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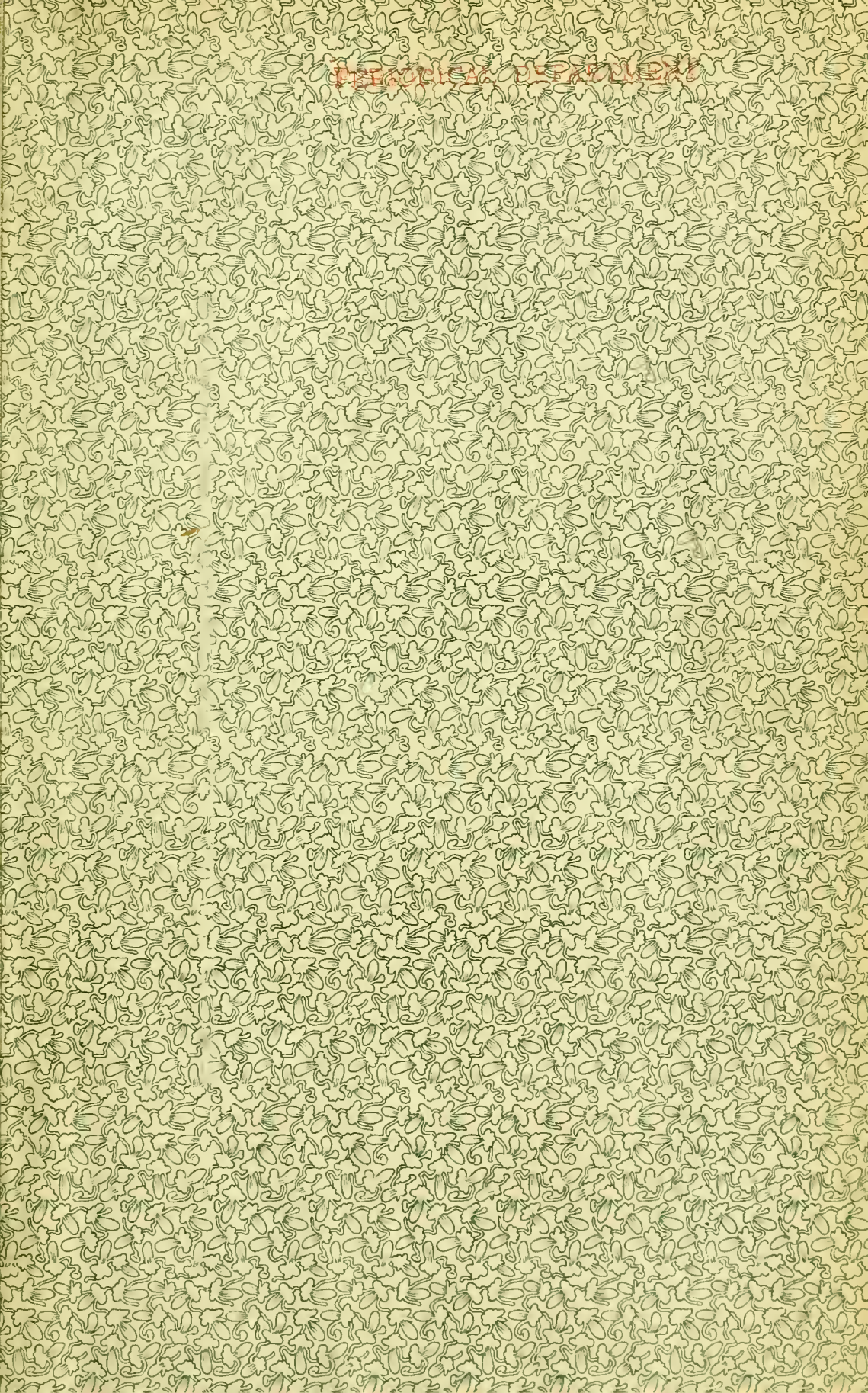
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CAMERA CRAFT

A Photographic Monthly

Edited by
H. D'ARCY POWER, M. D.
EDGAR FELLOES

VOLUME XXVIII

January to December, 1921, Inclusive

CAMERA CRAFT
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NATURE'S GARDEN,
SAND DUNES
By EDGAR FELLOES



CAMERA



CRAFT



A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief

EDGAR FELLOES,
Associate Editor

CLAUS SPRECKELS BLDG.

SAN FRANCISCO

CALIFORNIA

VOL. XXVIII

JANUARY, 1921

No. 1

Fascination of Animal Photography

By Stockton Veazey



Illustrations by the Author

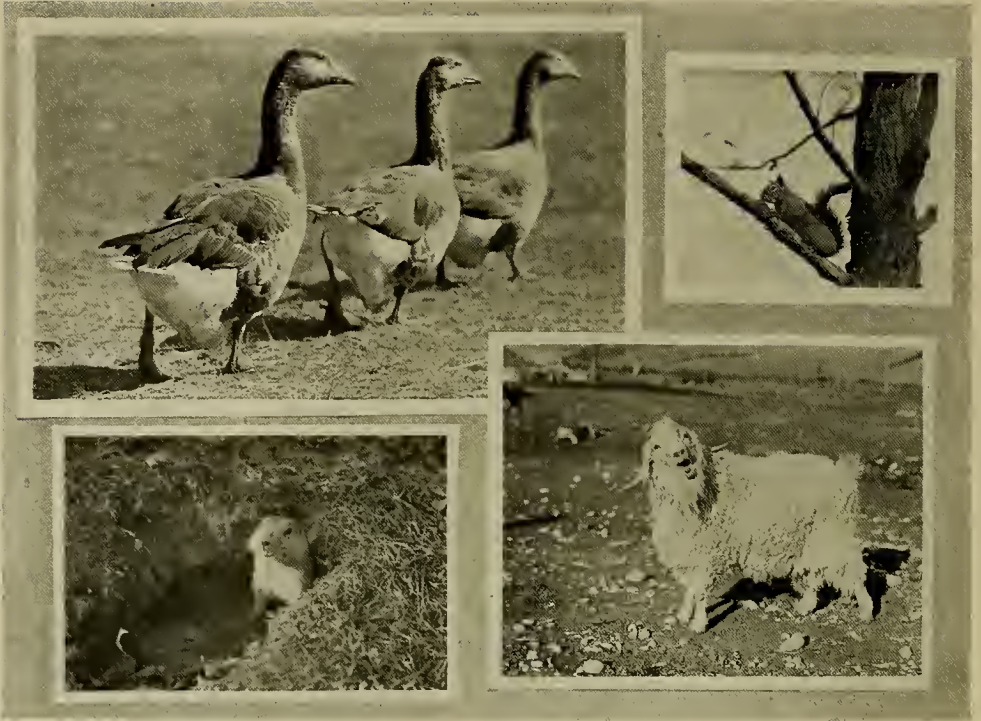
The attention of many persons has been attracted to the interesting photographs of wild animals that have appeared from time to time in various publications and books. Radcliffe Dugmore in his "Camera Adventures in the African Wilds" has made remarkable contributions to this line of effort. The pictures made with the Roosevelt African expedition are of unusual interest. Many other collections might be mentioned.

The amateur photographer in reflecting on these achievements may have heaved a sigh that he could not have such an opportunity. Such sighs are unfounded. The rest of us "back home" enthusiasts can, if we desire, contribute our share to interesting life pictures of our animal friends, domestic, wild and semi-wild.

It is true that a photograph taken of a wild creature still wild and in its natural haunts has a fascination of its own. But all wild creatures are not found in darkest Africa or in South America. And then domesticated or captured animals that were once wild afford interesting subjects for photographic effort. This statement is based on the interest that has been shown in the accompanying prints, all of which were made by the author during odd moments of leisure, and are the result of a continued persistent interest in photography extending over some fifteen years. No special photographic vacations or trips were made but the habit of carrying a camera of some sort on many occasions has helped to secure pictures not otherwise obtainable.

The squirrel picture was made in 1914, with a 3A Graflex with 8-inch

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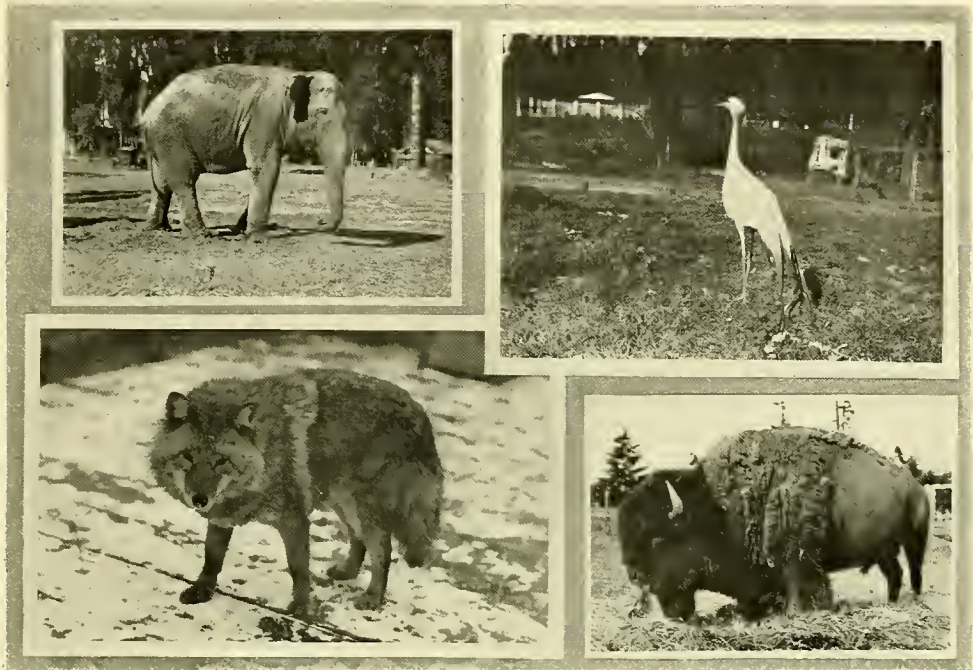
Tessar IIB lens, about 1/150 second exposure, aperture f-6.3. It took patience. The squirrel is not a very good sitter. He is as active and restless as a California flea. The little rascal is given to quick movements and remains still but little of the time. Out of a roll of six films, all made with much care, this was the only success.

The **three geese** in single file were discovered in a barnyard one afternoon. This was also made with 3A Graflex and IIB Tessar lens above described. A slight error in focussing is evident, which is something the user of a reflecting camera has to guard against. He is inclined to focus **too near**. The rear goose is in sharp focus but the others slightly out. Had the center goose been the object of sharp focus the picture would have been slightly improved.

The **goat**, with his mouth open protesting at being photographed and refusing to look pleasant, was made with a 4x5 Auto Graflex, Ic Tessar lens of 7-inch focus, exposure 1/160 second about f-8. The speed seemed necessary to stop slight motion as camera was almost upon subject. It was necessary to have an ally prod the goat in the ribs, pull his short tail and otherwise torment him into something of a different expression. We were out for no ordinary goat.

The **gopher**, looking out from his hole in the ground was recorded with same equipment as for the squirrel, and same exposure, after about an hour's patient waiting, following, watching. He came out several times but darted back before any focussing could be done. At last, after waiting at

FASCINATION OF ANIMAL PHOTOGRAPHY



the hole with camera in position and ready, almost until the arms ached, the deed was done with the resultant bull's eye.

The **coyote** was taken in his pen on a cold November day, dull light, with snow on the floor. He was a friendly fellow, had lost much of his wild ideas and looked on visitors as a possible source of food. Same equipment as for taking goat. Seed 30 plate.

The **elephant** was at the Seelig zoo in Los Angeles several years ago. Superfluous to say the bright sun was shining in Los Angeles. It may seem easy to make such a picture but there were difficulties to surmount. First another elephant was so close his rear legs protruded into the picture, not in the least to its improvement. Then the subject came too near and if the photographer backed off, an iron railing, or maybe it was a rope, would have appeared directly in the foreground. And an elephant may not be pushed here and there at will. One has to consult his will. Patience won the day. Such a picture would possibly be of no interest to an artist with an impression to convey but as a photographic record of a huge beast it may pass. $3\frac{1}{4} \times 4\frac{1}{4}$ Auto Graflex camera, Ic Tessar lens, 5-inch focus. Film pack.

The **buffalo** picture, though defective because of slight distortion, is here introduced to caution against trying for too large an image with a short focus lens. Same camera as for elephant. Beware of this, else have a lens of longer focus.

The slender **silver colored bird**, name and species unknown to writer, could not be posed before the background most desired and had to be taken "as was." Also the light was harsh and the resulting negative somewhat contrasty, but there remained a record of a beautiful and graceful fowl.

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Like many others, the author began photography with a very humble outfit, one of the first pocket Kodaks, which did not fold. The fascination of photography did not wear away as time went on, instead it grew, and he finally became possessed of a reflecting camera with high grade lens. Not however until some years of experience with simpler outfits had prepared him for the advanced step.

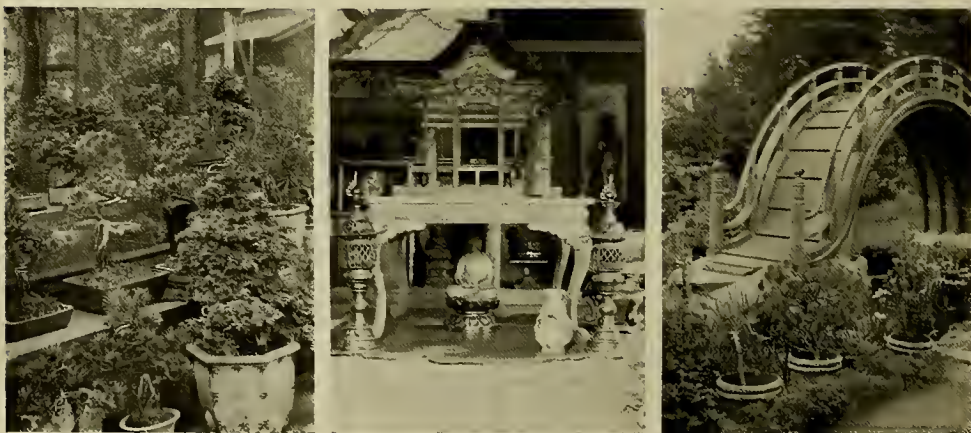
The present instrument is a 4x5 Revolving Back Graflex with long bellows, 18 inches. Lens Ic Tessar, 8½-inch focus. A desirable addition would be a convertible lense whose single element might have about 15 or 16 inches focus for far objects or for securing large images of small things like a sea gull, for example.

In the writer's experience the new portrait film is superior to anything else offered, with one objection that may be soon corrected. They are not conveniently developed in tank in 4x5 size, just yet, as no tank of this size has been made for them. The best arrangement is to use a 4x5 plate tank, putting six films in against the sides of three blank glass plates with emulsion removed. The films will stick firmly to the glass in development and are afterward separated in water.

Tank development? Absolutely. Think of all the costly experiments the manufacturers have done for your benefit. Why not avail of this?

In photographing among trees, it will frequently be found that bright sunlight is not desirable, on account of the result being "spotty." It is good practice therefore, to attempt the scene in a more subdued light, and later if necessary, to have recourse to slight local intensification, to attract the spectator to the point of principal interest in our picture. By this means we achieve an artistic focus most gratifying to the eye, and pleasing to the sensibilities.—E. F.

Men tire of the failures who fill with their sighs the air of their own neighborhoods; there's a man who is greeted with love-lighted eyes—he's The Man Who Delivers the Goods.—Walt Mason.



Plain Salted Paper

By Edgar Felloes



Illustrations by the Author

I have often wondered why our pictorialists have so completely ignored the plain salted paper print, it has beauties peculiar to itself, and though it is one of our oldest printing processes, yet improvements from time to time have made it capable of producing most artistic results.

When salted paper had reached a high state of technical excellence, the glossy print in the form of highly polished albumen pictures, and later the emulsion papers, were in the spotlight of popular fancy. It had become by this time second nature to go to the box for our printing paper provided by enterprising manufacturers, and we saw in quick succession many, many kinds of paper produced and offered as, the, one, best. Practically all of these have vanished, they were unstable, and I still have prints made by these much lauded mediums, that are now ghosts of their former selves.

It seems to me, it would be worth while for the more advanced workers, to familiarize themselves with the salted paper process; to be the only exhibitor in a salon, using this medium, would add quite a little interest to



"I CAN'T HELP LAUGHING"

CAMERA CRAFT

that particular exhibit. Of course, process, is not the important thing, but it is nevertheless a matter of interest.

With this article, I am publishing two cuts as illustrative of the fact that salted paper prints do not necessarily fade, and they need not be so dead and sunken looking as some have stated. When properly made, I believe they are permanent, and it will interest the reader to know, that these two cuts, were engraved directly from photographs on salted paper, made by me twenty-five years ago. I still have a carbon print of the laughing child, but of the two I prefer this one, printed on the salted paper.

A great advantage in this process is, we may avail ourselves of papers of various surface textures and different tints; also we may tone our pictures from beautiful warm blacks to various shades of sepias and browns and some workers have also produced beautiful reds of the red chalk order. The process is not expensive, and outside of the raw materials the whole work is done by one's self.

