. Spot prints same as on albumen paper, mixing your color with the white of an egg. Make your own chloride of gold. Mount prints in usual way with starch paste. Do not lay damp prints one on top of the other.

Prepare the chloride of gold as follows: Place a sovereign in a stone china cup with one oz. of C. P. hydrochloric acid; half oz. C. P. nitric acid; half oz. of water; place cup in hot water bath until dissolved and crystallized; then dissolve crystals in 16 ozs. of water. This will give one grain of pure gold to every dram of solution. In dissolving a smaller amount of gold use less aqua regia.

TONING BATH.

Water, 20 ozs.; gold solution, 1 dram; dilute in graduate glass with 2 ozs. of water, and neutralize with carbonate (sal) soda, and add to the 20 ozs. of water; mix well.

TONING.

Place the prints in the toning bath face down, until they are thoroughly saturated with the solution, then face

up. Prints should take about eight minutes to tone. As the bath becomes weak with toning a large number of prints, strengthen with gold diluted and neutralized as at first.

FIXING BATH--STOCK SOLUTION.

Water, 2 gallons; hypo-soda, 15 ozs.; pulverized alum, 7 ozs. This should stand a couple of days to clear before using. Use enough fixing solution to cover prints well. Fix prints fifteen minutes.

If all the operations are carried out faithfully, the operator will have prints of exquisite beauty and much greater permanency than those on albumenized paper.

Guelph.

A. E. LYON.

Photography and Photo-Mechanical Printing.*

BY PAUL L. WATERLOW.

II.

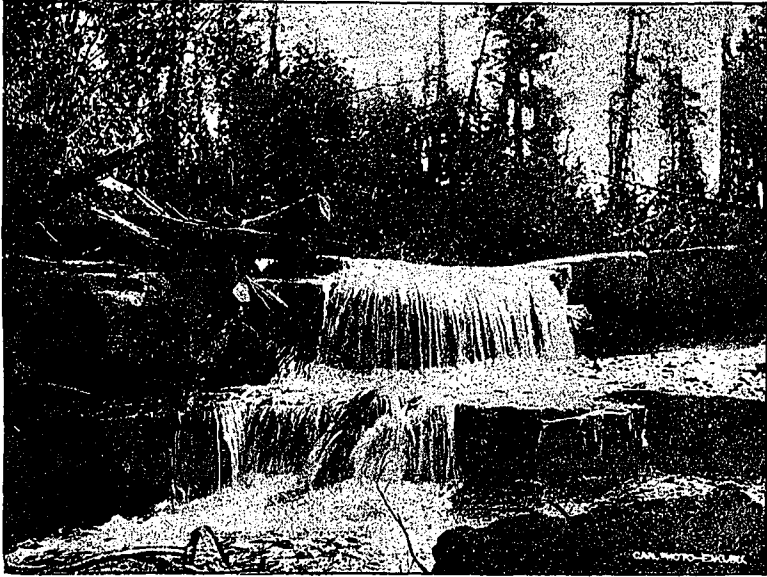
NIEPCE'S discovery, about the year 1825, of the curious effect of light on bitumen is very interesting from the fact that the process, only slightly modified, is employed to-day for the production of some of our finest photo-etched plates. I believe there are in the British Museum some specimens of Niepce's bitumen plates showing his attempts at etching quite half a century before there was any practical use made of them.

One of the most beautiful processes, namely, photogravure, was largely dependent in its beginning upon this action of light on bitumen.

PHOTOGRAVURE.

Photo-intaglio engraving is, as its names implies, just the opposite in effect to the photo-relief blocks, the principles are the same, however, and the difference in result is obtained by using a positive or transparency for obtaining the pictures on metal (instead of a negative), and by etching away the lines themselves instead of the metal surrounding them. I have here

*Lectures delivered before the Officers of the Royal Engineers at the Military School, Chatham.



“ FALLS ” AMABEL DU FOND RIVER.—G. BETHUNE.

a copper plate with the picture on the metal printed from a positive, and a plate upon which a similar picture has been etched, so that you can see at a glance how the results are attained.

The simplest way of obtaining a photogravure plate of a line subject is to coat a piece of copper with a thin solution of bitumen in benzol, and expose this plate under a clear, sharp transparency in a printing frame. The exposure will take about an hour in a good light. After exposure the image is developed with a little turpentine, and on the dissolving away of the unacted-upon parts represented by the lines on the transparency, the picture will appear as bare metal on a ground of bitumen varnish. On applying an etching solution of perchloride of iron to the surface of such a plate, the etching solution at once attacks the portions of metal bared by the developer, and quickly bites out the lines to a sufficient depth to permit of the plate being inked in and printed from. If the subject required is in gradation of tone, like a portrait or a landscape photographed from nature,

then a different treatment is necessary, and the following method is perhaps the best. From the transparency, or positive, of the tone-negative a print is made in carbon, exactly in the same manner as if one was making an ordinary print; but, instead of developing the carbon print on paper, it is developed direct on to a copper plate, which has previously had a fine grain of resin deposited and melted upon it. A grain of some kind is necessary on all half-tone photogravures, because without it there would not be sufficient texture in the etching pictures to hold the quantity of ink necessary to give a vigorous print. After the carbon print of the transparency is developed and dry, it should present the appearance of the plate which I handed round to you, and it is ready for the etching fluid, which is again perchloride of iron. A little practice is necessary in order to determine the right strength of the etching solution, as well as to judge properly the exact moment when to stop the operation of etching, because if the solution is too strong it will only etch the deepest shadows, and if it is

too weak it will etch too quickly all over the surface, and give a flat, thin picture. Here is a plate which is fairly well etched, together with some proofs. The plate, you will observe, is steel faced, which is always advisable; the hard facing protects the delicate details from being too rapidly worn away in the printing.

ZINC ETCHING.

The principles of the process of photo-lithography I have described to you are, by slight variations of working, employed in the processes of photo-zincography and photo-zinc etching, for the production of type blocks. Supposing, now, we take one of the lithographic transfers we have just been dealing with, and, instead of transferring its inked image to stone, we lay it down on a sheet of smooth zinc, the result will be as this, a print on metal which forms the basis of operations for the production of a relief block, *a block on which the lines are raised above the white portions of the picture*, and can be used in the printing press exactly in the same way as a woodcut or type.

Nothing can be simpler than the abstract principles of photo-etching; but, as not uncommonly happens, a considerable amount of skill and experience is required to put these abstract principles into practice.