As to texture, we have abundant choice. If we desire much detail use Rives paper, or any pure paper of smooth surface, and with a suitable negative we can show detail equal to a modern matt surface print. Steinbach paper presents a rougher surface but is pleasing, the paper itself is, or rather was, quite moderate in price. The profile portrait here shown was printed on Steinbach. Whatman paper was a favorite with me; the child portrait was an enlargement from a snap shot, I first made a positive by contact, and projected it on another plate, which gave me the enlarged printing negative, I chose the "medium rough" Whatman, as the grain of the silver in the enlargement showed somewhat coarsely.

During the time I was experimenting on home sensitized papers, I believe I tried most of the formulas put forward by various workers of those days with varying results; I naturally had many failures, but failures are nothing; I am convinced we learn more from them than from our successes.

In looking over old prints from time to time and discarding them when they proved failures by fading and discoloration, I have learned this fact; that the gelatine used for extra sizing to give the print extra brilliance was positively harmful, the more the gelatine the less the permanency; this also applied to albumen. This lack of permanency is also shown by gelatine emulsion papers, but I have collodion papers of the same date that show no change whatever. It must be remembered I am now speaking of print out papers.

In the face of all this evidence, it would seem wise to favor a process not needing this extra gelatine sizing; let the size the manufacturers use to give strength to their product be sufficient.

The nitrate of silver did not seem to have such a bad effect on arrowroot coated paper, but I discarded this, as I thought the little advantage gained did not compensate for the extra trouble.

PLAIN SALTED PAPER

To G. H. Moss, in a lecture given before the South London Photographic Society, about twenty-six years ago, I am indebted for the chromate of silver method, and by this method the paper was prepared on which the two now used were made; and it is my belief that their permanence is due to the



FROM A SALTED PAPER PRINT 25 YEARS OLD

entire absence of the extra gelatine sizing, for these prints had no special treatment otherwise.

We now will treat on the making of our paper. The kind selected needs to be treated in what is known as the salting bath; this is prepared in the

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following way according to the Moss formula:

Sodium chloride	150 grains
Ammonium chloride	100 grains
Potassium bichromate	4 grains
Water	20 ounces

For first attempts, adhere closely to this formula, be particular about the quantity of the bichromate salt, as the peculiarity of the whole process hinges on the restraining effect of this salt. The quantity called for here is suitable for a normal negative, if the negative is a harsh and contrasty one, reduce the bichromate to two grains, if on the other hand our negative is thin, increase this salt to six or eight grains, but printing becomes very slow in consequence.

I would advise, if our negative should need such a quantity of the bichromate as eight grains, it would be better to make the print on a contrasty developing paper.

When all the salts are thoroughly dissolved, pour the salting solution into a clean dish, and immerse the paper completely in the liquid, it should remain submerged five minutes. Turn the sheet over and break any air bubbles. After the first sheet has been in the bath one minute I place a second sheet on top and so on at one minute intervals, when the fifth sheet has been added I turn the whole pile of papers over, remove the one on the top which was the first to go into the bath, permit it to drain a moment and then suspend with clips from a string to dry, treat others in turn similarly.

While at the salting it is better to treat all the paper we are likely to need for some time as the paper will keep, if stored in a dry place. The unused salting solution should be thrown away, fortunately it costs but little.

The sensitizing solution is made as follows:

Silver nitrate	1 ounce
Citric acid	150 grains
Distilled water	8½ ounces

Sufficient of this solution should be made up to cover the bottom of tray one-half inch. The tray should be scrupulously clean, and if a worker did much work by this means the tray should be set apart for this purpose solely.

The floating of the paper, though very simple, may need a little practice. Thin paper should be experimented with at first. With thick papers I adopted the plan of holding the sheet over a basin of hot water, just to take the spring out of it. If I had several sheets to be treated I fastened a string over the bath tub on which the sheets of salted paper were suspended, then I turned on a little hot water and the paper was in good condition to sensitize in a few minutes.

To float a sheet of paper, hold it by the two corners diagonally opposite each other, that is, hold the sheet of paper by the bottom left hand corner and the top right corner, use both hands. Bring both hands nearer together

PLAIN SALTED PAPER



ENCIRCLING HILLS AND A CURVING SHORE

By F. E. Samuel

and your sheet of paper will hang downwards in a loop. Now lay the paper on top of the silver solution and gently lower the two hands, holding the corners and the whole sheet will float upon the silver solution. If the paper shows a tendency to curl up at the corners, breathe on them a moment, and they will immediately return to the flat position. Thin papers are not likely to give this trouble, but with thick drawing papers unless slightly dampened in the way described we may experience a little difficulty.

When floating the paper, be careful that no silver solution runs over the back of it, or it will cause a stain. Also, as soon as the sheet of paper gets limp, lift it up each corner in turn and look for imprisoned air bubbles, break these at once with a glass rod and touch the spot with a little silver solution by means of the rod and lower the sheet down again. The time for floating the paper is about two minutes, but with rough surfaces I gave three minutes. Now remove the paper carefully from the sensitizer, and in doing so lift it very gradually so that the surplus silver has time to drain off, some operators drag the sensitized sheet over the edge of the tray and hang up the paper to dry. All this work can be carried on in subdued daylight, or by ordinary artificial light with perfect safety. I need hardly remind the reader the sensitizing bath should be carefully handled on account of silver stains on hands or clothing. Rubber stalls on finger and thumb of each hand are a convenience.

The care of our sensitizing bath demands attention, that is also a very simple matter. A moment's thought will tell us that with every sheet of paper floated on the bath, some portion of the nitrate and citrate of silver is removed, it becomes a chloride and a chromate of silver on the paper with also free silver. We started with a bath of about 60 grains of silver to the ounce of water. We may work that bath down to 45 grains of silver to the

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ounce, but in my practice I always made 50 grains to the ounce my limit of dilution for this reason, if the silver solution is allowed to become weak, the salts in the paper will change the whole of the silver to the chloride and chromate; it is absolutely necessary for rich color, that free silver should be in excess, therefore keep up the strength of your silver bath.

To ascertain the strength of our silver bath, an instrument known as an argentometer is useful. It consists of a glass cylinder and a float, on the stem of this float is a graduated scale; after sensitizing our paper pour some of the silver solution into the glass cylinder, nearly fill it, now insert the float and take your reading, if the float sinks till the line at 50 shows on a level with the surface of the liquid, you will know the strength of your bath stands at 50 grains per ounce of liquid, this is only an approximate reading because there was citric acid mixed with the silver, but this reading is sufficiently accurate for our purpose. According to this then, we have deprived the bath of ten grains of silver to each ounce of liquid, let us say there were ten ounces of silver bath, then we must add 100 grains of nitrate of silver crystals to make the bath its original strength of 60 grains to the ounce.

After constant use our silver bath will get discolored; simply place it in the sun and it will clear itself, filter it by plugging a funnel with a little absorbent cotton and pass the silver solution through, the cotton should be packed sufficiently tight that the solution filters itself drop by drop; it then is ready for use on another occasion.

When the sensitized paper is dry, which should have been in a fairly dark room or closet, wrap it up and store it under pressure. This paper will keep for three weeks or a month, though I made three days my limit. In fact, it was my usual practice to sensitize in the evening, and I would use the paper the following day.

There is an important item not to be overlooked in printing; either your negative should be varnished, or a sheet of thin celluloid should be interposed between the negative and printing surface of the paper. This is done to prevent the possibility of silver stains on the negative. Salt and particularly the ammonium chloride is hygroscopic, and because of its affinity for moisture it absorbs it from the air. Our paper should be dry before printing, naturally, but if "bone dry" we can not get the best results; there must be a certain amount of moisture in it, hence the ammonium salt. Were I working in a very dry climate I should reduce the sodium chloride and increase the ammonium salt to that equivalent amount. There is nothing in the whole process that is difficult, care is all that is needed.

In printing we should place the frame in the shade or if a dense negative in the sun under tissue paper, and prints should be carried somewhat darker than the finished picture is to appear.

After printing, wash prints for about ten minutes in a few changes of water, this is to eliminate all free silver and the citric acid, the first wash water will appear quite milky and the washing is continued until no further

(Continued on Page 20)

OUR WILD FLOWERS

Kindly Contributed by Our Readers

AMOLE OR SOAP PLANT

Among the many provisions made by Mother Nature for our needs, the Soap plant, growing on the hill slope and in wooded canyons, is notable. In California this plant makes its appearance in the early spring. The long, narrow leaves, somewhat resemble those of the field corn. The length of these leaves vary in different localities from eighteen inches to two feet. When mature, a tall slender blossoming stalk is sent up bearing delicate and attractive star shaped white flowers. The part of the plant, from which it gets its name, and is made use of, the bulb, consists of the smooth ivory-like layers which are wrapped in a fibrous brown coating.

We do not know how long ago the Indians discovered in this bulb the means of cleanliness but it was used as a soap in the early days of the California missions, and is still made use of by some of the older Spanish people.

The use of the bulb as soap is said to be an excellent preventative against poison oak, and many of our outdoor loving readers will find it not amiss to carry it for such a purpose.

This is one of the many wild flowers with an interesting history of its present and past value, which offers material for a world of study with the camera.—E. W. Fuller.





Entre Nous

(Between Ourselves)

By Frances Mathilda Purdy



Illustration by the Author



The prints on the walls
Of our salons and halls,
Nicely finished in lustre or matte,
Are not always the thing
We're expected to bring—
Some are pictures we caught
"Off the bat!"

With film-pack or plate,
Long we patiently wait
For conditions, good light—
this or that—
But the picture that won
Us our "place in the sun"
Was that picture we caught
"Off the bat!"

The fine genre we snapped,
Curving shore-line, wave-lapped,
Sunny landscape (we feared
might be "flat"),
That quite notable pose,
Cloud effect, perfect rose—
Are still pictures we caught
"Off the bat!"

So we think, as we view
Each new process and hue—
You must keep this under your hat—
That, beneath its disguise
Of "soft focus,"—we're wise—
Lies the picture they caught
"Off the bat!"

A New Lighting in Pictures

By W. Russell



With Illustrations by James E. Abbe

The moving picture industry may be credited with being the principal booster for artificial lighting for photographic purposes. Manufacturers of the appliances were encouraged in their research work with the knowledge that if they could produce, to meet certain requirements, the market was ready, even waiting for them.

It is not surprising, therefore, that many ingenious contrivances were put forward to meet these needs; and considerable sums of money were expended by producers in experimental work with the idea of introducing novel light effects.

Among the leading producers, striving after novelty in this line, may be counted Mack Sennett, and through his courtesy, we are able to give our readers some pictures of his famous girls under new lighting conditions.



THE FINISHING TOUCH

About six months ago, James E. Abbe, was spending some time in Los Angeles posing various screen celebrities. In that connection, he presented

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JUST A FEW OF THE FAIRIES

himself at the Sennett Studios saying he wanted to get some pictures of the Bathing Beauties. He was turned loose on the lot and took many effective photographs, all of them under artificial lighting. Abbe's work interested Mr. Sennett who one afternoon said to him, "Abbe, why can not the lighting effects you employ for still photographs be effectively used in motion pictures?" Abbe grasped at the question eagerly and explained that he had himself asked that question of all the leading producers whom he thus far had met, and said that in no case was a satisfactory answer forthcoming. He had been told that it could not be done, but when he pressed for a valid reason, none were forthcoming other than the general statement to the effect that light properly adjusted to a still subject could never be made fluent enough to follow that subject in action, and that in moving pictures the problem multiplied and became complicated in proportion to the number of figures involved.

After a discussion, it was agreed that Abbe should undertake a contract with Mr. Sennett and produce a picture lighted according to the principles that Abbe subscribed to in his still photography. It was understood, of course, that some essential compromise and adjustment would be made of the lightings in order to follow the moving figures, but that in all its

A NEW LIGHTING IN PICTURES



LITTLE MISS VANITY

essentials the effects Abbe achieved in his still photographs would be found on the screen when the film images were projected. These photographs were taken by Mr. Abbe in the middle of the action of his comedy and represent with considerable fidelity just what the screen will show when his picture reaches its release.

These pictures were made in the light studio at night. Abbe used spot lights, Cleeg lights and occasionally the flood lights which are Mack Sennett's exclusive possession. These latter are arranged in batteries and shine through bluish bulbs. With his spot lights adjusted sometimes above the figures and sometimes from the floor, the artist worked for his effects until found satisfactory. The action would then be ordered and the camera would be operated.

By this method of "freak lighting" some beautiful and startling effects were produced, and in some of the scenes the characters were made to appear from nowhere. From the blackness would dart zigzag flashes of light, faintly at first, in apparent confusion, but as the action developed, the light rays would gather and fashion themselves into forms that were human. These effects were baffling and destined to make a hit, for never before has this type of lighting been employed in motion pictures.

A hint to married men: Always pack your wife's letters with your tobacco and, you won't forget to mail them.—E. F.



Permanency of Lantern Slides

By W. J. Rodgers



We amateurs all lean toward some particular branch of photography from which we gain the most enjoyment. For my part, I have found by experience that the recording of our best work by means of prints, has through the use of what we commonly call "gas-light or developing" papers, deprived us of one "essential" and that is "permanency of print." While we might to a degree overcome this fault by exercising the greatest care in the manipulations, and through washing, I believe the best of us are prone at times to hasten through with this work, especially when we have made an unusual large batch of prints, and the hour is growing late. We might be reasonably sure of permanency were we to use "carbon" or "platinotype" paper, but there the increased cost of production, and the greater time consumed in print making, offers serious drawbacks.

Coming back to my story—my experience as a devotee of this most fascinating work, which I have followed in conjunction with cycling for over thirty years, has taught me that the conversion of one's best work, using the "Lantern Slide" as a means toward that end, has not only enabled me to let my friends enjoy the fruits of my labor, but has given me that which I most desired "Permanency" and at the same time an instinct monument of my best efforts.

If we study the beauties of nature and employ the art of coloring our slides, we add materially to the beauty of our pictures resulting in a projection more pleasing to the eye when viewed on the screen. Atmospheric effect so essential in picture making can, by the aid of color, be imparted in our picture, which otherwise is lost in black and white print.

There being many good books on the making and coloring of Lantern Slides, I shall not take up any of your time by going in great length on that phase of photography.

There is, as you know, two ways of making slides, one, if our negatives are of the exact size, by "contact printing" and the other method "reduction" by employing our camera in photographing our negatives. I prefer the latter, as my negatives are of different sizes, ranging from 5x7 down to $1\frac{5}{8} \times 2\frac{1}{2}$.

The next feature is "Development"—and a very essential one too.

To those who may feel inclined to try a new, or successful formula, I shall give them the benefit of one, being a combination of two old standard formulas, which I have used for years, and found to give the results desired. I mix my stock solutions, preparing sufficient for a month's use. Use four eight ounce bottles, mixing in the exact order given. This combination gives that detail and clearness of image so necessary for projection.

PERMANENCY OF LANTERN SLIDES



A PEACEFUL PASTURE

Stock Solution

No. 1:

Water (hot)	5 ozs.
Soda Sulphite (dry)	240 grs.
Eikenegen	83 grs.
Hydroquinone	40 grs.
Add water to make stock solution.....	8 ozs.

No. 2:

Water (hot)	5 ozs.
Carbonate of Potassium	240 grs.
Soda Carbonate (dry)	120 grs.
Add water to make stock solution.....	8 ozs.

No. 3:

Water (hot)	8 ozs.
Soda Sulphite (dry)	240 grs.
Hydroquinone	80 grs.
Potassium Bromide	40 grs.

No. 4:

Water (hot)	8 ozs.
Soda Carbonate (dry)	1 oz.

To Develop

For use:

No. 1, 1 oz.; No. 2, 1 oz.; No. 3, $\frac{1}{2}$ oz.; No. 4, $\frac{3}{4}$ oz.

Water, 3 ozs. (Temp. 65 to 70.)

Increasing amount of No. 3, gives greater blacks.

The above developer has the advantage of slow working, resulting in a gradual building up of the image. After placing plate in developer one can proceed with the making of next slide. This formula works well with any make of plate. The stock solutions put up in the four parts as above will not deteriorate for thirty or more days.

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PLAIN SALTED PAPER

(Continued from Page 12)

trace of this milkyness is noticeable. The prints are now ready for toning, though a pleasing color for landscapes may be secured by simply fixing the print at this stage.

The toning bath is made up as follows and should be prepared the day before; it improves with keeping, and when not in use should be kept in a dark place.

Acetate of soda	30 grains
Chloride of gold	1 grain
Water to	8 ounces

The chloride of gold is sold in little tubes containing 15 grains; a convenient way to use it is, to have a bottle which will contain 15 ounces of water, into this, having uncorked the tube of gold crystals, drop the tube, cork the bottle, and shake it a minute or so and the crystals will soon dissolve, each ounce of this gold solution will contain one grain of gold. If we work this way we shall only need seven ounces of water instead of eight, that ounce of gold solution when added makes up the total bulk of liquid to eight ounces. As there is no surface of gelatine to penetrate, toning is very rapid and a novice at the process is almost sure to overtone, which gives a somewhat bleached picture of an unpleasant bluish cast. For first attempt then let your print be in the toning bath not more than thirty seconds, turning the print over constantly so that the gold may be evenly deposited. Immediately after toning rinse in three changes of water and transfer print to the fixing bath, which is made as follows:

Hyposulphite of soda	1 ounce
Water to make	10 ounces

Fix prints on thin paper ten minutes, on thick drawing papers, fifteen minutes. Don't use this fixing bath for too many prints, replace it, do not carry it over, mix fresh bath when again needed.