The theory of etching is that the surface of a metal, like zinc, is easily dissolved, or etched, by nitric or hydrochloric acid, so long as there is no grease or varnish on the metal to interfere with the dissolving action of the acid. Supposing a piece of clean zinc is coated with wax all over, and it is dipped into acid, no etching will take place, because the wax prevents the acid from touching the metal; but if a drawing is made through the waxed metal with a sharp point, and then the plate is dipped in acid, etching immediately takes place wherever the point has bared the surface of the zinc, and the result would be a sunk or intaglio picture engraved into metal which could be printed from in a copper-plate printing press.

Before we proceed to the etching of

such a plate, we ought to tell you how to obtain greasy ink prints or photographs on metal by means other than of the transfer process, and the bitumen process, described to you yesterday. There are several methods, but it will be sufficient for our purpose this evening if we describe one.

The first thing, and the most important thing, is the negative; it must be perfectly sharp, the lines of the subject must be represented by clear glass, and the white paper by dense black deposit, and for the processes we are dealing with the negative must be reversed; that is, the negative image on the glass must be the opposite way round to that on a negative used for printing from direct, the reason being that a reversed picture is required on the metal block, so as to give a *non-reversed* result when the block is finally printed. There are a number of reversed negatives on the table which you may examine after the lecture.

Having obtained a proper negative, the next thing is to print the image on metal. A piece of clean polished sheet zinc, about three thirty-seconds of an inch, is cut to the size required for the negative, and is thinly coated with a solution of gelatine or albumen, water, and bichromate of potash. The plate may be coated with a large camel's hair brush, or the solution may be flowed over the metal. It is then dried by heat in a non-actinic light, and placed in a printing frame with its sensitized surface in contact with the negative. (Mr. Geddes will prepare before you and endeavor to print such a plate by means of magnesium, and will show you the results of each operation described.)

A few minutes' exposure to electric light or sunshine renders the bichromated gelatine insoluble wherever light has obtained access to the plate through the clear parts of the negative, the action being precisely the same as in the case of a transfer. The plate is next covered all over with a thin coating of greasy printing ink, and is then dropped into a flat dish containing cold water. The inky surface of the plate is gently rubbed with a sponge or wool, and the ink coating, together with the



"ON THE HUMBER."—W. HAVELOCK WALSH.

gelatine, leaves the plate entirely except where the light has acted through the negative, giving us a similar picture on the metal to that obtained on gelatinized transfer paper. At this stage the ink picture on the metal is rolled up with stronger and more ink, and it is then ready for its first etching. As the operations of etching such a plate occupy four to six hours, it is, of course, not possible for us to etch a plate before you, but we have here a series of plates showing the different stages of etching, and as they are handed round to you for examination we will rapidly go over the details of the process. The image on the plate which Mr. Geddes has developed before you first requires rolling up with a stiff greasy ink so as to give the lines sufficient strength to resist a weak solution of nitric acid in water (just strong enough to make the water distinctly acid to the taste) and the plate is kept in this bath for a few minutes, when it is taken out, washed, and again inked, and whilst the ink is fresh finely powdered resin is sprinkled over the face of the plate; the resin adheres to the inked lines, but washes

off the bare zinc. The plate is then slightly warmed on a hot plate in order to melt the resin adhering to the lines, so as to form with the ink an acid-proof varnish to protect the lines from being attacked by the stronger acid which is used for the next etching. The acid for this second biting may be about two per cent. solution, and the plate may remain in it for five or ten minutes, the bath containing the acid solution being rocked all the time to prevent air bubbles forming on the surface of the plate, and to ensure even action. After this etching there will be an appreciable amount of what is called "depth" observable, that is, the metal not protected by the inked lines will be dissolved away in a slight degree, and the lines will appear in relief; after this, the operations of inking, brushing with resin, and heating of the plate are repeated, and a third etching is given. The heating of the ink and resin melts the two together, and has the further purpose of melting it not only on the top of the lines but, as the metal is etched down, the ink flows down the *sides* of the lines as well, preventing the acid *under-cut-*

ting, which action, unless stopped, would soon eat out the work from the under side. The inking, melting, and etching is continued in this manner six, seven, or eight times until sufficient depth is obtained to make the lines high enough to ink sharp and clean in a printing press. When the whole of the etching ink is removed the plate is washed, and after one or two finishing or fine etchings it is ready for mounting, when it is trimmed and mounted on a block of mahogany type high ready for the printing press, as those you see before you. Here are finished and mounted blocks with proofs for your inspection after the lecture.

We will now pass on to a further development of this process. Hitherto we have only been dealing with line subjects in black and white. We will now treat with half-tone etching.

HALF-TONE ETCHING.

This important modification or adaptation of the last-mentioned process enables us to produce a type-printing block from hitherto impossible subjects,—namely, a photograph from nature, or a drawing in wash. The process has, during the last few years, been so improved upon and developed, that we may safely assert that this method of type-block engraving occupies to-day the first place amongst artistic photo-mechanical processes. Until the principle of breaking up a photograph into minute dots was devised there had been endless futile attempts to convert the graduated tones of an ordinary photograph into a surface printing-block, but the disappointing fact that an inking roller and a printing press absolutely refuse to distinguish anything but lines or dots forced all experimentalists to adopt, in one way or another, the system of dividing up the tone-picture in such a way that it consisted of an agglomeration of dots—dots very close together forming the blacks, dots wide apart the half-tones, and needle-point dots the high lights. There are a multitude of ways of attaining this result, and any amount of ingenuity has been brought to bear in rendering the processes as perfect as possible.

Your Sergeant-Major Husband has invented a capital transfer process for breaking up the image on a photograph so as to convert an ordinary photographic negative into a stipple, which can easily be reproduced as a lithographic transfer, or a type-block, by etching a zinc plate on which one of his grained transfers has been printed. We may say that he has not only discovered this useful process, but he has published full particulars, and given it to the world, unlike so many other inventors, who immediately prevent all use of their processes by elaborate patents.

The process, however, for block-making which is most in vogue at the present time is obtained by interposing between the sensitive plate in the camera and the print to be copied a dotted screen or negative which has been obtained by means of photographing an engraved tint of fine-ruled lines. To better explain to you what is meant, we have here a piece of a tint negative, used for this purpose, together with a negative made by interposing a similar tint in front of a sensitive plate in the camera. You will observe, in the half-tone or stippled negative, that the picture is made up of dots, as is likewise this print from the negative on a zinc plate of the image. Here, also, is a finished block, etched on copper by the same process and proof. If you examine the proof carefully, you will observe the dotting we have mentioned. When a similar plate on zinc or copper is etched with acids, the results are like the impression which we show you, and which you will recognize are used now so extensively by so many illustrated magazines, papers, and books.

(To be continued.)

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THIS IS POETRY.—The constant drop of water wears away the hardest stone; The constant gnaw of Towser masticates the hardest bone; The constant wooing lover carries off the blushing maid; And the constant advertiser is the one that gets the trade.—*Preston Progress.*

The Use of Focusing Eyepieces.

OUR title, says the *British Journal of Photography*, comprehends a broad field of subjects, but we more particularly desire to restrict it to optical combinations for ordinary every-day work in studio, or field portraiture, or landscape. Something might be said of the microscope as used for the purpose in photo-micrography, or the small lens employed by the optician in lieu of any "ground glass" in testing the capabilities of his various lenses; but we would leave such branches of the topic for dilating upon at some future period, as, instructive though a discussion upon them would be, it could not be comprised within the limits of a single article. We were led to the belief that some remarks about eyepieces would not be misplaced by a little accident that occurred within our own ken.

Some years ago, when photographing in company with a gentleman who had had much experience, we found him toiling, we might almost say, in the endeavour to get a sharp focus of a difficult subject. We offered him the loan of a focuser we had at hand, and he smilingly said he had no need for any such aid, but still, out of politeness, made use of the proffered assistance. Lately, however, in conversation with him, we found not only that he now invariably focused with such optical aid, but he was very *exigent* as to the particular form of instrument employed.

And so we believe—nay, we know—the case stands with many. Some decline the use of a focuser under the idea that it is unprofessional and amateurish, others are afraid they will be bantered as having poor eyesight; and it is our experience that when a man really does begin to feel the need for a pair of spectacles, but can just manage without, that is the time he is most insistent upon the fact that his eyes are as good as ever.

Finally, there is still another class who have no knowledge of a focusing magnifier except through the optician's price-lists. Of course, for outdoor work it increases, though by a very small amount, the weight of the kit, but we

do not hesitate to say that where accurate focusing, especially with large angular apertures, is desired, the use of such an instrument is invaluable, whether it be a home-made one, constructed by a pill-box and a spectacle lens, or a thoroughly convenient and specially devised one, as sold by the lens manufacturers for the particular purpose. Naturally, much depends upon the eyesight of the photographer as to the extent of its usefulness, but, to the best eyes, there are times when some things could not be satisfactorily and quickly done without employing it. For example, we have met a gentleman whose eyesight was so acute that he could read, aloud and quickly, matter printed in Snellen's smallest test-types at a distance just under five feet, which is equivalent to saying he could see objects with a facility equal to that enjoyed by an average reader armed with a glass magnifying four diameters. This, however, is a very exceptional case, and the greatest value of the focuser is felt by those whose eyesight is as good as ever for objects more than about half a yard away, but inefficient within that distance. If they wear glasses, this particular evil is by them corrected; but there is a large body who, in ordinary cases, would receive benefit from its common use, and a still larger body by its occasional use.

It is not necessary to have an elaborate or a costly instrument. The most simple is a spectacle lens of deep curves, fitted at the end of a pill-box. Some who carry a small magnifier in their pocket find it convenient to use it; but the employment of this kind of lens is greatly facilitated by having a portable foot or case for holding it at a constant distance from the ground glass; in fact, the real value of the focuser is not felt unless some such provision be made. A common three-legged seed microscope is often used; but it is always better for the foot or tube used to keep the lens at a constant distance to be opaque, and thus prevent the part to be magnified from receiving any extraneous light. This, indeed, is one of the recommendations of the instrument. Of the better class of magnifiers, the most common is a Ramsden eyepiece,

fitted with a screw for adjusting the distance from the focusing screen for any eyesight. There is also fitted for this pattern a screw-collar, or other contrivance, for clamping the lens *in situ* when once the focus has been duly set. Some of the objections to the employment of the instrument have arisen through one person attempting to make use of a glass set for one eyesight and not adapted, perhaps, to that of the objector. The great advantage of this particular form is the large field of view it permits and the perfect flatness of the whole of the field.

We have seen one, and one only, of this make modified in what we consider a very advantageous manner. The photographer who used it in his studio had found that the constant use of the metal upon his focusing screen had dimmed its surface by a multitude of fine scratches. He fitted a new screen, and had adapted to his Ramsden a flange, covered with velvet, and this was an improvement in many ways. As to the actual mode of employment, that is almost self-evident; but it may be pointed out that, to get its full value, the screen should be of very fine glass—etched, not ground—rendered still further transparent, in the usual manner, by oiling the surface. Then, again, it may be said that when examining very dimly illuminated objects the magnifier is best placed, not flat against the glass, but at an angle, pointed, in fact, in the direction of the centre of the lens. We need add no more after saying that, by the use of a focusing magnifier, time is saved, and convenience consulted to an extent that is not dreamt of by those who ignore, and, as is often the case, almost deride its employment.

A correspondent to the same journal adds the following:

SIR,—Your article in this week's *Journal* upon "The Use of Focusing Eyepieces," brings before photographers such a time-saving system of focusing, that I am sure none who have tried it will ever give it up.

With your permission I will explain a little dodge in connection with the use of eyepieces that very much increases the delicacy of the image formed.

Having carefully adjusted and fixed the focus of the Ramsden or other eyepiece,

procure five circular glass microscopic slide covers ($\frac{1}{8}$ inch is a convenient size), and cement them with Canada balsam on to the ground side of the camera screen, one in the centre, and the others around it about two-thirds of the distance from the centre to the corners.

The position of the view or figure can be arranged, as usual, upon the screen, which will, however, now appear to have five round holes cut through it, the Canada balsam having entirely removed all trace of "ground glass."

To adjust the focus, apply the eyepiece to the "holes," and for all practical purposes the result is a telescope, every detail will be seen with a crispness and delicacy that makes one wonder however we have previously managed to focus upon the rough surface of ground glass.

If makers would take the hint and supply the ground screen with five small polished surfaces, they would recoup themselves the extra cost by the additional number of eyepieces they would sell.

I do not claim any originality in this "dodge." It was given to me by Mr. W. Baynes, of the Torquay Photographic Society, and I have so appreciated its advantages that I think others might be glad to hear of it. I am, yours, etc., EDWARD J. SMITH.

¶ Priceless Ring.

"That is a singular ring you are wearing," remarked a lady to an acquaintance at whose hand she had been looking.

"It is a very dear ring, dear, and so costly that no money can buy it. I would not exchange it for the finest diamond, not for a gem from the crown jewels, it is so precious."

"Are they gems?" enquired her friend, looking at the the two small objects set in gold; "they look like opals."