After fixing, wash prints from one to three hours, the time is dependent on the thickness of paper used. The prints dry considerably darker and the color can not be accurately judged by the new worker until the print has dried. I might here mention that the first washings of the prints may be done in hot water, which greatly help in removing hypo quickly, but too long a treatment this way makes the paper tender.

I have tried to describe the whole process of plain salted paper fully, but if any reader on experimenting should meet with difficulties which he or she is unable to overcome, they should write, and I will gladly straighten out the tangle.

If you wish to attempt combination printing start a collection of negatives on film of odds and ends you may find on a knoll. The sky forms your background, but the light must fall on your object, for you must avoid a silhouette. If you work this way and the plate is properly developed, you will have the back-ground blocked out for you; this saves a lot of work.

—E. F.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

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No. 1

Louis Ducos Du Hauron

The history of inventions is usually a tangled skein of ideas and experiments leading over devious ways to the final results, and when we state that this man invented the steam engine, this man the telephone and that man the airplane, we usually are referring only to the final perfection.

In the history of photography something of the same sort is manifest, and yet more than in other cases it is possible to put our finger on certain names and say without much contradiction, these are they who have made possible what we now possess. If we go back nearly a hundred years, we may point to Nicéphore Niepce, and say, Here is the man who first made a photographic image and laid the basis of photo-engraving, as we practice it today; to Lous Daguerre, and say, Here is the man who gave us photographic portraiture; and when we speak of Louis Ducos Du Hauron, even more emphatically may we state, that to him almost alone we are indebted for the whole development of color as a part of photographic processes.

It is an interesting fact that whatever may be the doubt in regard to the history of discovery, that of discoverers is in no such obscurity, and one of the most notable things is that very few of them have personally benefited by their work. These thoughts arise on reading of the death of Ducos Du Hauron, who died recently in great poverty in France. When we think of the enormous capital and profits realized from photo-engraving and learn that Niepce was only too glad to receive from the French government a miserable pension of three hundred dollars a year for his rights; that Daguerre was content with very little more, and that Ducos Du Hauron, with a contribution to practical science and wealth production that is covered by the whole field of three-color printing, Lumiere plates, Paget plates and all the modifications of these that are yet to come, was given the starvation sum of two hundred and forty dollars a year, we have ground for believing that public appreciation and justice, insofar as inventors are concerned, is rather diminishing than otherwise.

What was it that Ducos Du Hauron did? As a young man of twenty-five, back in the early sixties, he perceived that the only way in which the problem of photography in natural colors could be solved, was to analyze the luminous image, register the different colored rays and by their re-combination again form a replica of a natural object. Whether this were to be by mixing the rays themselves, as we see in the Ives chromoscope, or by superimposing three color images, as is done in three-color half-tones, or by superimposition of colored films, as in the Sanger-Shepherd transparency, or by the many modifications of these fundamental methods, or lastly, by

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the entirely successful intermingling of color elements, as seen in the Lumiere autochrome, the dioptochrome and the Paget color plate, the ground principle is the same, and Ducos Du Hauron not only laid this down as a basic theory, but foresaw the various ways in which it was to be ultimately applied to give us the practical methods of today. Every inventor from that day to this has worked on his basis, and yet he himself is hardly known, even to the average photographer, and his reward was neglect and poverty. We have shown what the government did for him—the manufacturers who realized their great profits did, it is true, throw him a pittance from time to time; but the fact remains that he died a poor, almost hungry, old man. If it be asked how such a condition was possible, we have to reply, for two reasons: his thought preceded the conditions that could make it practicable, for, while he demanded color-sensitive emulsions, there were none available at that time; secondly he had no commercial ability, nor the persuasiveness to induce those who had the capital to use it in the development of his ideas, nor had he protected them from those who ultimately exploited them. In this he but repeats the story of inventors in many other fields. If there be one thing which is demanded in justice to the men who think out the future, and to the benefit of society at large, it is that the present system of patenting, or the present patent laws, be revised, and that the State be obligated to help those who are developing useful ideas, and to reward those who can demonstrate their claim to prior invention, whether the commercial application has been brought about by themselves or others. Lastly, we have to thank Ducos Du Hauron for laying down the principles of the motion picture, whose final perfection in color is again a product of his prevision.


The details of his life are unimportant to us, but its results are a stimulus to every serious worker in photography, for the problems of the present and the possibilities of the future are no less alluring than the successes of the past.—H. D'A. P.

Outdoor Portraiture

Amateurs should attempt some outdoor portraits in a more careful way than is usually done. The trouble with much of this work is "spottyness." It is difficult to give the proper relief to our subject if the background shows objects in equal prominence. Something must be sacrificed, and it would seem natural that this sacrifice should be made in the background.

To secure more satisfactory results, we must have recourse to certain modifications; our focusing must be more carefully done. We should place our subject just far enough forward of the background so that when the figure is sufficiently sharp our background appears "soft," that is somewhat out of focus. This little expedient will be found a great aid to a more pictorial result.

If it should be necessary to still further modify our negative to increase effect, we can do so by reducing contrast in portions of the background. For this purpose a little yellow color, in the form of a dye may be applied to those parts printing too darkly.—E. F.



PARAGRAPHS PHOTOGRAPHIC

Kindly Contributed by Our Readers

TO OUR FRIENDS—Tell us what you know! Perhaps you have had some photographic difficulty and overcame it—how did you do it? Tell us!

Perhaps you know some photographic "kink" that others would like to know—be generous, help others; tell us what you know!

These paragraphs are yours; to be used for mutual help: let us hear from you—

DRYING FILM-PACK NEGATIVES—In your December issue, V. W. H., New Hampshire, tells us his method of drying film-pack negatives. I have a way of drying film negatives, that beats his way, a mile. Get a paper of pins, a pair of pliers, and bend the pins so they form the capital letter S; stretch one or more strings across the room, six or seven feet from the floor; hook the bent pins in a corner of the pack-films or at the end of roll films, and hang them on the strings to dry: That's all.—T. A., Colorado.

FOR THE PRESS—In my business as artist for a daily newspaper I am on occasions called upon for a picture in a real hurry. Perhaps something sensational has happened; and we need a picture for an afternoon edition; we go about it this way. The photographer with his instructions from the city editor goes to the location with his outfit; he possesses a sort of instinct that he had better not forget anything.

The plates come to the dark room, are developed, fixed and rinsed; a sheet of thin celluloid is laid on the negative, a piece of developing paper is wetted and placed in contact with the celluloid, and a print made from it; at times an enlargement is required, this is accomplished in the usual way, but from the wet negative; the resultant print in either case after rinsing is stuck behind the copy-glass to which it adheres perfectly while wet, from this then the half-tone negative is produced.

If, on the other hand, it should be necessary to add something to the print on account of faulty negative, or to bring out certain salient features, the print must be dried. After rinsing the print it is pressed between blotters to remove surplus moisture, then it goes in a bath of alcohol which removes still more of the water; the print is lifted out of the alcohol bath, allowed to drain, and a lighted match applied, the alcohol remaining on the paper is ignited and the print is dry.—F. A. Illinois.

Theory is great as a foundation for research work, but for the average, the practical is short cut to a "full dinner pail."—E. F.

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

Desensitol: A Remarkable Departure

After being condemned to the use of red light in the dark room for so many years, the advent of panchromatic plates added still further to the discomfort of photographers, many of whom found total darkness preferable to the very dim light in which alone such sensitive material could be handled. It must have struck many that one of the most welcome departures which could be made in modern photographic processes would be some invention by which a plate or film after exposure could be made almost, if not quite, insensitive without in any way interfering with the latent image existing in it. Such an invention would revolutionize the lighting of the dark room, and, incidentally, would give a great incentive to panchromatic work.

It has long been recognized that certain compounds lowered the sensitiveness, or at any rate the color-sensitiveness of emulsions. Recent discoveries have carried this a stage further. Very weak amidol solutions, for instance, have an effect in this direction; and another substance, a dye known as Pheno-saffranine, has proved more effective still. This, however, is not easily obtainable in this country in a sufficiently pure form, so that its use has only been experimental.

As our readers doubtless observed from an advertisement in last week's issue, Messrs. Ilford, Ltd., have now introduced a concentrated solution known as Desensitol, which allows any photographer at a very small cost to make a practical trial of development by candle light. The working solution consists of one part Desensitol made up to fifty parts with water. It has a bright red color, and is said to keep indefinitely, and can be used over and over again until it is exhausted. In this connection, exhausted does not mean that the solution deteriorates with use, but merely

that it is absorbed by the gelatine and gradually used up. It is probably best to keep the desensitiser in a dark-colored bottle.

The exposed plate or film has merely to be bathed for a minute or more in the weak solution, and is then ready for development in any ordinary developer. The bathing may be done in any light with which the plate is normally safe, or, if preferred, in complete darkness. When the plate has been bathed, however, it may be exposed to candle or gas light during the course of development, but such exposure should not be more than is really necessary; as, although the action of the solution is to reduce very greatly the sensitiveness of the plate, it does not entirely desensitise it.

Our first trials were made by the light of a candle, which was about 5 feet from the dish in which the plate was developed, the plate itself being a rapid orthochromatic one, labeled 400 H. and D. The resulting negative is as clean and free from fog as another one out of the same box which received the same exposure, but was developed by the ordinary safe light in the dark room.

It is preferable to fix in an acid bath containing potassium metabisulphite, but this is not essential—in fact, in our experiments a plain hypo bath was used. After the fixing bath, even when an acid bath has been employed, the plate will be found to be stained red, and special means of bleaching it can be used; but actually there is nothing better than soaking in plain water, and the usual washing removes most of the red coloration.

In the case of panchromatic plates, the desensitising effect is not so extreme as in the case of plates which are not so color sensitive, but the action is sufficiently marked to enable them to be developed in the way described. Ordinary plates which

A PHOTOGRAPHIC DIGEST

are not orthochromatic can be developed in such a light as that given by an incandescent gas burner, provided this is some little distance away, and the dish is shaded from direct light by the photographer's body, or in some other way similar to that in which one would develop a gaslight print.

We reproduce the above description from the "Amateur Photographer" and the preparation is along lines that may ultimately be of great value, but it does not seem to overcome the initial difficulty that plates must be placed in the holders, and what is worse, removed therefrom and immersed in this bath. How this is to be done without light falling on them is not made apparent.—H. D'A. P.

Combined Development and Fixing

Some few weeks ago we had occasion in a leading article to refer to the subject of simultaneous development and fixing of exposed plates. We expressed the view that for certain classes of work the matter was worthy of further attention, and that we were not alone in so thinking is evident from the appearance in the present issue of a communication by MM. Lumière and Seyewetz dealing with the same subject.

Although relatively short in length, the communication is interesting, in that it brings together all important results which have hitherto been published, and criticizes them in the light of further experiment. It is clear that prior to the work of C. Otsuki and T. Sudzuki there was no formula of any practical value for a combined developing and fixing solution. The fortunate selection by these workers of Quinomet and its use in conjunction with caustic soda resulted, as MM. Lumière and Seyewetz agree, in the publication of the first process, capable of giving anything approaching normal negatives. Further, the present communication supports the conclusion that, so long as "hypo" is relied upon to effect the fixation the results are likely to be of greater value the more energetic the developer employed. It was only to be expected that, when the present authors took up work in this matter, they would try quinomet, since, as discoverers of the product, their knowledge of its

characteristics would be unique. To them also an obvious variation would be the substitution of chloranol, which, by virtue of the chlorine atom in its hydroquinone element, is more active than quinomet. Judging by the formulae given in the communication, however, the increase of activity is not very marked; similar development times are quoted for both solutions. The times stated, viz., twenty-five to thirty minutes, seem to be quite at variance with the findings of Otsuki and Sudzuki, who, with quinomet made up almost identically as is now recommended for chloranol, obtained fully-developed negatives in about two minutes. It is well known, of course, that the time required for fixing varies enormously with different emulsions, and it is, perhaps, on this account that such a marked difference occurs between the recommendations of the earlier and the later workers.

In the present communication the use of caustic soda is deprecated, because of the uncertainty of the strength of this product, but the use of tribasic sodium phosphate is in some measure open to the same objections. The "commercial" tribasic salt is of very doubtful composition, and we would caution anyone who intends experimenting to procure the pure salt. It can, of course be made by the addition of the requisite quantity of caustic soda to the ordinary (dibasic) phosphate of soda; and, once prepared, its composition remains constant. The worker, however, who possesses the requisite knowledge and skill for the compounding of the tribasic phosphate would no doubt prefer to make up the developer with caustic soda direct, particularly when it is remembered that with tribasic phosphate as the alkali "the results are less clear" than those obtained by the use of caustic soda.

On the whole, the present communication does not perhaps take us much further than Messrs. Otsuki and Sudzuki got in 1914. No doubt MM. Lumière and Seyewetz will continue their work, using still more active developers, and we look forward with interest to the publication of any further results.

CAMERA CRAFT

Improvements in the Simultaneous Development and Fixing of Plates

The problem of combined development and fixing of photographic plates has attracted the attention of many experimenters, who have sought to solve it by the addition of suitable quantities of hyposulphite of soda to developing solutions compounded in a manner specially adapted to this kind of process.

Punnett¹ attempted, along these lines, to add hyposulphite of soda to an ortol developer for the development of chloro-bromide plates. Hanneke², in 1889, pointed out the use of a pyrocatechin developer in conjunction with caustic soda as a means of permitting the use of a large quantity of hypo-sulphite³. V. Crémier⁴ has given the formula of a diamidophenol developer, made up with sulphite and with addition of hyposulphite of soda. According to this author this developer, which decomposes very rapidly, serves particularly for the combined development and fixing of chloro-bromide plates and papers. Gaedicke⁵, as the result of examining Crémier's formula, entirely disputed its practical value. More recently Chiri Otsuki and Takashi Sudzuki⁶ have repeated Crémier's experiments, but obtained no better results than Gaedicke, although varying the relative proportions of diamidophenol, sulphite and hyposulphite of soda. On the other hand, they succeeded in obtaining good results by means of metoquinone developer, made up with addition of sodium hyposulphite and caustic soda. When the caustic soda in this developer was replaced by alkaline carbonates, the negatives were of poor vigor and lacking in gradation.

The results obtained by Otsuki and Sudzuki have been confirmed by Valenta⁷, who has given a disodic pyro formula, which, however, does not appear to possess any practical interest, since the solution rapidly decomposes, and gives negatives of poor vigor, whilst also staining the gelatine.

In the course of our work on this process of combined development and fixing, our experiments have confirmed those of Otsuki and Sudzuki, which are superior in practical value to those of earlier experimenters.

But the production of satisfactory nega-

tives requires a considerable degree of over-exposure.

Our experiments have been made with the aim of improving the formula of Otsuki and Sudzuki and also of replacing the caustic soda by a substance of more constant composition. We have also made experiments for the purpose of discovering if chloranol⁸, the constitution and developing properties of which are closely allied to those of metoquinone, yields similar results.

In the course of a large number of experiments, we have systematically varied the relative proportions of metoquinone or chloranol, of sulphite, hyposulphite, and caustic alkali. We have also made comparative tests of the action of other alkalies, namely, caustic potash, caustic lithia, ammonia, aldehydes, acetone and tribasic phosphate of soda.

Caustic potash and caustic lithia behave similarly to caustic soda, but they have the same drawbacks as the latter, namely, uncertainty of composition, and require to be used in the form of a titrated solution.

The use of ammonia leads, in every case, to weak negatives, showing fog and very poor gradation. Among the substitutes for the alkalis, aldehydes and acetone behave like alkaline carbonates, and likewise give weak images lacking gradation. On the other hand, tribasic phosphate of soda is similar in its action to the caustic alkalies, which confirms the observations which we made some years ago⁹ on the use of this substance as a substitute for caustic alkalies in developers. The following are the developing formulae which we have worked out after numerous comparative tests:

Formula No. 1

Soda sulphite, anhydrous.....	32 gms.
Chloranol	6 "
Caustic soda (real Na HO).....	5 10"
Soda hyposulphite.....	60 "
Water	1,000 c.c.s.

Formula No. 2

Soda sulphite, anhydrous.....	32 gms.
Metoquinone	6 "
Tribasic soda phosphate	100 "
Hypo	40 "
Water	1,000 c.c.s.

It is to be particularly noted that in formula No. 1 the caustic soda may be

A PHOTOGRAPHIC DIGEST

replaced by 140 gms. of tribasic soda phosphate, in which case only 48 gms of hypo, instead of 60 gms. is used.

These developing formulae give negatives the clearness, vigor and gradation of which compare favorably with those obtained by the ordinary method of separate development and fixing. With formula No. 2, however, the results are somewhat less clear.