"They are gems of the finest water," said the other, looking at her ring with sparkling eyes, "they are my little boy's baby teeth—that is why I value them more than gold or gems; they will always remind me of him."

If a negative becomes checkered or film cracked, good prints may yet be obtained from it by rubbing over the surface a tuft of cotton lightly charged with lampblack. This fills up the cracks and prevents them from showing when printed.

Our Illustration.

THE illustration presented in this issue needs no introduction. The Omega is well and favorably known by the most of our readers, and will receive a short description, with the process of working it, in another part of this issue. Mr. Sarony, in whose gallery the negatives were made, is no doubt known by a larger number of photographers than any other photographer in America. Besides the quality of his work, which has placed him in his present position, the fact that he is doing such a large trade with professional celebrities has no doubt advanced him to a large extent, as this trade places in his hands models who not only know how to pose, but also have the costumes, for attractive portraits. Mr. Sarony was originally from Quebec, and has been at his present place of business sixteen years. He occupies three upper floors of a building on Union Square, in New York City.

The reception room, which occupies most of the first floor, looks more like a museum than a photographer's gallery. In it there are a number of antique bronze figures, swords, battle axes, statuary, and some very old paintings, and in fact enough to keep many photographers who are visiting the city for the first time half a day looking around it. We understand that Mr. Sarony has gone to the expense of having a gentlemanly clerk in attendance, whose business it is to explain and show around the place the photographers from the country who honor him with a call. At present about twenty-five hands are employed in the different departments. Mr. Sarony does all the posing, assisted by Mr. Richardson, who has been with him for some years. Mr. Otto

Sarony, his son, has charge of the reception room. The operating room is lighted from the top only by a 15 x 24 foot skylight, assisted with numerous side reflectors.

At present they are using the Eagle dry plates, developing with the old fashion oxalate of iron developer. They turn out a large amount of portraits in pastel, oil, etc. Their photographs of the different actors and actresses are sold to a large extent all over the country.

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The World's Fair Convention.

SOME REMARKS BY PRESIDENT PLACE OF THE P.A.A. REGARDING THE EXHIBITION.

CHICAGO, May 11th, 1892.

To the Editor of JOURNAL.

Will you please insert the following in your valuable journal :

To the Members of the Photographers' Association of America and the Fraternity :

In view of the fact that there is to be a Photographers' World's Fair Convention held in Chicago in '93, I think it the proper time to commence work. Little did you expect when you elected me first vice-president at Buffalo last summer that I would now be filling the office of president, or perhaps you would have reconsidered your votes, and little did I expect that such would be the case, or I would not have accepted the position under any circumstances. Through the resignation of Mr. Entrakin, as president, it devolves on me to fill that position until the next election of officers, which will be at our next convention in '93. The position I take with some reluctance, on account of the circumstances mentioned. However, with the assistance of the members and officers I shall do my utmost to make the convention one long to be remembered. Owing to the fact admitted by most everyone that Chicago is the Convention City of America, and that we have secured the finest hall we have ever held a meeting in, there is no reason why it should not be a grand success. We have been liberal in prizes offered ; we have covered the field of photography, so that everyone can compete, having also arranged for judges, so that competitors will be responsible for their selections. Our display of photographs will, doubtless, be the finest ever made under one roof. The exhibit will be on one floor under an excellent light. Our sessions will be short and to the point. All papers will be read only by title, and afterwards will be published in the journals.

I hope the photographers will take an inter-

est, and commence now to prepare their work for the "World's Fair Convention" of '93. I wish to impress this on your minds of making a display of photographs in the "World's Fair" City at that time, and competing for a medal. The attendance will be enormous, not only from this country, but from others. We have the assurance of a fine display of work from Europe, and every photographer should commence to select negatives, from which to make prints, and bring them to Chicago at this time. It is to your interest to attend these conventions and compare your work with others. There is no one perfect; one can learn much by comparison. You can learn in a few minutes what it has taken others months to study out, and therefore, improve in your work, which you have got to do to keep up with the fast strides the profession is making. It is an old saying, "that there are none who have original ideas," and I believe it to be true to a certain extent, while you see a great deal of work in photography, that the position of lighting is characteristic of a certain operator. But that person's ideas are based from something he has seen; consequently not entirely original, and that is why I say it is to your interest to get away from home and compare your work with others and get some of the dust and moss off of you. "See?"

You can tell by visiting galleries, especially in smaller towns, whether they have attended photographic Conventions or been around much, by their work. There are some of them using old style card stock backgrounds and accessories that were discarded years ago for the more progressive ones. The officers of this association are at your service, so don't be backward in asking and suggesting anything that will be of interest to the Photographers' Association of America.

FRANK A. PLACE.

An Explanation

OF THE SCARCITY OF N. Y. ARISTOTYPE PAPER.

NEW YORK, June 3rd, 1892.

MULHOLLAND & SHARPE, Toronto, Ont.

Gentlemen,—Replying to yours of the 31st ult., we beg to state that we have been unable to ship any paper for the past week on account of our not being able to obtain any raw stock in this country; we will endeavor to ship your order this week, and in the future will try and keep you supplied. Kindly bear with us in our present difficulty and it will be greatly appreciated by
Yours very respectfully,

NEW YORK ARISTOTYPE CO.

A. M. Cossitt, Sec.

The days requiring the shortest exposures are those following nights of thunder, lightning and rain.

Omega Paper.

IN the front part of this number is our illustration on Omega paper. This paper has been used quite extensively in Canada, and the manufacturers at our suggestion have given us the following formula:

Use negatives of ordinary strength. Print about the same as on albumen paper. Wash prints face downward in clear, cold water, through several changes until all free silver is removed, which is not complete until the water remains perfectly clear, showing no milkiness. Soft water is preferable. Prepare the following solutions:

NO. 1.

Chloride of gold 15 grains.
Water 10 ozs.

NO. 2.

Borax saturated solution.

FOR TONING.

Water 20 ozs.
No. 1 1 "
No. 2—Sufficient to neutralize,

Testing with litmus paper. As each print reaches the desired tone place in salt water until all are toned. Rinse and fix twenty minutes in the following bath:

Hot water 1 gallon.
Borax 1/2 oz.
Hyposulphite soda 8 "
Powdered alum 3 "

This bath must be used cold, and made not less than two days before used, that it may be clear. It keeps and should be prepared in quantities. Do not use plain fixing bath, as it will soften the film. After prints are fixed they must be thoroughly washed, the best way is to change from tray to tray, one print at a time. Lift prints from tray on to a glass, let drain and mount as you would albumen paper, using a good stiff paste. When sufficiently dry they may be retouched and burnished in the ordinary manner, using dry Castile soap or any other good lubricator.

Handle prints face downward in all processes, and keep them moving. The toning action must be slow. Do not put too many prints in toning bath at a time, as they will not tone even if they overlap. Do not use warm water in washing.

Before fixed do not touch the face of paper. Do not use trays of metal or that are made on metal in any part of the process. Bad or thin paste or careless mounting will cause blisters or spots in burnished prints. A burnisher too hot will turn prints red.

A milkiness or whitish appearance may be the result of insufficient washing or too strong a toning bath. Red spots or streaks are caused by improper handling in the toning bath. If burnished too damp, prints are liable to have a grained appearance.

Prints may be soaked about five minutes in

a solution of one or two ounces of alum, dissolved in each gallon of water, to slightly harden the film, before washing or toning. The alum must be previously dissolved and allowed to settle.

Prints may be mounted dry if proper care is taken to cover the entire back with paste and the edges are very thoroughly rubbed down.

In mounting glace prints it is better to use an alcohol gelatine paste, that it may not penetrate through the paper and injure the gloss. This paste may be prepared by soaking gelatine in water to soften and swell; then thin with alcohol to about the consistency of cream.

Do not use lumpy or sour paste. The former will prevent an even adhesion and the latter will penetrate and discolor the print.

This paper, as the manufacturers inform us, is a gelatine paper, and, although new to a great many of the fraternity, is being used by a large number of them. The toning, as will be observed by the formula, is very similar to that used for albumen paper. There is, however, some difference in the working qualities of it, and these have caused considerable trouble to parties when first taking hold of it. It has been suggested that the manufacturers send demonstrators out to show the good qualities of the paper, and at the same time set their customers on the right track as to the use of it. We understand that they have a few men in the field, but of course it would be rather an expensive matter to see everybody in a short space of time, so that we do not wonder that there may be some parts of the country which have not been reached.

We are informed that the main cause of the trouble is that the directions are not explicitly followed. The paper is much heavier than albumen, and if allowed to remain in water without being kept in motion, similar to the practice followed by albumen printers, the prints will settle to the bottom and will merely soak and not wash.

This refers to the washing which is done after toning. The prints dry one or two shades darker than when taken from the toning bath, and if care is not taken to keep the prints in motion, after they are taken out of the toning bath, until they reach the hypo, they will settle to the bottom of the tray and

continue toning. The writer in toning small quantities of paper adopts the following method: He has the toning bath in front of him and an extra dish of strong salt and water at one side, and, as the prints were taken out when a warm tone was obtained, and then putting them into the salt bath, he would keep these in motion while the others were toning, which would be readily done unless there were two hundred prints or more.

Even when using running water to wash the prints, it would be almost impossible to get force enough to keep them in motion, to thoroughly wash without injuring the prints.

There is no need of keeping them in constant motion, but about every three minutes the bottom ones should be taken out and placed on the top. This also applies to the after-washing, which, if they are kept slowly moving for an hour and a half, will be enough by changing water six times.

Some have followed the practice of allowing the prints to soak over night. This may produce good results, but if the water is muddy or contains any foreign substance, there would be danger of yellow stains on them. As we said before, this paper has a gelatine coating, and of course when left in the water a long time the emulsion is softened and is in a condition to retain any dirt that would come in contact with it. No doubt a large number of the photographers at the present time remember the great difficulty the manufacturers of dry plates had when first introducing their products, but their persistent efforts brought them to perfection.

Omega paper was the first gelatine paper which was put on the market, and although the manufacturers undoubtedly have the most varied experience and the best knowledge of the business, still, when we consider that it has only been on the market for two years, we wonder that they have been able to turn out as satisfactory an article as they have. The coming paper for the photographer is the gelatine paper, and in the near future we expect to see its sales increase as the knowledge of its merits advance.

Amateurs at the World's Fair.

WORLD'S COLUMBIAN EXPOSITION, }
 EXECUTIVE DEPARTMENT. }
 CHICAGO, March 31, 1892.

F. C. BEACH, Esq.,

*Cor. Sec'y Society of Amateur Photographers,
 New York, N. Y.*

DEAR SIR,—Your favor of the 24th inst., relative to the right to photograph objects of interest at the Exposition, was duly received and presented to the Executive Committee of the World's Columbian Exposition at its meeting yesterday, and the matter therein contained was discussed at length.

The photographic privilege at the Exposition is regarded as very valuable, and is one of the sources to which the Exposition must look for the reimbursement of the heavy expenses entailed upon it. While it was the desire of the committee to meet the wishes of the very large and influential body of amateur photographers of this country in the matter referred to, the very fact that this class is so numerous was deemed a serious objection to granting the permits you desire, as, by so doing, the value of any photographic privileges that might be granted would be seriously impaired, if not wholly destroyed. Neither was it deemed possible by the committee for the Exposition to discriminate between those who were and those who were not amateurs in this art.

In view of these facts, the Executive Committee re-affirms the action of the Committee on Ways and Means, and directs me to express its regret at the inability to comply with the wishes of your society.

Very respectfully,
 BENJ. BUTTERWORTH, Secretary.

From the above letter, received by Mr. F. C. Beach, cor. secretary, Society of Amateur Photographers, New York, in answer to his written request that the Executive Committee reconsider their action depriving amateurs of the pleasure of using their cameras on the grounds of the World's Exposition, it would seem very probable that the camera is to be classed along with dynamite bombs, fire-arms, dogs, etc., and rigidly excluded from the grounds of the World's Columbian Exposition in '93.

It is a mistaken measure, and it is to be regretted that the Executive Committee see the matter in the light they do. The injustice that would be done to the legion of visiting camerists can not be too strongly dwelt upon. It deprives hundreds of thousands of half the pleasure of visiting the fair and the after pleasure of recalling what

they saw there to themselves and their friends.

That the privilege of photographing at the Exposition is a very valuable one is admitted; but the question arises whether it would not be far better policy, from any point of view, to take less from the four or six professionals—if, as is claimed by the Board of Directors, the granting of privileges to amateurs lessens the value of the professional grants—and then sell permits to amateurs under restrictions not to sell on the grounds. When we considered the immense number of amateurs who would gladly pay any sum in moderation for such privileges and the very considerable difference made in attendance, it would seem an easy matter to determine the best paying and at the same time the most satisfactory answer to this question.

It is to be hoped that the many influential clubs of the country will not submit to their members being thus classed among the "people to be watched," as it were, but will form a concerted movement for voicing a vigorous protest against such rulings on the part of the board before it is too late.