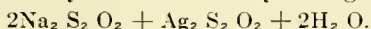
In the case of gelatino-bromide negative plates the time of combined development and fixing with the above solution is about 5 to 30 minutes at 65 deg. F. Development takes place automatically and may be done in a vertical tank in the darkroom; the plates may be withdrawn in full daylight as soon as the the process is finished.

Over-Exposed Paper

Combined development and fixing allows of better results being obtained from over-exposed negatives than by the customary processes of separate development and fixing. For the same degree of over-exposure the plates treated by the combined method exhibit a gradation which frequently could have been obtained when using the ordinary method, only by a very great modification of the developer for the purpose of correcting over-exposure.

Minimum Quantity of Solution to Be Used

In order that the negatives may be of assured permanence it is necessary to use the developing solution in quantity sufficient for the formation of the double hypsulphite of silver and sodium which requires to be formed in fixing and which corresponds with the following formula, obtained by ourselves some years ago¹¹:—



If this is not done, the double salt is deposited in the film in the course of washing. Now a 9x12 cm. plate of average thickness of coating contains about 0.25 gm. of silver bromide, requiring, for the formation of the soluble double salt, 0.5 gm. of hypsulphite of soda. Therefore, for the development of a plate of this size, 50 c.c.s. of the developing solution will be sufficient, since its content of hypo is from 2 to 3 gms. according as one uses formula No. 1 or No. 2.

Developing Paper and Lantern Slides

The No. 1 combined developing and fixing formula is the most suitable for the

development of chloro-bromide plates and papers. Nevertheless it is advisable, when using these sensitive materials, to double the normal time of exposure. With papers it will be necessary not to develop for longer than two minutes, otherwise the purity of the whites will suffer. Papers containing only silver bromide cannot be developed by this method since they give considerable fog.

Potass bromide appears to be without effect in reducing this fog.

Summary

In certain cases the method of combined development and fixing which has been described may replace with advantage the ordinary method of developing, particularly in circumstances in which it is desired to employ a process requiring no supervision. According to the method the plate is simply treated in the combined developing fixing bath for a sufficient time, which is about thirty minutes. In the case of papers this time is about two minutes.

Inasmuch as a longer period of immersion in the developing-fixing solution is without effect, and as the illumination of the dark-room is greatly simplified when employing this process, it will be seen that this form of development may at times be of distinct service, particularly as regards the regularity of the results which it yields on plates which have been over-exposed.

A. and L. LUMIERE.

A. SEYEWITZ.

1. "British Journal of Photography," 1898, p. 126.
2. "Photographische Mitteilungen," 1899, p. 141.
3. A developer composed of pyrocatechin and hypo was issued commercially as "Elkonal," but the unsatisfactory results which it gave greatly limited its use.
4. "Photo-Revue," 26 (1911), p. 170.
5. "Eder's Jahrbuch," 1912, p. 6.
6. "Photographische Korrespondenz," 1914, p. 214.
7. "Photographische Korrespondenz," 1914, p. 347.
8. It may be recalled that metoquinone (which is a combination of 2 molecules of methyl-paramidophenol and 1 molecule of hydroquinone) and chloranol (which is formed by 2 molecules of methyl-paramidophenol and 1 molecule of chlor-hydroquinone) both resemble diamidophenol in possessing the property of forming working developers without addition of alkali. They are at the present time the only developing substances which, while possessing this property, can also be used in conjunction with an alkali, either carbonated or caustic, for increase of their developing power without causing rapid decomposition of the solution, staining of the gelatine, or production of fog.
9. Bulletin de la Societe Francaise de Photographie," 1895.
10. This weight of caustic soda, calculated as NaHO is added in the form of 50 c. c. s. of a trituted 10 per cent solution of Na HO.
11. "Bulletin de la Societe Francaise de Photographie," 1907.—B. J. of Photography.

THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes

Our Wild Flowers

Have you ever, when walking in the country, picked a wild flower and said, "I wonder what's the name of this?" You were interested, or you would not have noticed it, would you?

A whole lot of people are attracted by the beauty of wild flowers, and many would like to know a little more about them.

Among our readers are many good photographers; let us work together!

What we wish to do is, to publish a good cut and a short description in each issue of CAMERA CRAFT of some wild flower, or useful plant.

Will you contribute one photograph during this year? It will be quite interesting, and we shall all learn more about our wild flowers.

You will notice we have started in this issue with No. 1—The Soap Plant, contributed by E. W. Fuller, we hope you will be interested; perhaps the article gives you new information, that is just our intention; to give pleasure—to give satisfaction.

Here are some pointers which may help. When photographing for this particular contribution, make your negative just as sharp as you can, and have everything just as natural as it can be. Though not absolutely necessary, remember a color screen is often a wonderful aid. If you have only a hand camera, don't think you are out of the running, measure your distance carefully, and use a portrait attachment.

With the photograph, we shall need a short description, tell us anything that will help to further identify the subject, where it grows, its size, the color and size of the flower; let your article be about 200 words. It does not matter if you are not in the habit of writing, we will dot your I's and cross your T's 'n everything.

Mist Pictures

Quite a number of amateur photographers have the idea, that to make a good photograph, we must have an abundance of light. This idea has taken possession of them probably owing to the fact, that practically all novices with the camera, begin their photographic career with the snapshot, and many go careering through their comparatively short photographic lives snapshotting.

This kind of work often leads to disappointment, for seldom do we produce work that is worth while from a pictorial sense. As a souvenir getter the snapshot leaves little to be desired, but for pictures, give me a tripod, and for good measure, throw in a ground glass. I feel so much surer when I can see the picture on the screen. It is so comforting to know that one has the best view obtainable from that chosen position. Did we not turn the camera on our tripod, first a little to the right and then to the left, before we decided on just the view, before we put our plate or film holder in its place? Did we not have a good chance to make sure whether our camera was plumb or just anyhow? And when we made our exposure we felt differently, and why not? We did not have to peek into a dinky view finder, and neither did we when we pressed the button, do so, with the hope that every thing was alright.

Of course, all the preparation and care we exercise when using a tripod may strike some as pretty slow, and it does seem a lot of preparation for an exposure which may be of only half a second or at the most, possibly one second, but there is a tremendous difference between half a second and a twenty-fifth of a second, it may mean you get it, or you don't get it.

Presuming you are one of those amateurs that do not "shy" at a tripod, let me persuade you to try some mist pictures.

THE AMATEUR AND HIS TROUBLES

Perhaps you are a worker, six days a week, and you claim Sunday morning as your own—yes sir! your very own; but try it once. It is horrible to contemplate arising on a Sunday, perhaps a little earlier even than on a work day, but try it once, and get out in the fields, in the mist. You will see another land, to what you would gaze on at ten o'clock, something totally different.

Corot, the painter, made his name by the help of morning mists, they appealed to him, and his pictures appeal to us.

The great trouble with most photographers is, the lens shows too much. All we really need is just that in the picture which appealed to us, the rest must serve as support. We may have been attracted by an old farm house, and behind it are out-buildings and trees and if we were to photograph it in a so-called good light, we may have a jumble, everything is mixed, because it is so clear; this may sound contradictory, but it really is not so, as far as the picture is concerned.

There is a moment in the morning when that old house may be more than merely beautiful. There is a time when most things are still and the curtain of mist is rising; and, that is your time. Objects in front and near you will show sufficiently clear, objects behind, and the distance, are still shrouded—indeed, that is your time.

The Rectilinear Lens

There was a time when we amateurs thought pretty well of ourselves if we owned a rectilinear lens, of course that was quite a little while ago, and we were quite simple in our tastes. The anastigmat was unknown then, though there were whisperers of it. And I remember the first print that I saw, made with an anastigmatic lens, it was on a very glossy paper, a view of some barrack-like building, taken square on. The idea naturally, was to show the flat field of the lens, and it certainly did. The lens was made by Goerz, and the print caused a sensation among some of us young fellows. It was fortunate for me that for my own amusement I did not need just then, a lens so good as that; I did not even enquire the price, for I had a hunch it was expensive; I am a believer in hunches, even to this day. And it was just

as well I heeded my hunch, for I was able to go on blythely, working with my rectilinear, and many a prize I won with that rectilinear.

Once I sent in two heads for a portrait competition in New York, there was offered a silver medal for the first prize, and a bronze one for the second, and believe me, friends, my rectilinear won both prizes.

Then there was a fine silver cup in Boston, it was called the grand prize, and sure enough that rectilinear brought the prize home to me. You would tire if I told you all that rectilinear did for me, both in this country and abroad.

If you will turn to page 9 you will see a print made by that rectilinear lens in an ordinary room, and that was twenty-five years ago.

Perhaps some reader would like to take up photography but hesitates, because what we call good lenses today, cost money. But why wait? Lenses of the rectilinear type are now a little better than they used to be, and they are quite moderate in price. Or, one may buy the old type of rectilinear, the same as I used, from certain dealers for a very small sum.

It is a good idea to get in the game now, and experience the joy of it. We can learn a lot from even a very moderate priced outfit, and when we purchase an anastigmatic lens later, we will appreciate it the more.

Copying

I can assure you, it is worth while to become familiar with copying; you will learn much about exposure and development. In copying your light must be even on the copy, and your exposure time should be exact.

If your original is contrasty, use a plate of medium speed; if inclined to flatness, a slow plate is preferable. A backed plate is an advantage. Give a full exposure and never force development. In developing the negative made by copying, one is apt to feel disconcerted at the flat appearance of the image in the developer; there is naturally a tendency that way, for the lights in our original, represented by white paper or white paint, are dull as compared to light itself. We therefore adopt a method inclined to contrast, by using slower plates and, if necessary, a modified developer.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

A. E. Davies, General Secretary, 1327 Grove St., Berkeley, Calif.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

John Bieseman, Director Post Card Division, Hemlock, Ohio.

James B. Warner, Director Stereoscopic Division, 413-415 Claus Spreckels Building, San Francisco.

A. E. Davies, Director Lantern Slide Division, 1327 Grove St., Berkeley, Calif.

To Our Members—Greetings

CAMERA CRAFT is the official organ of this association. It has been a long time since I addressed you through its columns. In not doing so I really had nothing of importance to say. I felt that the space I would take up could be used to a much better advantage.

As our membership has greatly increased in the past five years, there are many of you who do not know the past efforts to build up the association to its present strength.

In writing the following, words almost fail me in so doing, as I have not as yet recovered from the sad news, that our old friend and secretary had traveled to the Great Beyond, and which to me does not as yet seem possible.

You have all read in CAMERA CRAFT and the circular that was mailed you, that "Clute was Camera Craft and Camera Craft was Clute." I wish to advise that this also applies to the I. P. A., for this association was also a monument he himself builded. So this association with OUR help must and shall endure.

It was in the year of 1901 that I had the honor to become a member, of what was then called the I. P. E. (Exchange). Our dues were fifty cents a year, a member, which included a little monthly paper of four to six pages, called the I. P. E.

Mr. Robert Kirkland (now deceased) was president and Clute, secretary. Mr. Kirkland, a Denver boy, was a good friend of mine, and called me in to help him and Clute to try and build up a new and larger membership, which was done. Then Mr. Kirkland passed away, and my old friend Clute prevailed upon me to become president, which I accepted and tried to do my share of the building up, but it was the tireless efforts of our late secretary that did the work; I only helped. Then came the earthquake and fire in San Francisco, at which time only a few records were saved. Mr. Clute, almost alone and nothing daunting, with love for his own and kindred tastes, went ahead with the work; work that many of us would have hesitated to do. He wrote me at Denver, sent photos for cuts and copy for CAMERA CRAFT and many of the old members will remember the magazine was again in their hands. It was at this period that we decided to cut out the I. P. E., make CAMERA CRAFT the official organ and change the name of Exchange to Association. For awhile things ran in a smooth channel, then came the war and the dates of publication fell behind. You now have before you the new dates of publication, and are assured that it will be up to date by the end of the year.

Our new Editor, Associate Editor and Secretary are making, and will continue to make every effort to keep CAMERA CRAFT and our "Association" at the head of the class.

As president of the Association (and I know it would be the wishes of Mr. Clute, were he still with us), I wish to ask of you, each and every member, to give all the aid and support you can consistently give, to our new General Secretary, A. E. Davies. I especially ask the support of the State Directors, their Secretaries and Album Directors. We have never gone out and

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

solicited members to any great degree. Let us now do so and build up our Association, that will stand as a monument to one who has passed away. We can do this by just dropping a word here and there or by handing or sending out a membership blank, which the Secretary will furnish. Let us all get together and do this.

May I have your co-operation?

Sincerely yours,

F. B. HINMAN.

STATE SECRETARIES

California—A. E. Davies, 1327 Grove St., Berkeley.
 Colorado—H. E. High, 1023 Champa St., Denver.
 Idaho—Eugene Clifford, 902 9th Ave., Lewiston.
 Iowa—Harry B. Nolte, Algona.
 Kansas—H. H. Gill, Hays City.
 Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.
 Missouri—J. F. Peters, Room 210 Union Station, St. Louis.
 New York—Louis R. Murray, 21 Clark St., Ogdensburg.
 Oregon—F. L. Derby, La Fayette.
 Texas—Emmett L. Lovett, care Southern Electric Company of Texas, Wichita Falls.

ALBUM DIRECTORS

Alabama—Richard Hines, Jr., Barton Academy Bldg., Mobile.
 California—W. E. Thomson, 3211 School Street, Fruitvale.
 Colorado—O. E. Aultman, Pleased Bldg., Trinidad.
 Florida—Capt. E. S. Coutant, Lock Box 73, Stuart.
 Georgia—L. O. Surles, P. O. Box 434, Cuthbert.
 Idaho—Eugene Clifford, 902 9th Ave., Lewiston.
 Illinois—George A. Price, Box 286, Champaign.
 Indiana—H. E. Bishop, 551 E. 40th St., Indianapolis.
 Iowa—C. W. Parker, Mapleton.
 Maryland—E. G. Hooper, 218 East 20 Street, Baltimore.
 Massachusetts—John Mardon, 10 High St., Boston.
 Michigan—W. E. Ziegenfuss, M. D., 171 Riehton St., Detroit.
 Minnesota—Leonard A. Williams, 622 2nd Avenue South, St. Cloud.
 Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.
 Missouri—Wharton Schooler, R. F. D. No. 2, Eolia.
 New Hampshire—Mrs. A. Leonora Kellogg, Box 224, Londonderry.
 New Jersey—Arthur H. Farrow, 51 Richelieu Terrace, Newark.
 New York—Charles F. Rice, P. O. Box 517, Maroneck.
 North Dakota—Jas. A. Van Kleeck, 619 Second Ave., North Fargo.
 Ohio—J. H. Winchell, R. F. D. No. 2 Painesville.
 Pennsylvania—L. A. Sneary, 2822 Espy Ave., Pittsburg.
 South Dakota—C. B. Bolles, L. B. 351, Aberdeen.
 Texas—J. B. Oheim, P. O. Drawer M, Henrietta.
 Utah—John C. Swenson, A. B., Provo.
 West Virginia—William E. Monroe, Box 298, Point Pleasant.

NEW MEMBERS

4884—Dan H. Reese, Paradise, Cal.
 3¼x5½ developing paper, clouds, scenic, water; for clouds, scenic, historic. Postcards only. Class 1.
 4889—Charles J. Louzberg, 54 Henry St., New York, N. Y.
 Class 3.
 4890—J. J. Drahowzal, 740 East 133rd St., New York, N. Y.
 Class 3.
 4891—Hugo Koehn, P. O. Box 609, Houston, Texas.
 3¼x5½, 4x5, 3¼x4¼, Azo and Velox of scenics, genre, figure studies, nudes and daring girl poses; for figure studies, nudes and daring girl poses. Class 1.