Since writing the above we have received a letter from Mr. Beach, enclosing a printed petition to the Ways and Means Committee, and which he will send to every camera club in America and most foreign countries for signature. We hope the energetic efforts Mr. Beach has made in the cause will be successful.

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 Snap Shots.

"What's the matter here?" asked a stranger of a small boy, as he noticed a large wedding party coming out of a church on Fifth avenue.

"Nawthin' but the tied goin' out," was the reply.—*Texas Siftings*.

Said the flaxen-haired maiden to the dapper young man behind the counter: "Have you any nice, soft muslin that will suit my complexion and hair?"

The Shopman: "Bleached or unbleached?"—*Chronicle*.

Brantford to Have a First-Class Gallery.

MR. COCHRAN, Hamilton's well-known photographer, probably the best known of Canada's photographers, through the artistic quality of his work and the position he holds as president of the Photographic Association of Canada, has concluded to open a branch studio at Brantford, and has purchased the gallery formerly operated by J. C. Walker, now of Toronto.

Mr. Cochran has concluded arrangements for the entire remodelling of this gallery and will spare no pains or expense in making it one of the best equipped establishments of the kind in Canada. The three-storey building to be occupied by Mr. Cochran will be almost rebuilt. The first floor, containing the office and show room, will receive a new plate glass front.

The remodelling begins at the entrance with new show windows of an attractive shape in plate glass. Inside on the ground floor will be the show rooms and framing department. The next floor will be reached by a stairway of easy ascent and handsomely carpeted, located mid-way down the store. This floor contains, first, the general reception room, to be newly decorated and furnished. From this a door opens directly to the operating room for those who don't care to put on any "finishing touches." Those who do are shown into a handsomely furnished dressing room, which will be very complete in all requirements for an elaborate toilet. Leading from this dressing room is a special apartment which Mr. Cochran has arranged for the use of his patrons wishing to be "taken" in full dress or in costume. This room has a direct entrance into the operating room, a very desirable feature and one that will, we are sure, receive the approbation of the ladies.

The operating room will be considerably enlarged and entirely refitted. The studio will be under Mr. Cochran's direct supervision, with an assistant who has the reputation of being one of the best operators in the country.

The good people of Brantford are to

be congratulated on the acquisition of such an artist as Mr. Cochran has proved himself to be, and will no doubt show their appreciation of his efforts and of himself as an artistic photographer by keeping him very busy.

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The C. Cramer Dry Plate Works, of St. Louis, Mo., are making an Isochromatic Plate which has attained the acme of perfection in the line of color sensitive plates. They are easy to work, as they develop and fix very readily. The only precaution necessary is to protect them carefully against too much light while developing. They yield negatives of superior quality without the use of a color screen. The best evidence of their excellence is the fact that Mr. J. C. Strauss, the well-known photographer of St. Louis, whose work has attained a world-wide fame, uses the Cramer Isochromatics exclusively, and is delighted with the results and the success he has with them. We hope, at an early day, to have an illustration of Mr. Strauss's work in our journal.

Our advice to all photographers whose aim it is to turn out the best work possible is to give the Cramer Isochromatic Plates a trial to be convinced of their superior excellence.

We also wish to call the attention of our readers to the fact that the G. Cramer Dry Plate Works are now making Transparency Plates for Lantern Slides. Although these plates have been on the market less than one month, and notwithstanding the fact that no special effort has been made to advertise them, the orders have already been coming in fast for them, and several very flattering testimonials have been received from prominent members of the New York Camera Club in which they speak of the excellence of these plates.

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Never keep anything in the dark room not actually needed. Clean out the old bottles, boxes, dust and cobwebs, and while you are about it take a look at the ventilator.

The New Concentric Lens.

IN answer to inquiries received, regarding the lens spoken of in the following article, we think, as we have not as yet given the new lens a trial, that we cannot answer the inquiry better than by giving the article clipped from that father of journals (and a good father, too), the *British Journal of Photography*, in its entirety, feeling that it will be of interest to all:

Among the innumerable lenses produced daily in the ateliers of the optician one will search in vain for any in which the application of a new principle of construction is involved. Changes have been rung upon pre-existing discoveries, and improvements, in some cases of great value, have been made, but it is long since any novelty in principle has been imported into the art of lens-manufacture. Happily we are now able to record the advent of one in which a new principle of great practical value has been introduced.

We have on previous occasions spoken of a patent new "concentric" lens of Messrs. Ross & Co., which was being constructed from formulæ by Dr. Hugo Schroeder, the mathematician of the house. Although the patent was completed in 1889, the lens could not be commercially produced before, in consequence of the difficulty of always obtaining the exact qualities of special glass required in its construction. This delay, however, has afforded ample time to test the glass, which, after three years, shows no deterioration.

Notwithstanding our having already given an account of the optical principles involved in, and described the construction of, the lens, we think it well to refer briefly to them again. And first we would observe that, in external appearance, it is nearly identical with the well-known "Portable Symmetrical" of this firm; but, if the lenses be critically examined, it will be found that, while each of those forming the symmetricals has its convex surface of a shorter radius of curvature than its concave surface—a condition of things absolutely necessary in all positive combinations of flint and crown glass—in the "concentrics" the reverse condition prevails, for the concave surface is of shorter radius than the convex. Both surfaces have one common radial centre, and are therefore concentric, hence the name.

Physicists are, of course, well aware that such a condition as that above described could not possibly be fulfilled with the ordinary optical glass formerly at our disposal, because of the flint possessing not only greater dispersion, but also greater refraction than its crown partner. The construction of a concentric positive lens was, therefore, impossible until the Abbe-Schott glass of Jena was made available. And among the various classes of this new glass were some corresponding to our crown and flint, but in which the former had a higher index of refraction than

the latter. The construction of the new lens may be stated thus: It is composed of two similar or symmetrical achromatic combinations, each being formed of two simple lenses, a plano-convex of glass of a high refractive and low dispersive power, cemented to a plano-concave of a lower refracting index, but of the same, or preferably of a higher, dispersive power, these being cemented at the two flat surfaces.

On theoretical grounds, we stated, three years since, that a combination thus formed ought to give such an elongation of the oblique pencils as to yield a flat field with good marginal sharpness; and, now that its commercial production is *un fait accompli*, we have witnessed in the new factory of Messrs. Ross & Co. a series of tests to which it has been subjected, by which this hypothetical conclusion has been fully established.

The demonstration established the fact that the new lens, with an aperture of $f/20$, covered an area of large angular magnitude (over 60° on the base line and about 80° on the diagonal) with great sharpness. The subject tested was a watch dial, the image of which, together with those of an adjoining lamp flame and an artificial star, was examined through a powerful eyepiece from positions both central and oblique to the axis of the lens. To enable this to be effectively accomplished, both the dial and the eyepiece were made to move over a considerable distance at a right angle to the axis of the lens, and observations could thus be, and were, made at various successive stages, representing inches on the ground glass of the camera from the centre to the side of the field. The definition was uniformly excellent throughout, establishing the fact that not only was the concentric lens anastigmatic, but that it had a perfectly flat field.

How, it may be asked, does the new lens behave when removed into the field and away from the optician's test room—a comparison some might think similar to that as between a laboratory experiment and a manufacture on a large scale? We can reply: Having placed the lens on our own camera and subjected it to the test of landscape experiment, we found, on applying it practically to the reproduction of familiar outdoor scenes containing numerous objects long used as tests, that when focusing the centre of the plate (a 10×8 one, the focus of the lens being eight inches), and employing a magnifier of great focal power for the purpose, there was absolutely no difference in definition between the centre and the margin, that the illumination was even, the depth of definition great, and the perfection of the image all that could be desired. The exposed and developed plates resulting affirm this in a lasting form.

Not only for landscape and architectural work but to those who have to make sharp copies of maps and similar cartographic subjects we cannot conceive of anything more perfect, as marginal sharpness is secured without the necessity, hitherto existing, of stopping down to a light-destroying aperture.

The "concentric" must prove a great boon

to the photographer who has, with ordinary lenses, to have recourse to very small diaphragms in order to get perfect sharpness at the sides of his picture, more especially if a wide angle of view is included, and we cannot but give it a hearty welcome as a useful addition to our picture-making and copying resources.

Wonderful Pictures.

A lecturer at the South Kensington Museum, of London, recently made some strikingly interesting statements concerning results he had achieved by the use of the electric spark in photography of flying bullets. The spark is generated by the discharge of a Leyden jar, there being in the conductor from it two breaks which cannot be jumped owing to the weakness of the current. When, however, the bullet makes a contact with one, a spark is omitted from the other. Although the duration of this spark is less than one-millionth of a second, it is sufficient to exceed the speed of the bullet, which, as a consequence, appears stationary and may be caught by the camera.

The pictures taken show the form of the bullet, its direction and inclination, the condensation of the air in front of it, the vacuum back of it, and the various waves in the surrounding air. In some of the pictures shown by the lecturer the bullets were sent through panes of glass. In one the head of the bullet protruded, carrying what seemed to be a dark cloud of lead vapour, while another picture showed a storm of dust from the smashed-up glass. In others, clean perforations were made in the glass, the photographs clearly showing that the reason the holes were so perfect was that the speed of the bullet exceeded the speed at which cracks in the glass can travel. The consequence is that the portion of the glass in the bullet's path is pounded into powder before the other portions can start in motion.

If you are troubled by a reflected yellow light from side walls of adjoining buildings or other causes, it can be easily obviated by hanging curtains of blue gauze at the windows.

Some Hints from Moncton.

To the Editor of THE JOURNAL.

SIR,—Appreciating your efforts to give us a good Canadian journal, and wishing to help you, I send you a few things that may be useful and you may use them if you see fit.

TO REMOVE THE YELLOW TONE OF GELATINO-BROMIDE PRINTS.

Place the prints in a solution composed of a saturated solution of oxalate of potash, two parts; water acidulated with acetic acid, one part. The immersion may last an hour or two. This method is also efficacious for prints that have been made several weeks.

IODIDES IN THE DEVELOPER.

If you take a one per cent. solution of iodine in equal parts of alcohol and water, you will find it has a fine effect. The action is the opposite to that of bromides, the latter, as is well known, tending to the increase of contrast, whereas iodine tends to produce reduction of contrast, and if used to an excess it will flatten the negative. This is worth trying, as the effect is a very striking one.

MONCTON.

[Communications of this kind are very welcome, and are interesting to all our readers, we are sure. It is a real pleasure to feel that the photographers, in whose interests we are working, are beginning to be interested enough in our journal to aid us in this way.—ED.]

Advices from Germany report the discovery of an important method of engraving. The process consists in transferring to a zinc plate, by the usual methods of photography or by hand, the design to be etched, and, after blacking the plate with a coating of asphaltum, suspending in a bath of weak acid. A current from a dynamo is caused to be passed through the plate, one of the wires being connected with the plates and the other being suspended in the acidulated water. A few minutes is sufficient to cause the design to be eaten into the plate, the depth of which can be easily regulated.

Toronto Camera Club.

But few members are to be found at the rooms, as at the present time all spare time is occupied in out-of-door excursions after something new. There has been so much said about "chestnuts" during the last winter that all are determined to have an entire new stock of pictures; some have even gone so far as to purchase new cameras so as to doubly ensure this desired end.

We were surprised at the very creditable showing made by the club at their recent exhibition, notwithstanding that only a few of the members exhibited. The large space afforded by the club rooms was well filled with very fair work. The exhibition was the first ever held by the club, and has proved that it is alive to a much larger extent than was known. The prize list was extensive, consisting of medals and plates, the winners of which we give below: Mr. Croil carried off the lion's share, winning five medals—landscape, architecture, interior, enlargements in class A and portraiture in class B; Mr. Walsh, marine and architecture, class B; Mr. Manchee, landscape, class B; Mr. Bethune, interior, class B; Mr. Muntz, groups, class A; Mr. G. H. Gooderham, groups, class B; Mr. English, lantern slides and special prize for best work on Cramer isochromatic plates; Mr. Manchee, special prize best work on Cramer lightning plates; Mr. Muntz, best work on "Star" or "Eagle"; Messrs. Gooderham, Langton and Ridout, the special prizes for Stanley plates; Mr. Ellis, best general exhibit. We did not agree with the judges in all their discussions, but knowing what a troublesome and puzzling matter it is to judge a large number of pictures we will not comment further.

The club have decided to hold another exhibition in the fall, sometime in October probably, and no doubt a much larger room will have to be secured to accommodate all who wish to exhibit, now that the ball has started.

We congratulate the members of the executive in having, after much hard work, brought the club to its present excellent standing and the membership up to and beyond the century point.

A New Camera Club in Hamilton.

There was formed in Hamilton, on Tuesday the 26th April, what is known as the Photographic Section of the Hamilton Association, the objects of which association are research in history, science and art. The following officers were elected: Chairman, S. Briggs; first vice-chairman, A. Neill; second vice-chairman, R. Moodie; secretary-treasurer, W. White, 9 James street north; chairman of executive, W. J. Grant. The officers, with the help of Mr. Grant, constitute the Executive Board. The section starts with about 30 members and hopes to put in a good season's work. A dark room has been provided for the members with the necessary detail. Visitors from other clubs to our city will be welcome to use our room and appliances by applying to the secretary.