4892—Oscar Allen, Harrisburg, Texas.
 5x7 of general views for the same. Class 1.
 4893—Oliver Bolme, Enloe, N. D.
 Class 2.
 4894—Clifford J. Peterson, 561 So. 3rd East, Brigham City, Utah.
 Class 2.
 4895—Paul A. Wolf, 707 Eleventh St., La Salle, Ill.
 Class 2.
 4896—Joseph Bartunek, R. F. D. 1, Rockville, Nebr.
 Up to 5x7 and postcards. Developing of miscellaneous marine views, war scenes in France and wild animals; for views of general interest.
 Class 1.
 4897—C. W. Gibbs, Jr., 52 Linden St., Rochester, N. Y.
 3¼x4¼ to 5x7 and enlargements. Artura of still life and landscapes; for general, figure studies, still life and portraits, genres. Class 1.
 4898—A. B. Gilliland, care of Lewis Hubbard & Co., Charleston, W. Va.
 2¼x3¼ to 3¼x5½. Developing of various subjects for anything of general interest. Class 1.
 4899—Anton Berest, Route 1, Box 12, Trondale, Alabama.
 3¼x5½ Graflex. Azo of views of outdoor, shop, machinery, genres; for same and foreign views.
 Class 1.
 4900—Clair C. Crist, 603 So. Pine, Centralia, Ill.
 Class 2.
 4901—Miss Esther Riese, 53 Frederick Ave., Oakwood, Mich.
 2¼x4¼ developing of picturesque views along small streams, Detroit Parks and vicinity; for pretty scenes. Class 1.
 4902—S. W. Dodd, R. F. D. 35, Box 100, Barberton, Ohio.
 Class 2.
 4903—L. A. Thompson, Talmage, Utah.
 Class 2.
 4904—A. V. Stubenrauch, 16 Wright Bldg., Berkeley, Cal.
 Class 3.
 4905—J. L. Beard, P. O. Box 182, Coalwood, W. Va.
 2¼x3¼ Eastman of historical, travel and sports, hunting and fishing; for same. Class 1.
 4906—Takeharu Nakamura, Ubumi, Hamana-gun, Shizuoka-Ken, Japan.
 Vest pocket Autographic Kodak, Azo, Velox, Angel and Iris postcards of photos of beauties, actresses and views; for views of general interest.
 Class 1.
 4907—Glen C. Craig, Box 138, Fayette, Ga.
 Class 2.
 4908—George E. Lahrs, P. O. Box 889, Dakota City, Nebr.
 4x5, 3¼x4¼, 2½x4¼, Azo, Cyko and Velox of nature scenes and interesting scenes; for panorama views and nature scenes. Class 1.
 4909—Horace Johnson, 199 Market St., Santa Cruz, Cal.
 Class 2.
 4910—Arthur O. Kastler, 3125 Chestnut St., New Orleans, La.
 2¼x4¼, 5x7 and smaller. Semi-Matte and glossy D. O. P. of street scenes, architecture, portraits and river views (Mississippi); for action pictures, genre, portraits and landscapes. Class 1.
 4911—E. J. Darling, Perkasio, Pa.
 Class 2.
 4912—Edwin Heideman, 5 East 167 Bronx, New York, N. Y.
 Class 2.
 4912—Clayton Wollwend, R. F. D. 4, Box 11, Lidge-wood, N. Dakota.
 Class 2.
 4914—Samuel F. Lawrence, 1247 Oakland St., Shreveport, La.
 2¼x3¼ Semi-Matte of miscellaneous; for scenic, sunsets and freaks. Class 1.

RENEWALS

3254—Vernon W. Hutchins, 39 Academy Square, Laconia, N. H.
 Class 2.
 3770—J. William Harmon, P. O. Clerks Box, Oklahoma City, Okla.
 3¼x5½ and 5x7 contact prints and bromide enlargements up to 8x10 of good pictorial work, landscapes with and without figures, cloud effects, etc., and marines; for same, very best work only. Class 1.

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

CRAFT NOTES

Reported by William Wolff.

Roy Curtis of Reno, Nevada, expects to have more help in his Kodak shop May 1st.

C. C. Green, formerly of Salinas, and recently of Pasadena, was in San Francisco looking for a location.

Frank Gordner, Reno, bought a new Hup sedan recently.

H. R. Brinsmead returned from Australia and is again located in Reno.

Edw. R. Freeman has a pretty little Art Kodak Shop in Palo Alto.

The Ettter Photo Shop of Haight Street, has added a Pa-Ko printer to their already well equipped place and expect to put in a Pa-Ko washer next month.

F. G. Kinman of Fillmore Street, is also a Pa-Ko printer victim. They're all doing it.

Frank Davey's son has left Palo Alto for Rochester, where he expects to go through the Eastman factory.

Here's another one: W. F. Burhaus, San Jose, came to the city and bought a Pa-Ko printer.

Mrs. Wm. Lussier, wife of the late Wm. Lussier of the Cramer Plate fame, is now located with J. C. Gordon of San Jose in the commercial line.

The writer is going East shortly, in the interest of Probus products. Geo. A. Dolan will have full charge of the plant while the writer is away. Send him an order and see how quick he will fill it.

When the writer calls on you, be sure to give him your subscription to Camera Craft for one year, at least.

About Lenses

"The right lens is an investment, not an expense—an investment that will pay daily dividends in better negatives and finer workmanship." The truth of the above is so apparent it needs no comment.

We have just received an excellently gotten up booklet from the Wollensak Opti-

cal Company, of Rochester, New York, descriptive of their lenses; and to add interest, there are reproductions in picture of the work their lenses will do. The first illustration to attract attention is a home portrait group, and the family dog. The dog is so often regarded as "one of the family," that it may be counted as next to the baby, and it is a thousand to one that the owners want that dog included in the picture, and also that there are great odds the photographer thinks quite differently: What is that but another way of saying the lens must be O. K., and this picture was made with the Velostigmat Series II, F:4.5, this booklet will tell you all about this truly general utility lens.

The Vitax Portrait, F:3.8, is a professional's favorite, it is the lens especially suited for child portraiture, giving beautifully that stereoscopic effect which adds charm to portrait delineation.

The Verito Diffused Focus, F:4, a pet of the pictorialists, both professional and amateur. A very satisfactory portrait and an interesting genre subject both the work of this lens, are given as illustrations of the pleasing and artistic results obtainable through the Verito.

Workers, professional and amateur, will find the Wollensak booklet both informative and interesting.

First Annual Exhibition

The prize exhibition of pictorial photographs held in the galleries of the Kansas City Photo Supply Co., Kansas City, Mo., proved such an attractive display, that it was decided after this exhibition, the pictures should be removed to the Kansas City Art Institute on account of their educational value.

The judges were, Conrad Hug, Jr., Virgil Barker, Horrace Lapierre, Purd Wright and M. B. Nicholson.

The following exhibitors received the principal prizes: Dr. Rupert Lovejoy,

NOTES AND COMMENTS

"Between the Lines"—"Dawn"—first prize, \$100.00; W. A. Alcock, New York, N. Y., "A Lonely Virgil,"—second prize, \$50.00; George W. French, Newark, N. J., "Bending to the Task"—third prize, \$25.00.

An All Season Business

Home portraiture undoubtedly may be called "an all season business" and the photographer provided with a Halldorson Portrait Flash Lamp is able to secure his share of the extra money.

A flash lamp is not to be regarded as an expense, it positively is—a money getter—it can earn for you when business at the studio is slack during off-seasons; it can earn money for you in the evenings, when your studio is closed.

The flash-lamp—it is the pass key to the home—a real asset in widening your business circle—it just naturally brings you new customers.

There is a style for every requirement. There is a folder, "The Way to Successful Home Portraiture"—free. Get this folder; it may give another idea for the profitable use of time.

The Halldorson Company is located at 1772 Wilson Avenue, Chicago, Illinois.

Developing Your Business

This is admirably done by adopting Perfection Developing Tanks, for they undoubtedly increase your efficiency, and register on the target of success a perfect bullseye.

The Perfection Developing Tank system is listed among the supplies furnished by the Northern Photo Supply Co., Minneapolis, Minn., and when in want of anything for the finishing department, be sure to get their large assortment of literature describing all the latest in this line. It will pay you.

This Company's advertisement is carried in another section of our pages.

The Welsh Rapid Photo Printer

There is a new advertisement worth looking up in this issue, the one of the Welsh Rapid Photo Printer, now ready for the market from the Co-operative Machine & Tool Co., 915 Washington Ave. So., Minneapolis, Minn. There is a finishing room down in San Antonio, Texas, that has been using twelve of them for about three years, and several other users have kept one or

two in operation for a like period with every possible degree of satisfaction. They have done the work, done it well, stood up as well made machines should stand up, and given the speed that counts for so much in the amateur printing room. They are not an experiment, either in their application to actual use or manufacture. The original printer has of course been improved upon in a few minor details, mainly of construction, so that now they are ready for the market the manufacturers are sure they will have only pleased customers to assure them a growing demand.

Johnson's

This notice is not intended in any way to introduce to our readers the name of Johnson & Sons, Manufacturing Chemists, Ltd., London.

We merely wish to draw attention to their new and reduced prices, which will be found in their advertisement on another page, they affect Pyro and Hydrokinone.

The goods are the same as always, pure and reliable, the price only has changed.

Something Different

In the March number of "Kodakery" we are given the idea of a novelty, something that any one can do. Vegetable Vaudeville, what does that suggest to you in the way of pictures?

Cartoonist Bradford has written and illustrated an article entitled, "New Stunts for Your Kodak," and he has used vegetables for his models; and in his pictures entitled, "Vegetable Vaudeville," we are shown a turnip dancing before a screen, while an onion turns the crank of a little movie camera. It is funny, and we would ask if living models could possibly tell the story better?

Another photo, with its accompanying rhyme, illustrates an onion as artist picturing a goose.

Ho! See the fool artist a-limning a goose—

A terrible waste of good time—an abuse;
He roosts in a garret and lives on a crust—

For he is a person no butcher would trust.
Swap art for shoemaking — why, shoemaker's sons

Have riches and autos — and cinnamon buns!

While artists are poor and feel poverty's pinch—

CAMERA CRAFT

They art by the yard—but they eat by the inch!

A picture of great interest is given showing just how these vegetable comics are made, and a diagram illustrates the positions of camera and subject, the whole thing is just as simple as can be.

In another part of Kodakery we have more Prize Pictures of Childhood, the youngsters are having a great time at their various amusements.

"When the negative is under-developed," is the title of a technical article which gives valuable information. The whole magazine is gotten up to be useful and interesting for the amateur reader.

Why is it?

Is there magic in distance? The question has been oftentimes asked, Why is it, that lenses of foreign make, seem to be preferred by many photographers in this country to those of our home manufacture?

It has been suggested it showed a lack of patriotism. We can not agree with that; but if we were cornered for an answer (and we confess we do not know it all,) we should be tempted to give the following reason—it's the magic of distance. But, we all like to be fair, we mean to be fair, though we sometimes forget.

We believe all American lens makers are quite willing to send their lenses on trial, through the agency of your dealer, now, that is a business proposition that no one can find fault with, and we remind readers of this fact, lest they forget.

The Graf Optical Company, who advertise with us their Super-Anastigmats, has the following, and we quote, "Your dealer will gladly furnish you with one of these lenses for trial: or, we will send you descriptive literature on request." Look up their advertisement in this issue.

A Trimmer That Trims

Probably you have found the average pocket knife a poor print trimmer. It may have behaved fine 'till your cut reached the print's corner, then off tore the corner, and—what did you say?

Look up Hirsch & Kaye's ad., facing the back of our frontispiece, and you will see a cut of "The Safety Trimmer." This trimmer carries a real razor blade, and you will never use a pocket knife again, after

trying this "nifty" contrivance.

Like the boy who nibbles the bread, around the puddle of jam, we too, have kept the best item for last. Though this trimmer has two cutting edges, yet in the nature of things, they will in time get dull; but listen—you don't have to buy a new trimmer; simply remove the set-screw, remove the razor-blade, and insert another blade from your discarded ones and you then have another new trimmer.

Sole American Agents

An item of interest is the amalgamation of the famous company of F. Krupp at Essen, with the Ernemann works at Dresden. This combination will assure the development of the latter's photographic goods.

The name Ernemann, on photographic apparatus, means a great deal to an ever increasing number of photographers; it stands for the very highest in every branch of photographic outfit, whose construction displays such ingenuity, thoroughness and skill, as to appeal particularly to all advanced craftsmen.

We congratulate Herbert & Huesgen Co., general distributors of photographic and optical goods, 18 East Forty-second Street, New York, on being appointed sole American agents for the above named firm; and it will be gratifying to a larger number of patrons to know, that they may now secure what they require, with promptness.

Another item of news is, with this agency is installed a special service department, available to all owners of Ernemann apparatus, so that any of the products manufactured by Ernemann that may need repairing, or other attention, will have the same careful consideration as products made by American manufacturers.

And further, Herbert & Huesgen Co. invite all users of their particular goods, to go to them with their questions and difficulties. It is also the intention of this agency to take care of all previous customers who have been purchasers of Ernemann productions. All this speaks highly for the determination to hold the existing clientele, and to push vigorously for new business which is bound to be theirs, for such thorough methods assure that outcome.

PUBLIC LIBRARY

CAMERA CRAFT



SAN FRANCISCO
CALIFORNIA

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A Photographic Monthly

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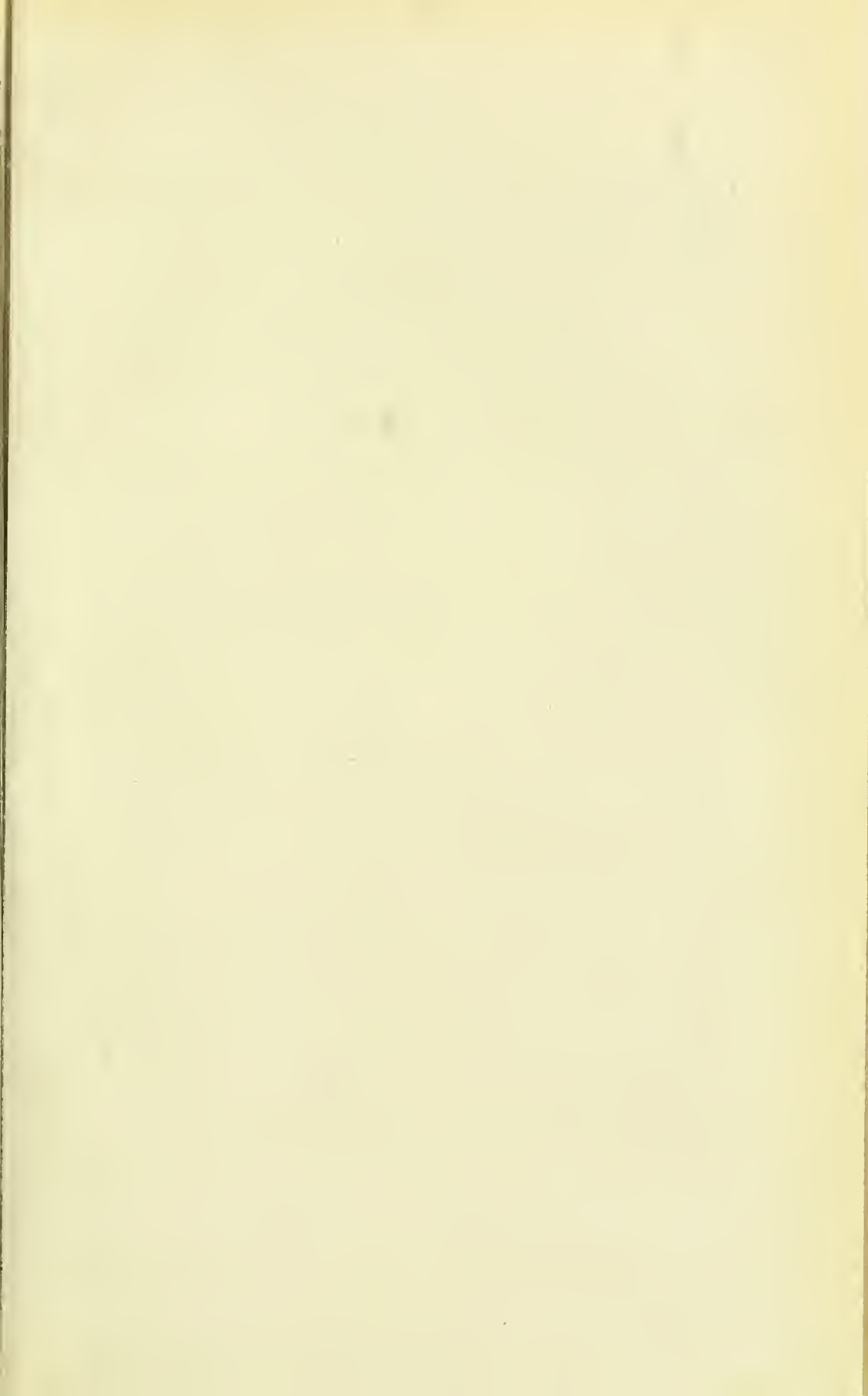
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"ARE YOU COMIN'?"
By ALBERT E. DAVIES

CAMERA



CRAFT

A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief

EDGAR FELLOES,
Associate Editor

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SAN FRANCISCO

CALIFORNIA

VOL. XXVIII

FEBRUARY, 1921

No. 2

A Viewing Convenience

By Harold J. McCurry



With Illustrations by the Author

For years, in my traveling over the State of California, making commercial views for county organization and private individuals, I have often found myself needing a little elevation. Of course, a barn, or a windmill frame sometimes affords the elevation, but such things, even when available, are rarely situated just where one wishes to work, in fact, one might say that they never afford the point of view that is the most desirable.

To overcome this difficulty I had a local wagon maker build me a tripod-ladder as shown in the illustration herewith. The top is much the same as that of an ordinary step-ladder except that it is fitted with a tripod screw socket and is made so that the back part can be raised above the connected ends of the ladder portion, thus giving me such inclination as is required. The two sockets into which the front legs fit are attached permanently to the running board of the machine and the two feet of the ladder or back portion is so spaced and so fitted with light forgings that they are instantly and firmly attached to pockets provided on the springs. The two legs are hinged in the center; the cross piece just above the hood being hinged to one of them; and when this last is turned down and its free end inserted in a pocket provided, prevents the folding of the legs when in position.