The regular meeting of the Photographic Section was held on Tuesday evening, May 31, Chairman S. Briggs presiding. There was a good attendance, and an interesting discussion on matters relating to photography generally and the developing of pictures particularly. Several members showed specimens of their work. Robert Stark promised to read a paper at the meeting on July 26, on the "Chemistry of Photography." Arrangements were made for the section to attend the association's field-day excursion to Grimsby on June 11.

W. WHITE, Secretary.

Books and Pictures Received.

SHEPP'S PHOTOGRAPHS OF THE WORLD. Sold by subscription. Guelph: The World Publishing Company.

There is really only a few of us who ever see even half of this great world with our own eyes. "Shepp's Photographs of the World"—a magnificent album of pictures containing over two hundred and fifty views—makes it possible for those of us who must stay at home to sit us down and by turning over its pages see not only the most interesting scenes in America, but also England, Ireland and Scotland, the Continent, Egypt, Palestine, Syria,

India, China, Australia and other less important countries. The book likewise contains copies of famous paintings and statuary of old and modern times.

The compiling of this most interesting and instructive work is said to have cost \$100,000. The Canadian edition is issued by the World Publishing Company, of Guelph, Ont.

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A TOO SHORT VACATION. A Complimentary Volume. Rochester: The Eastman Company.

One of the most elegant things in the way of an advertisement ever brought to our notice, lies before us, in the shape of a handsomely bound volume entitled "A Too Short Vacation." It comes from the Eastman Company and contains a delicately underlined reference to their popular Kodak, covered very acceptably by a story describing a three months' trip of some Philadelphia girls through the "Old Country." The girls have with them that almost indispensable adjunct to travelling nowadays—a Kodak—and the 264 pages contain forty-eight illustrations made with the Kodak during the trip, besides a brightly written account of their ramble and an appendix of many valuable hints to Continental travellers.

.....

We have received from the Eastman Kodak Company, a souvenir of the visit of President Harrison and party to their new film works, at Kodak Park, last Memorial day. It is an 8 x 10 photo of the entire party, and is an interesting picture, as there have probably never before been so many famous statesmen photographed together.

.....

We have received a gracefully posed cabinet photo of a little girl sitting on a huge log with a puppy by her side, the operating, developing and retouching of which was done by Miss Kate Leary, of St. Mary's. The lighting, posing and effect of the picture does Miss Kate great credit. In fact, it would be a credit to most of our gentlemen operators.

Mr. Mulholland Married.

On June 7th, at the residence of the bride's parents, at Hillside, Eglinton, Mr. Frederick Mulholland, of the well-known firm of Mulholland & Sharpe, was united in marriage to Miss Evelyn, the only daughter of Mr. E. H. Badgerow, Rev. Wm. Patterson, of Cooke's Church, officiating. The bridesmaids were Miss Lillian Mulholland and Miss Hattie Latter, the groomsmen being Mr. George and Fredrick Badgerow. Mr. and Mrs. Mulholland left after the ceremony for an extended trip through the United States. On their return they will find an elegant new residence furnished and waiting for them at No. 6 Howard street. The presents were numerous and appropriate, among them being the only jewel ornament worn by the bride, consisting of a handsome diamond pin, the gift of the groom. The guests included most of the notable names of the city.

.....

W. Ross Mair, of Spadina avenue, this city, has taken possession of his new and attractive studio at 436 Spadina avenue, occupying the entire building at that number. The reception rooms and office are on the ground floor, dressing rooms and a well-lighted operating room on the next. West-enders should show their appreciation of Mr. Mair's efforts in providing for them one of the most complete galleries of the city by an increased patronage.

.....

The well-known American "Aristo" is gaining in favor every day in the States, and new users are constantly coming into line. The manipulation has been so much simplified since the introduction of the hot water process that this is not to be wondered at, when the beauty of the result is taken into consideration.

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The two half-tones in this issue are the work of Mr. Walsh and Mr. Bethune, of the Toronto Club, and are very pleasing to look upon.

Latest Formula for Rodinal.

WE have received from Mr. Geo. Murphy, New York, trade agent for the U. S. Photo Supply Co., the following latest formula for Rodinal sent to him direct from the factory :—

Developing should be commenced with a solution of 1 part of Rodinal, 30 parts of water.

The image, even on under-exposed plates, will appear rather rapidly, although it becomes more conspicuous only after three or four minutes, thus leaving sufficient time to watch the progress of development.

1. *Under-exposed plates* you can generally finish developing with a dilution of 1:30, without obtaining a negative with too great contrasts. Should there be a considerable under-exposure, add to the solution another 5 to 10 parts of water.

Rodinal not being an agent to fog the image, developing may be continued for a very long time. You will then obtain a soft negative, with an image properly and harmoniously worked up, which, if required, may be intensified.

2. Should the plate, on developing with a solution 1:30, prove to be *over-exposed*, remove the developer from the tray and add to it, in order to make it work with greater contrasts, an ample quantity of a solution of bromide of potassium and a few drops of undiluted Rodinal.

To this end it will be found useful, always to hold ready a solution of 1 part of bromide of potassium (cryst.), 3 parts of water, 3 parts of Rodinal, to be added by drops.

3. Should, in cases of *normally-timed exposures*, after developing for three or four minutes, the image not be of sufficient strength, it will be due either to the plate being of a kind working particularly smoothly, or to the photo having been taken in an especially dull light (landscapes for instance). In either case the employment of a developer working with greater contrasts will be necessary.

The same directions as for over-exposures should here be followed.

4. You should always develop somewhat beyond the desired intensity, in order that the negative, after fixing, may still be of sufficient strength.

5. *Bromide Paper* should generally be developed with a solution of 1 part of Rodinal, 100 to 200 parts of water. Some kinds, however, require a stronger solution, viz., 1 part of Rodinal, 40 to 80 parts of water.

For fixing purposes the ordinary bath of hyposulphite of soda may be employed, although an acidulated bath will always work more reliably. To obtain this, dissolve 1 part of fixing salt (a new preparation lately brought out by the Actien-Gesellschaft four Anilin-Fabrikation), in 8 parts of water. Or dissolve 5 parts of sulphite of sodium (cryst.), in 100 parts of water, acidulate with 1 part of concentrated sulphuric acid and then add 20 parts of hyposulphite of soda.

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