The ladder is also hinged between the third and fourth step, so that the whole thing folds up into a package a little over three feet in length. For

CAMERA CRAFT



SHOWING THE "TRIPOD LADDER" STRAPPED TO THE RUNNING BOARD

carrying it is wrapped in a piece of heavy waterproof cloth and strapped to the running board on the other side of the machine. With the front legs about six feet long and the ladder a little shorter, I get an elevation of the camera of about eight feet. One could easily overdo the matter and make the height greater, but I have found this elevation sufficient for all purposes. While it takes but two or three minutes to set up this ladder, I rarely take it down between pictures, sometimes allowing even the camera to ride in position if the distance is short and the road smooth. Quite frequently, when I know it is to be used, I set the ladder up before starting out on a job, and it is always carried along the running board when viewing, for possible emergency.

I find it particularly advantageous when photographing orchards and the like that may have an old fence in front. Even when the fence is not objectionable, a better and more effective picture is secured from the higher elevation with such subjects as orchards, grain fields, truck gardens, animals feeding or grazing, and the like. In the taking of parades and such gatherings as outdoor speaking and band music involve, the ladder is indispensable. We all know that these must be taken from an elevation and the ladder, mounted on the machine, allows one to get the desired position without the waste of time and the annoyance of climbing buildings. Even such ordinary subjects as store fronts and private residences are frequently more suited to the higher elevation, the camera being thereby used nearer

A VIEWING CONVENIENCE



ALL SET UP AND COMPLETELY INDEPENDENT

a point opposite the center of the finished picture than is the case with the usual tripod standing on the ground.

Amateurs who are in the habit of patronizing the commercial printers and enlargers should reserve some of their negatives for their own finishing. It certainly is a great convenience to turn work over for others to do, it may even have economy to recommend it, but if we are really fond of photography we should find pleasure in learning all we can about it.

There is hardly a negative but can be made to yield better results by what is commonly known as "dodging;" dodging takes experiment, experience and time, can we expect this from the commercial worker? Certainly not at the rates charged for their work.

By far the larger proportion of amateur negatives today are snapshots and probably three-quarters of these shots are undertimed. I don't mean so undertimed that they are worthless, but sufficiently undertimed that the shadow detail is too feeble to stand, while the lighter portions of our picture are being printed. Such a negative as this one may be tempted to intensify, but if the lights in the negative are sufficiently dense, of what avail is intensification? Intensification under these conditions, will build up our shadow detail and over build our light detail, we have shifted our difficulty but by no means have we overcome it. Local intensification or staining of shadows will be found satisfactory treatment.—E. F.

OUR WILD FLOWERS

Kindly Contributed by Our Readers

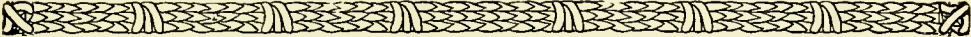
NO. II. STICKY MONKEY-FLOWER

Growing on the lower slopes of open hillsides and flat places is the Sticky Monkey-Flower; a small bush or shrub from two to six feet high, bearing through most of the summer months a wealth of rich orange yellow colored blossoms. The color of the common Monkey Flower which is similar in blossom is a canary yellow but the bloom of the Sticky Monkey Flower ranges from a deep ripe corn color to red. The leaves, long and narrow, turn backwards at the margins and during the warm months are covered with a thin, sticky, sap-like moist coating, that glistens in the sunlight.

A hardy plant and a lover of sunshine, it will grow on rocky banks where little other vegetation will take root and one will seldom find it in any more than partial shade.

ALBERT E. DAVIES.





The Pictorial Element

By Edgar Felloes



With Illustrations by the Author

When Robert Demachy first exhibited his gum prints and won the admiration and praise of pictorialists, he gave a wonderful impetus to the process. There was hardly an amateur, including myself, but had a try at it. I stayed with it long enough to admire the results—when there were any—but it seemed to me, on account of the uncertainties and labor, that it was about the crookedest way of going straight ever invented. I have actually heard it argued, that one of the charms of the process was, “You never got two prints alike.” I certainly do not deny this, for that was exactly my experience; but it never struck me to brag about it.

In a reproductive process like photography, it strikes me that uniform results are essential, and anyone possessing the skill to make a gum print showing its peculiar advantages, has sufficient talent to take up drawing or painting with a very reasonable hope of success. I can not begin to say how many gum prints I have seen, that would have looked better in almost any other medium. The fact that the print is by the gum process is in itself, no recommendation whatever. If there is a real artist behind it, the results may be splendid, but could not that be said of any other photographic medium?

The pictorialist today, appears to be greatly interested in any process which is controllable. He or she, has pursued photography long enough to feel the need of a method whereby the idea or emotion, can be more fully expressed, thus giving scope to a greater individuality of treatment; it is for these reasons the various control processes find such favor.

While we are chasing the new, and living on the tiptoe of expectation, I should like to draw the reader's attention to something that is old. I do not live in the past, but I do not like to see the good of the past—forgotten. Photographically speaking, we are in the day of bromide enlargements. The majority of us have learned to appreciate the value of small cameras; we know with reasonable enlargement the small negative, if good, is capable of giving fine results. Most of our salon pictures are from small negatives, and as the esthetic taste of today does not require the “needle-sharp” print, we may even carry that enlargement to considerable proportions.

It is my belief, that if we seek a controllable process, we should adopt that method which requires the control but once. When we have by that means done our best, let us repeat it mechanically, and not go through all the labor necessary, if we wish a duplicate or more specimens of the work.

CAMERA CRAFT



THE ORIGINAL SNAPSHOT PRINT

Photographers like to be called artists, but what would we think of an artist, because he painted a successful picture, who forthwith undertook to paint half a dozen more like it, what would we say of him?

It is far better for us, that we should avail ourselves of a mechanical process for duplication, than to follow the other method and allow ourselves to become mechanical. As soon as the pleasure of creation has gone, inspiration ceases; the after work then, should be cut down as much as possible. If we have the ability to create, we should hasten on, to create more; we owe it to ourselves.

If we are real amateurs, instead of making new negatives most of our time, we should try with some of our negatives and part of our time, to make pictures. It is these little excursions into the by-paths of experiment, that will keep our hobby always a pursuit of interest, these little experiments will bring fresh problems to us, something to think over, to master, and as long as there is that something, we will not tire.

Pictures may be made in various ways, by controlling the light while printing, by adding clouds to our print, or other combination work, in short, by doing anything to add to a pleasing result. Some photographers have a peculiar idea with regard to the artistic in photography, the adoption of a particular make of lens is supposed to do the trick, but these workers are in the minority fortunately, and they are akin to those workers, over enthusiastic on process. Picture-making is above all that, it is the result of thought, not trick.

THE PICTORIAL ELEMENT



THE SAME WITH PICTORIAL TREATMENT

Here are two landscapes from the same negative. That negative is "the real thing," it is one of a million, snapped on a Sunday, developed and printed on a Monday and in eight hours it is yours, blushing in blackness; perhaps black blushes are not correct, but how about colored folks? Anyway, your's is the picture. The sky had not a cloud showing, it was a lovely afternoon; but clouds may be added so that did not signify much. The fault of the photograph lay, in the area of sky and landscape, both are practically the same, this should be avoided, and trimming is necessary if the print is to be left in its present state of unfinish. But I wished to add clouds and modify the print generally. For that reason I had two 5x7 enlargements made identically alike, from my 2¼x3¼ negative, one of these was to be printed untouched, and the other I wished to work up to show how simple it was to secure a more pleasing effect than in the original companion print.

To carry out this kind of work, we need two tubes of oil color, black and white, a tube of meguilp and a little turpentine, a piece of rag and some absorbent cotton, also an eraser pointed at one end. We may use colors put up for tinting photographs, they are said to be better, but I only used ivory black and zinc white as supplied to artists for picture painting. There are two kinds of white generally sold, Flake white and Zinc white, do not confuse them, the latter is preferable, it is more transparent than the former. Two or three paper stumps are sometimes useful and can be purchased with the colors, or we can make them ourselves, get only small ones.

CAMERA CRAFT

As to the prints themselves I prefer the semi-matt surfaces to any. The rest of our outfit may be secured at home, it consists of a fair-sized plate to serve to work colors on and a small butter saucer. Take the tube of black unscrew the top and squeeze out a little of the pigment on the edge of the plate, about the size of a pea, and alongside of the black place the zinc white. Now squeeze a little maguip in the saucer and add to it a few drops of turpentine. Experiment will determine the quantity, if the color dries too glossy, reduce the quantity of maguip, try and match the surface of the paper, your color should be not too glossy nor too dead.

If we examine the first print, we notice the bushes in the middle distance on the left, are in strength, almost equal to our foreground hillside, on the right. This is conducive to monotony and flatness, we should draw the two plains apart, this is done by contrast. If we lighten the middle distance and darken the foreground we immediately secure that end; and by separating these plains, we naturally secure the feeling of air space, which is very desirable.

Having mixed the turpentine and meguip together, wrap the rag over the point of the index finger, moisten it in the medium and touch the lump of zinc white and work it out smoothly on the plate. With a thin and even coating over the covered finger, it will take a few minutes of practice to determine the amount of dilution the pigment requires, now cover those bushes and the distance with a very thin coating of white, applied in a circular motion. The pigment should not obliterate the photographic detail, and must be quite smooth. For the small spaces, around the tree, apply the white with a paper stump or a piece of the cotton, twisted around a toothpick. Both of these expedients are used in the same way as the rag; first, moisten, then work in the color, and apply in small circular motions to the picture. Should the pigment be too thick on the print, it is easy to reduce it by applying a clean portion of the rag, all the paint may be removed while wet by means of the rag moistened with turpentine if we have made any error.

Our middle distance having been made grayer, turn the print around and rub in the sky. For this apply the black paint only, in the same way as the white was used, excepting where the tones are darker, the pigment is used more freely. A few stock photographs of clouds will prove most useful in providing copy to work by. Endeavor to do all the work with pure black and pure white, it will rarely be necessary to make a gray by the mixture of the two pigments. The reason for this caution is, it takes considerable experience to mix a gray color and have it photograph as we may wish it. The sky having been covered we leave the finishing of it until later.

Let us now take the foreground and trees in hand. With more black on the rag rub in the hillside broadly, and with the assistance of the paper stumps add black to the trees. You will notice the small overhanging tree near the center of the picture, is made quite dark, and the bit of distance peeping beneath it, is made extra light, this is done for effect and to

THE PICTORIAL ELEMENT



IRIS

By Charles Hadden Parker, M. D., D. D. S.

heighten relief. Presuming the trees have been attended to, we will find our sky dry enough to finish.

Take the pointed eraser and remove the paint from the part of the sky we wish to show as light, the eraser is used in a sort of flicking way and with each touch wipe the point free of paint before repeating the action, and if there are harsh edges we think should be softened, rub them lightly with the clean rag. Still using the eraser remove a portion of the black from the tree branches, thus revealing the bright lights from the sinking sun, and also, the subdued light breaking over the hilltop is done in the same way.

In this finishing work it should be our endeavor to keep the photograph in sight. What we should strive for is, to give the spectator the impression he is looking at an honest-to-goodness photograph and if the work is artistic it will win admiration accordingly. Do not strive to make your photograph look like something which it is not, you weaken your effort and only win the indulgent smiles of the better informed; and lastly, do not leave your handiwork visible everywhere, in blotches and scratchings, and puff yourself with the expression—"technique."

Two Practical Studio Appliances

By James N. Doolittle



With Illustrations by the Author

Whether it was a photographer or one of his patients who first gave expression to the truth that "You cannot tell from where you sit how your picture's going to look," has never been clearly established. But as a truth

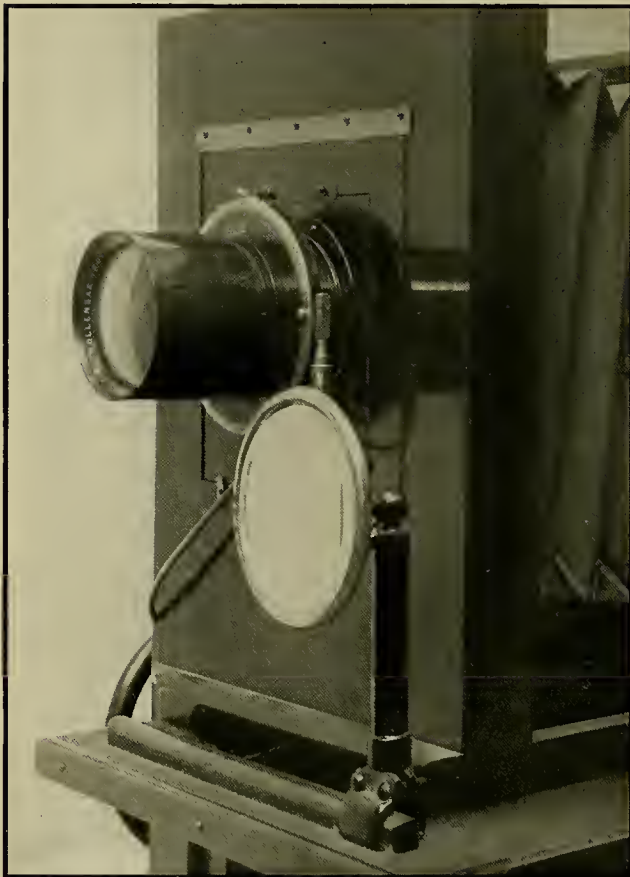


Fig. 1. CAMERA SHOWING MIRROR ATTACHED

it has gone the way of many another ancient belief in the application of a simple accessory which is illustrated in Fig. 1, consisting merely of an automobile mirror fastened to the front of the camera stand as near to the lens as possible without interfering with the operation of the shutter, and by means of which a client may unconsciously (perhaps) assist the operator by assuming a natural pose without his having to resort to the oft-times difficult task of trying to tell him how to look pleasant. It's moreover a convenience to the sitter that usually finds ready appreciation.

Figures 2 and 3 represent an attachment also fastened to the front of the camera stand in the form of a copying easel. Its construction involves no intricate mechanical details, is easily attached and when removed may be folded compactly (Fig. 3). Its use replaces the common practice of pinning the object to be copied to the wall, jockeying about for parallelism and proper degree of

TWO PRACTICAL STUDIO APPLIANCES

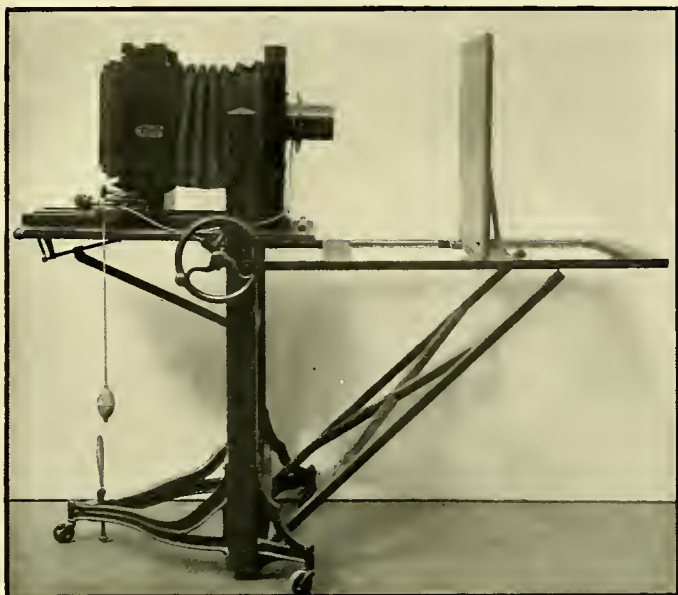


Fig. 2. SHOWING COPYING ATTACHMENT

leading studio, have proved perfectly satisfactory. It would not be at all difficult for any amateur photographer to avail himself of either suggestion.

The use of the mirror for instance in home portraiture, is to be recommended; it is not absolutely necessary to affix the mirror to our little cameras, in fact, it would be difficult to do so in most instances, but we could contrive a suitable support for the mirror, and it could be placed in any desirable position, from a profile portrait to a full face view,—try it, it will help.—E. F.

enlargement or reduction and the consequent loss of time and impairment of results.

Used with an 8x10 studio camera, fitted with a twelve-inch lens, a four-foot track and two by three easel will accommodate practically any work that the average portrait photographer is called upon to perform.

Note—Both these appliances used in a

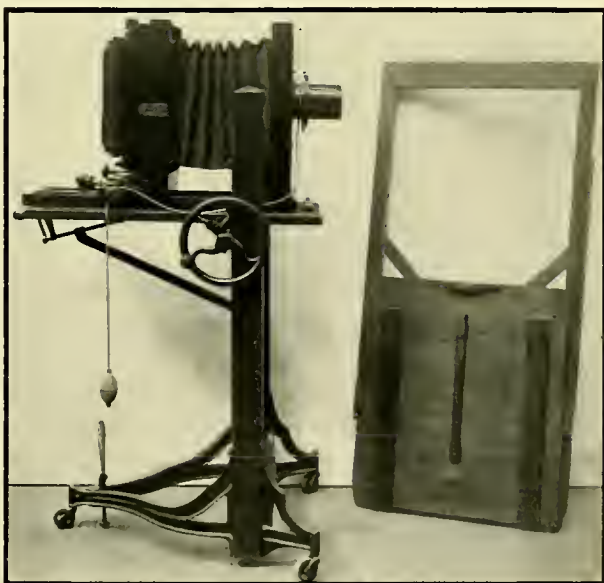


Fig. 3. COPY BOARD REMOVED FOR STORAGE

To talk art, appears to be quite the proper thing, but show a man how he can earn a dollar and you have accomplished something infinitely more useful.—E. F.

My Out of Door Studio

By Bruce Stone



With Illustrations by the Author

Since writing my little article in the July number of Camera Craft I have had quite a shower of letters, from all parts of the United States, and it gives me great pleasure to know that there are so many others interested in the same line of business as myself. Owing to sickness, and lack of time, from my other duties, it has been next to impossible to write a satisfactory answer to all the letters I have received, and I hope that none who wrote, will think it was because I did not appreciate their letters because I have enjoyed them greatly. Almost all the letters I have received, requested that I write a more detailed account of my photographic business. So having a little time on hand, I have decided to write a kind of Photobiography, and if you think it will be of any interest to readers of your paper, you may publish it.

I would suggest that you give room in your paper for a department of this kind. I for one, would enjoy reading it, and I think the slogan of this department should be, "Make it photographic," just a little personal life as will make the story complete. Following these suggestions I begin as follows:



PORTRAITS IN THE GREAT OUT OF DOORS

MY OUT OF DOOR STUDIO



A RURAL SCENE IN TENNESSEE

I am a single man, was born in old Virginia May the 11th, 1882. Am very poor, therefore according to story writers, "very honest." I have been in the rugged hills of East Tennessee about twenty-three years. My desires for photography reaches back about as far as I can remember, for when I was quite a small boy, I can remember posing with a school group for a picture, and I would have given most anything to have been the photographer. He used a lens cap and gave an exposure of about ten seconds in the bright sun. It was a good picture and I have it now, although it has faded some.

If I had been wealthy, after completing school, I would have gone to a college and learned photography, but being otherwise, I am still an amateur, living in Sunny Tennessee. My experience as an amateur photographer began about fifteen years ago, when I bought a little 2x2 box camera and outfit, which I saw advertised in the papers, for the enormous sum of 25c, anyone can see that with an outfit like this, all I had to do was to follow directions to make pictures, at least, that is what I thought about it. It was a plate camera, and the plates had to be loaded one at a time into the back of the camera. For this purpose, as well as for developing and finishing, I constructed a dark room, by hanging bed quilts in a square in the center of the room, and also, over the doors and windows. In the outfit which came with the camera there was included a small ruby lamp, made of red paper, with a candle for illumination, but I didn't need it, for after I stayed in the dark room awhile, I could see very well without it, and after getting everything ready, I made my first exposure.

The instructions said to make an exposure of from one-fourth to one second, but to get a good deep impression I made it ten seconds. Then

CAMERA CRAFT



BY FLASHLIGHT, HUNDREDS OF FEET UNDERGROUND—A MOTOR HAULING COAL

came the developing, and after I followed directions very closely, to my surprise, I had no picture, but I thought that it might be the image did not appear on the plate at all after the developing, so I went right on with the printing. After it was fixed it looked like almost clear glass. The instructions did not say much about drying it, so I began at once to make a print; I was anxious to see the image appear; so I lay a piece of printing paper next to the wet side of the plate and laid it out in the bright sun to print; after I had watched it for about a minute I saw the image begin slowly to appear (the gelatine was melting and draining down). After I was satisfied it had printed enough, I tried to get the paper to come loose from the plate, but it would not, so I had to try it all over again. The next time I tried mixing the hypo and developer together, but of no avail, I was never able to get a picture with the outfit, so I decided that the company I bought from was a fake.

Later I purchased a 4x5 outfit for which I paid \$10.00 and, I also got a good instruction book, with other books on photography, and I soon began to make pictures that one could tell what they represented. I made a dark room by fixing up an old clothes closet; it was only about 4x5 feet square, but it was reasonable dark in it, so I made some pictures that looked fairly well, but only about thirty per cent of my pictures were any good at all, but I thought I was a full pedigreed photographer, and when people would call to see about having pictures made, I would wonder why they did not know I was the photographer. After some time, I began to see that my pictures did not look like other pictures, made by other photographers, and after studying the situation I decided to try developing my pictures at night, which I found to be much better than the little dark room; for I had learned that temperature was an important item, and I found it to be less difficult to keep the large room at an even temperature, besides having more elbow room.

But I found this method to be very cumbersome, having to sit up late at night, and disturbing other members of the family, and there too, is the

MY OUT OF DOOR STUDIO

ever-present lint and dust, that besets a house used for general housekeeping purposes. After I had tried this for some time, and made several bad attempts at picture making, and had all kinds of trouble collecting money for them, I gave up photography entirely, but I soon found that the temptation was too strong to resist, or as the slang has it, "I had the bug," so I decided I would go into the business strong enough to at least pay expenses, and with this view in mind I planned the little room which I gave a description of in the July, 1920, number of Camera Craft. I now have a Rexo camera, $3\frac{1}{4} \times 5\frac{1}{2}$, with Ilex shutter and Wollensak Anastigmat lens, f-6.3, for which I paid \$50.00. I have my dark room supplied with plenty of trays and other things needed, to make picture making a pleasure. I enjoy picture making much better, and make a much better profit, than when I tried to make pictures without the proper equipment and supplies.

I buy my chemicals in the bulk and do my own mixing, using the formulas that accompany the different brands of plates, films, or paper which I use, with a little variation in some of the formulas. I find that chemical cleanliness is a great help to making good pictures, and for this purpose, I have a set of mixing glasses, using a different glass for each different mixture, and in making a stock solution, I have a labeled bottle for each solution, and never use the same bottle for different mixtures, and I have enough trays, so as not to use a tray only for one solution. I keep a thermometer hanging where I can see it, and before developing I see that the house is the right temperature, and also a thermometer stirring rod, so as to see that the bath I am using is the proper temperature. For a developing light I prefer an oil lamp to daylight, because daylight is so variable and, one is likely to ruin a plate before they realize that the light is too strong. I make my exposures outdoors, so you see I have a very large studio. I make them on cloudy days, or in the shade when possible, using an exposure meter, which with a little practice gives me an exposure which, with proper developing, gives an exposure within the latitude of the plate. I use Azo gas light paper and have a north window to furnish light for printing purposes. I do quite a lot of amateur finishing work, and am making a very good profit, considering the capital.



PARAGRAPHS PHOTOGRAPHIC

Kindly Contributed by Our Readers

TO OUR FRIENDS—Tell us what you know! Perhaps you have had some photographic difficulty and overcame it—how did you do it? Tell us!

Perhaps you know some photographic "kink" that others would like to know—be generous, help others; tell us what you know!

These paragraphs are yours; to be used for mutual help: let us hear from you—

A LINEN FINISH—I wish to contribute to CAMERA CRAFT a simple way to make a linen finish on postal cards or paper prints, it may be new to some readers. After the card or other photograph is finished, remove it from the water and blot off the surplus moisture; take a piece of cheese cloth the size of the print, iron it out, dampen it and lay it on the face of the photograph, now place the whole under a letter press and screw down tight, leave print to dry under pressure and you will be pleased at the result. Where one has not the use of a press, a heavy weight may be substituted.—P. A. F., Colorado.

A PLATE BOX—Often I want to make quite a number of exposures before doing any developing. To avoid being handicapped because of the lack of sufficient plate holders, I had constructed a light-proof wooden box measuring 5x7x20 inches, in the 5x7 end of which was carefully fastened an old 5x7 plateholder, with one slide and the opaque middle board removed. Then by drawing the slide, placing the exposed plates in the box and replacing the slide, one can again use strong light in perfect safety, without the inconvenience of wrapping and placing the exposed material in its original container.

This is quite a contrivance, particularly when working hurriedly with important material. I also use a larger box, less carefully constructed, in which exposed paper prints are placed.—D. E. McC., Texas.

FILM PACK NEGATIVES—I would like to make a little cross comment on drying film pack negatives, for your Paragraphs Photographic.

Why not, when you have gone so far as to have paid the Eastman Kodak Co. \$4.00 for a Premo film pack tank, continue with efficient equipment by paying 60c for a dozen strap-hanger film clips? They can easily be attached and hung on a cord; they are efficient, convenient and time savers.

I would suggest also, a pair of rubber gloves, they will save their cost in unscratched negatives, and they avoid finger marks.

Efficient equipment is pleasant to work with and pleasant to look at.—L. F. H., California.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

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San Francisco, California, February, 1921

No. 2

Our Wild Flowers

The page we have devoted to this subject has already met with the approving support of our readers.

We wish, however, to correct a misconception that this space is intended for California flowers alone, it was not our intention to make the subject so local. Camera Craft has many readers in every State of the Union, and we take this opportunity to remind them, that these pictorial contributions will be appreciated from any photographer.

We will try as much as possible to keep to our plan of presenting a picture of the plant with its natural surroundings, and alongside, a separate picture, a "close-up" of the blossoms or part we wish emphasized. This will tell the story in a satisfactory way, especially with the accompanying 200 words of written description.

If you, reader, are interested in wild flowers, perhaps you would find pleasure in this useful pastime; what we want, is a picture just as true to nature as possible, and there is nothing equal to photography to accomplish this end.

Just a hint while we are on this subject: Some contributors fail to get the best results through "forcing" their lens; this is regrettable as they fail to get the best results for all their pains. It is far better when the object is small to make a sharp negative and have recourse to a moderate size of enlargement than to crowd our camera close up to the object, we secure much better perspective, in fact, a truer rendering of our subject.

We have received by this morning's mail a photograph of wild flowers showing a pleasing arrangement, but unfortunately, however, our contributor has forced his lens. The picture is excellent in everything with the exception of some spikes of flowers leaning towards the camera, as these are nearer to the lens they show a decided lack of definition, out of focus, when compared with the blossoms that are further away, which are perfectly sharp. A little thought will convince the worker that if a lack of sharpness is unavoidable, or even if it should be desirable, this want of definition should be in the background, it then serves as an artistic support to what may be in front of it. Some workers contend, that all that is necessary is to use a very small stop and by that means, increase the depth of field and thereby obviating the difficulty. The use of the small stops for this purpose is an abuse, there are other things to be considered besides focus, and the most important is distortion. If for instance we secure definition in the way above mentioned, we shall find those near flowers much larger than the other blooms, which may be only a few inches back; then why distort when there is no reason for so doing? Remember, all this can be avoided by moving the camera back a little, perhaps a matter of two feet will suffice with small cameras.

CAMERA CRAFT



AS THEY LOOKED IN 1886

(Identification by Jas. H. Smith & Sons Co.)

In regard to the old picture which you return will say that there are two or three faces which I do not recognize. In the top row from left to right, the first two faces I do not recognize. The third one I am not very sure of, but I think it is W. I. Irving Adams who was connected with the Scovill & Adams Co. and published their trade magazine, and I believe continued the publication some time after that firm combined with the Anthony Co. The fourth is Mr. Blair, I think his first name was Thomas, who for some years manufactured the camera known as the Hawkeye. The fifth is Mr. Allen, formerly of Allen Bros. of Detroit. The sixth is Mr. Butts, formerly of the firm of Tucker & Butts of Buffalo, and later of the firm of Butts & Adams of that city. The seventh is Mr. Wilson of the firm of Wilson Hood & Co. of Philadelphia, a brother of Edward L. Wilson, old time publishers of the Philadelphia Photographer of Detroit.

The lower row, the first man on the left I believe to be Robert Dempster of Des Moines and later of Omaha. The second is David Tucker of Buffalo. The third is Mr. Edward Cope, who was the practical manager for many years of the A. M. Collins Card Mfg. Co., and the fifth I believe to be Mr. Geo. Savage of the firm of W. A. Savage & Co. of Salt Lake, although it may be J. F. Adams of Buffalo. They look considerably alike, and I am not very sure, but I think it is Savage. I would like to have this half tone or a copy of it returned to me, as I have no picture of this kind. They were all familiar figures in the Photo Supply trade twenty-five to thirty-five years ago.

Jas. H. Smith.

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

Duplicated Exposures for Difficult Subjects

Occasionally one is called upon to make a negative of an extremely difficult subject which would perhaps cause the most experienced of us to pause and wonder whether a self-screen, ordinary, or a filtered color-sensitive plate would give the best result, or, maybe, whether an exposure of one hour or two hours is wanted, or, again, whether f-6, or, say f-16, would give the better result. If the exposure of two plates is possible, and one is not limited as to time, the problem may be easier to solve, though the exposure of two plates becomes a very serious matter when the times of exposure are very long, as they generally are when working in dimly or peculiarly lighted interiors, the light coming through old stained-glass windows being at times very deceiving. Expense is also a consideration, especially when large plates are employed.

A professional worker of my acquaintance was called recently in great haste to a certain Royal residence where he was requested to make a negative of a room then vacant for about two hours, and although the exposure necessary was only about twenty minutes, he only exposed one plate, even though he had ample time to expose more. It was however, quite certain that neither he nor anyone else would ever have an opportunity to photograph the room as it had been left by men famous in the world's history. Blessed is the man who has such confidence in his abilities; unfortunately, I have no such confidence in mine, although a photographer of thirty years' experience in many parts of the world.

During recent years I have adopted a plan of dealing with difficult and uncertain subjects, a plan I can recommend, it not calling for much outlay; possibly none at all in many cases. I wish now that I had

adopted it twenty years ago, when difficult subjects were for me the order of the day. I refer more particularly to the tasks of photographing the traditional scene of the Nativity and the Manger at Bethlehem, and the various sites in the Church of the Holy Sepulchre at Jerusalem. In each of these places, however, I managed to secure six exposures by flashlight before the priest custodians became alarmed because of the fire and smoke, and bundled me and my tools most unceremoniously out of the buildings.

My present-day plan of dealing with extremely difficult subjects is more awkward to describe than to work. My apparatus consists of a double quarter-plate stereoscopic camera fitted with a pair of Dallmeyer's old C. D. V. portrait lenses, and I have also a pair of Petzval lantern objectives fitted with home-made stops of cardboard, as well as several other pairs of lenses of various foci. My idea, however, as I shall explain, is not to make stereoscopic pictures. I make this statement now in case my readers cease scanning these remarks in the belief that I am trying to revive stereoscopic photography.

I use the old Dallmeyer portrait lenses more often than any of the others, because they are invaluable for difficult subjects of most kinds. These lenses (made in 1868) are similar to the well-known Petzval instruments, the difference being in the shaping and arrangement of the back combination. These old Dallmeyer lenses are, I believe, fairly common today, and may often be picked up very cheaply. Such is my outfit, in which there is nothing new; my method of working, however, is, I believe, out of the common."

My aim, as I have said, is not to make a stereoscopic pair of prints, but rather to secure at one exposure two different results—two quarter plate negatives of different

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qualities—and to make use of the better one, perhaps destroying the other. It is for this reason that a double quarter plate camera is employed—one made by Chadwick, who was a strong advocate of the double quarter size for stereoscopic work. The camera allows of two quarter plates being used side by side, a thing the orthodox stereo camera does not permit of. The two quarter plates I use side by side are rarely of the same brand, but of two different makes. Thus, in cases of uncertainty when the use of, say an ordinary plate or a self-screen camera cannot be decided upon one of each is used. One may also use ordinary plates of high and low H. and D. numbers to form a pair, a screened isochromatic and a panchromatic, and many other combinations, the worker selecting the two most likely to give the best results, rather than results which differ widely.

These differences in the sensitive plates, used on the same subject, are combined with the play one has with stops: changes may be rung to any extent. Sometimes—particularly when stops are manipulated to make the exposures required about the same—there is little to choose between the two negatives, but in most cases one is better than the other, and from the better one the necessary enlargements are made.

Further, differences in the quality of a pair of negatives on plates of different makes may be secured, if necessary, by developing with different developers. Most of my most difficult interior subjects are taken on an ordinary plate with a self-screen plate as its bedmate in the dark slide. Pyro-soda is commonly used as the developer for the self-screen plate, and M. Q. or Azol for the ordinary plate. I find the plate combination named the best for architectural "bits" in churches and old buildings, far better, as a rule, than a pair of ordinary plates of different speed numbers, or a pair of like plates used with stops differing but little in their F values. In practice there is not a noticeable difference in plates of the same variety having different H. and D. numbers, unless, of course, the latter differ widely—a fact which speaks volumes for the extraordinary latitude to be found in modern dry plates. It is when using two plates of the same brand

—if not of the same speed—that the use of a different developer for each comes in handy to give one a choice of negatives.

The choice of plates to make up a pair likely to give two good results depends largely upon the subject to be pictured, for although two perfect negatives are not to be scorned, one only is necessary, as the worker is not making a pair of prints to illustrate an advertisement of a panchromatic plate; he is simply having two chances of taking something where perhaps only one is possible when working in the usual way. And although my best results have been obtained on one or other of a pair made up of a self-screen and an ordinary, some subjects call for a self-screen and an ortho plate with a yellow filter, while others may suggest a self-screen and an unscreened panchromatic, and so on.

The old portrait lenses, as well as the Petzval lantern objectives, are really excellent lenses for difficult architectural "bits." The large apertures permit of easy focusing, and fairly large stops may be used when only the center of the negative is wanted for enlargement. My practice is to get my subject within a 3-inch square marked upon each half of the focussing screen, and let the remainder take care of itself.

This plan of working calls for a double quarter-plate camera, or one of the orthodox type with plates cut to fit, and, as so many workers have stereoscopic cameras lying idle, it may be that my hints may be of service to those who desire to find a use for them, and who, like myself, are sometimes puzzled to know what plate, exposure, or method of development will give the best result.

P. R. S., B. J. of Photography.

An "Always-Ready" Plate Backing

An "always-ready" anti-halation backing in a full sense of the term; the mixture being always ready to hand without becoming dry in the pot, or absorbing an undue proportion of water from the atmosphere, and moreover the plate is ready for exposure immediately; no drying being required, while finally the developer is in no way damaged, so that no wiping-off is required previous to development; nevertheless, if desired, a full view can be had at any stage of the development as a touch

A PHOTOGRAPHIC DIGEST

with a soft brush clears any part of the backing instantly during development, if an undermentioned precaution is taken.

This combination of advantages is realized by taking advantage of the hygro-metric and other properties of ox-gall, the ox-gall being used in the form of the purified ox-gall of the pharmacist; additional and incidental advantages are ease and certainty of application, notwithstanding finger marks or like greasy patches on the back of the plate, and the complete elimination of halation under the most trying conditions; the optical union of plate and backing being perfect owing to nearness in refractive index, and the peculiar soap-like viscosity of the mixture.

The purified ox-gall of the British Pharmacopœia (*Fel bovinum purificatum*) can be obtained as a yellowish-green, viscous mass from any pharmaceutical chemist, or it may be prepared by the following instructions on p. 147 of the 1914 edition of the British Pharmacopœia. Evaporate half a litre of fresh ox-bile to one-fourth of its volume; shake with twice its volume of 90 per cent alcohol. Set aside to clear, filter and evaporate on water bath to the consistency of an extract.

The backing mixture consists of one weight-unit of the purified ox-gall, four weight-units of gum arabic mucilage, and one weight-unit of vegetable black water-color, as sold in a collapsible tube, these being well mixed after the containing pot has been warmed in the water bath for a few minutes. A rather stiff, flat brush, a string or wire across the mouth of the pot for striking off any excess from the brush, and a larger pot to cover the whole closely, complete the equipment for backing, but a cover plate for the backing is desirable. This at best is a plate of matted black glass, with corner pieces of thickish microscopic cover glass, cemented on with Canada balsam, to prevent contact and inconvenient adhesion, but an old negative with four corner-pieces of thick paper gummed on is a substitute. Obviously only one sensitive plate can be used in an ordinary double back under these circumstances, but two sensitive plates may be used in the double slide if a thin sheet of black celluloid is laid on the adhesive backing of each

plate and the two celluloid backs are placed together in the slide.

A note on the thin black, flat celluloid, a remarkably useful material in the photographic work-place. Thin celluloid is stained, first green with an alcoholic solution of acid green, then red with an alcoholic solution of magenta, in such ratio as to produce the best of all blacks, a mixed black. After washing in water to remove any soluble remainder of either color, the celluloid is ironed flat between sheets of stout paper.

A very small quantity of the backing is required if the layer is uniform, say four grains for a quarter-plate, and it is seldom or never desirable to apply the backing quite up to the edges of the plate.

Ordinarily the protecting or covering celluloid should be peeled off before the plate is put into the developing solution, and it is more convenient to drop the plate through the developing solution than to put the plate in the dish first and then pour the developer on; as in this latter case the backing is so immediately and uniformly softened that a touch with the finger or a soft brush will clear a place at once, should back views or through viewing be desirable.

There is, however, one case in which it is desirable to leave the protecting celluloid on, or to use an adherent protecting plate at the back, that is to say without the corner-pieces for giving distance. This is when the so-called "Aktinal" system of desensitising and subsequent daylight development is adopted. (See article "Aktinal," p. 13 of 1912 edition, Cassell's "Cyclopædia of Photography.") In this case the protecting plate or celluloid is of use in preventing the soiling of the desensitising fluid (four per cent potassium iodide solution), which if thus protected may be used for several or many plates in succession.

The developer which I prefer to use, and one which I regard as a near approach to a universal developer, whether for plates or paper, is a rather strong hydroquinone developer with sodium sulphite and sodium carbonate:

Hydroquinone	45 grs.
Cryst. sodium sulphite	2 ozs.
Cryst. sodium carbonate	2 ozs.
Water	5½ ozs.

(Total volume about 8 fluid ozs.)

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This keeps well, has a Watkins factor of about five and I have never found it necessary to add bromides excepting under conditions like those of the "Aktinal" process or the Playertype process; when the film contains two grades of material, each developable, but in different degrees.

Even those professional photographers whose activities may be wholly confined to the studio, would do well to consider the service occasionally rendered by backing. The full lights and shades of a clear white dress cannot be rendered on an unbacked plate, and to copy an engineer's blue print is almost hopeless unless on a backed plate—which should also be orthochromatic.

—Thomas Bolas, B. J. of Photography.

Lantern Slides from Small Negatives

Owners of small cameras of the Ensignette or Vest Pocket Kodak type frequently make contact lantern slides from their negatives because they lack the necessary apparatus for enlarging the image to the standard size. While there is no disadvantage in this, if all the slides in a series are of uniform size, the effect is unpleasant if they have to be shown in conjunction with those of standard dimensions. A simple way of enlarging them is to use the ordinary projection lantern, the only appliance to be provided being a carrier for the small negative. When the length of the draw tube is insufficient to give the necessary distance between negative and lens, it is easy to insert a cardboard tube between the inner and outer tubes, and as the objectives are almost invariably fitted with a rack adjustment, accurate focus can be readily obtained. As the degree of enlargement is small it is advisable to stop down the lens considerably or to insert a translucent screen between the light and condenser. If gaslight plates are used no such modifications would be necessary. As such lanterns are not usually light-tight, it is advisable to fit a large card screen with an aperture for the lens to peep through, in order to prevent stray light from reaching the plate.—B. J. of Photography.

A Long Experience in Method

I have now developed gelatine plates for forty-five years and have followed three systems:

From 1876 to 1894 I used "inspection and judgment" only.

From 1894 to 1910 I used "factorial development" only.

From 1910 to 1921 I used "thermo time development" only.

The first change from inspection to factorial conferred an enormous advance in getting uniformity and obviating errors. The second change from factorial to thermo was taken because I wished to work with tanks and to do without a dark-room light, especially as I am red colour-blind.

Both the factorial and thermo methods have given me uniformity and tolerable certainty, but, to be quite frank, I think that I have secured slightly the largest proportion of "just right" negatives during the time I used factorial development. I have been "let down" several times in the thermo time method by plates or developer being different to what I anticipated, and the method does not give such a clear warning as does the factorial method.

As all this experience was with outdoor subjects, with church and other interiors, and as I have received scores of letters testifying to the success of others with factorial development in their hands, with similar subjects, I think I am justified in disputing Dr. Glover's claim that factorial development is "not suitable" for outdoor subjects. It is just on this work that it earned whatever reputation it possesses.

—B. J. of Photography.

Perfecting Factorial Development

I have repeatedly pointed out that the one weak point of factorial development could be obviated, and its other great advantages secured, if plate makers would issue with boxes of plates trial slips impressed with light images (in bars) of a standard light-impression from which to take the "first appearance" observation. This should be a standard multiple of the inertia of the plate, and it is a curious advantage that even if the "standard light" of different makers should vary, this light-impression would be the same standard for all if each used the same light to make the impression as was done to make the inertia test.

ALFRED WATKINS.

—In British Journal of Photography.

THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

An Error

In the December number of this magazine was published Wellington's formula for The Borax M. Q. Developer; unfortunately, through a typographical error, the amount of water stated was incorrect, this should read 20 ounces and not 20 grains as there printed; the rest of the formula is correct.

I have just learned that some of the members of the California Camera Club (who took it for granted that 20 grains of water was really a misprint and meant 20 ounces) have been experimenting with this developer and are enthusiastic on the beautiful clearness of the resulting negatives.

For the benefit of new readers this formula is reprinted here:

The Borax-M. Q. Developer

A developer likely to prove popular with amateurs for their hand camera negatives is the following metol-hydrokinone, in which borax replaces the usual alkali. The following formula is recommended by Wellington and published in the photographic hand book, from which I quote. Probably no developer is capable of giving negatives of such fine grain or more completely free from fog or stain. Its advantages are most marked in the development of very small negatives, positives from which are generally produced by enlargement. In such cases the almost grainless quality of the original image is of the highest value. Borax-M. Q. gives negatives of delicate rather than strong gradation, and of beautiful photographic quality. It works best with plates which have been fully exposed.

Borax-M. Q.

Metol	20	grains
Hydrokinone	50	"
Sodium Sulphite (cryst)	200	"
Borax (powdered)	200	"
Water (hot)	20	ounces

Dissolve in the order given, allowing each chemical to be in complete solution before adding the next. This developer keeps almost indefinitely in well-stoppered bottles.

N. B.—All metol-hydrokinone developers should be used at a temperature of from 60° to 65° Fahr. Below 60° Fahr. hydrokinone rapidly loses its developing power and at very low temperatures becomes practically inert.

Ralph-Harris & Company, 26-30 Bromfield Street, Boston, Mass., are sole United States agents for the Wellington products, and the "Wellington Photographic Hand Book" may be secured from them, price 35 cents.

Bromide and Gaslight Prints

The following is what "Rajar" has to say on the subject of developing these papers. Our readers will be interested in expert advice and some may glean a pointer of value.

"What is the best developer for Bromide and Gaslight prints?" There is no doubt that it is the one recommended by the makers of the particular paper used, as they, knowing the exact nature of the emulsion, are able by careful experiments to arrive at a developing formula that will bring out the best qualities of the paper.

Either M.Q. or Amidol may be used with equal success, and we append our own formula with instructions for mixing. The only alterations that should ever be made are, when necessary, to dilute the developer, and to increase the proportion of Potassium Bromide. A well-restrained dilute developer gives fine warm-black colors on the soft grade Gaslight, and a well-restrained normal strength developer is the one most suitable for developing Bromide prints to that greenish color which gives such nice sepias in the Hypo-

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Alum toning bath. In both these cases the exposure must be on the full side, but printers should bear in mind that (excepting in special cases) correct exposure followed by full development (i.e. development carried on until the image ceases to gain in depth) produces pure black images of fine quality especially suitable for Sulphite toning. No useful purpose can be served by unduly prolonging development, indeed it may introduce fog, but the practical printer will know by experience when to stop development. Generally speaking a Bromide print should be fully developed in two minutes, and a Gaslight print (excepting the soft grade) in one minute. The time of appearance of the image is not a reliable guide, as it varies so much according to the quality of the negative used, and the temperature of the developer.

There is one chemical in the developers that calls for special mention, and that is Sodium Sulphite. It is not a good plan to make up a stock-solution of this in bulk (as many Amidol users do) and keep it any length of time as it deteriorates in solution. We therefore advise freshly-made Sulphite solution for all developers. In order to obtain blue-black images on Gaslight paper some workers reduce the proportion of Potassium Bromide, but we do not recommend that less than ten grains be used in twenty ounces of developer.

Metol-Hydrokinone Developer (Double Strength)

Metol	16 grains or	2 grammes
Hydrokinone	60 "	7 "
Sodium Sulphite Cryst.....	1 oz. or	55 "
Sodium Carbonate Cryst.....	1 oz. or	55 "
Potassium Bromide	20 grains or	2 "
Water to make	20 ozs. or	1 litre

In about 15 ozs. of warm water dissolve the Metol, then add the Hydrokinone and Sulphite, and when dissolved add the Carbonate and Bromide. Make up to 20 ozs. with cold water and bottle off in full well-corked bottles.

For Bromides add equal volume of water—for Gaslight prints use full strength for the Vigorous and Normal grades, but diluted for the Soft grade.

Amidol Developer

Sodium Sulphite	1½ ozs. or	60 grammes
Amidol	50 grs. or	5 "
Potassium Bromide	10 grs. or	1 "
Water to make	20 ozs. or	1 litre

In about 18 ozs. of tepid water dissolve the Sulphite, then add the Amidol and Bromide, make up to 20 ozs. and use within three days. Dilute only when developing prints on the soft grade Gaslight paper.

Rubber Solution

The value of rubber solution as a temporary adhesive is not so generally appreciated as it might be. Its great advantage lies in the fact that after it has served its purpose it may be removed by a rub of the finger without leaving any trace of its presence, except that it may have carried away any surface dirt. For fixing masks upon negatives, or negatives upon a larger plate, it is only necessary to apply a few small dabs and press into contact to ensure a firm hold; when done with, a gentle pull will ensure separation without injury. Small originals which have to be copied up to the edges may be fixed upon the easel by its means, the rubber being applied to the easel and the print pressed against the tacky surface. The ordinary solution as sold in tubes for bicycle tire repairs is quite suitable, or "washed sheet" or "masticated" rubber may be dissolved in benzole if a large quantity be required. It may not be amiss to remind non-cycling photographers that a "repair outfit," procurable for a few pence, contains all the materials necessary for repairing the pneumatic fittings of studio and other shutters, as well as leaky rubber gas tubes.—B. J. of Photography.


To Avoid Blisters

This is probably one of the most exasperating experiences that comes to our lot.

There is no doubt that too strong alkali in our developer will cause blisters, for this reason I prefer a developer with no alkali, Amidol is ideal, the color of the print developed with it is a beautiful black, but be sure to use the sulphite quite freshly made, don't work with a stock solution of this salt.

Do not use a too strong hypo fixing bath, make it two ounces of crystals to sixteen ounces of water, if the hypo is too strong blisters may show in the wash water through irregular transfusion.

The wash water and fixing bath should be of the same temperature.



CLUB NEWS AND NOTES

Club Secretaries and others will oblige by
sending us reports for this Department

Advertising Art

An unusually interesting display of current advertising art, including color, black and white, design, pen and ink, wash and pencil will be found in the galleries of the National Arts Club, 119 East Nineteenth Street. The men who planned the exhibition arranged the details, selected the works to be shown, and established the basis of selection, are the men responsible for the production of much of the art work used in advertising.

The basis of selection is the same as that used by juries choosing pictures to be shown at any art exhibition—artistic merit. All pictures hung have been used for advertising purposes. All specimens submitted had been used in advertising. So the pictures hung on these walls and listed in this catalogue represent the collective judgment of the men responsible for art production as to what kind of work should be used in advertising.

It is the belief of the men who compose the Art Directors' Club that artistic excellence is vitally necessary to successful advertising. Two factors are involved in such pictures. One is the thought—the idea—the message—the picture is intended to convey. The other is the manner in which that message is conveyed, the artistic ability of the artist to express that message—simply, directly, effectively and convincingly.

The purpose of this exhibition is three-fold. It is intended to set up a standard for the edification and education of all concerned with the physical appearance of advertising. It is intended to dignify the field of business art in the eyes of artists, to encourage the best men to undertake it, and to regard it while undertaking it as the greatest art job in the world. It is intended to show the business world the high standard already attained, and to

teach advertisers, those who approve and pay the bills, the value and necessity of good art in advertising to the end of making all advertising more resultful.

Each picture in this collection is the work of the thorough, careful and conscientious artist. Into the making of each design went much consideration. No greater amount of intelligent thinking is expended upon the painting of a mural decoration, a portrait, or an easel picture, than is now devoted to the production of a good design for advertising purposes. More artistic ability is now available for the advertiser's use than he is using—than he even realizes. Thousands of pictures are used every month for advertising purposes. Thousands were submitted for the purpose of this exhibition. Only three hundred were thought good enough from among all the art work of the past year or two. Isolated here the average seems high. Mixed with the inferior and mediocre works which greatly outnumber them in the magazines and newspapers and on billboards and street cars, the impression is that anything is good enough for advertising. The difference between this eclectic showing and the rank and file of advertising is the measure of the advertiser's opportunity.

All these designs have been used by successful advertisers. They were chosen by experienced advertising art directors. They represent the best prevalent practice.

But good as they are, they are not as good as they could be. They are not the best that be done. What is needed is a better atmosphere—a better attitude toward good work—a better understanding of the selling power that can be put into pictured advertising—a less stiff and condescending state of mind on the part of the world's greatest artists—a less intolerant and narrow-minded attitude on the part of the world's greatest advertisers.

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Thirteen years ago the writer arranged the first exhibition of advertising art. It was held in these galleries. There were some good things then, but few compared with now. The significant fact, however, is that the good work then was taken from obscure sources—a color page from a printers' journal advertising ink—the cover of a booklet—an advertisement in an art paper of small circulation. About half of that early show was made up of magazine covers, selected to fill bare walls for lack of enough passably good advertising art. In the present exhibition the exhibits are nearly all national. They are already familiar to everyone who visits this gallery. They have appeared in national mediums, magazines with large circulation, in great newspapers, on posters and in space costing thousands of dollars. This fact suggests the growth of the confidence of the advertiser in better art work.

—E. E. Calkins.

Buffalo Fine Arts Academy

An exhibition of paintings by Nicolas Roerich of Russia is being held at the Albright Art Gallery, and cards were out inviting recipients to meet Professor and Madame Roerich on the occasion of the opening night.

If we are to believe half the reports which crowd our press dispatches as to the horrific doings in Russia even now, and for a long time past, we are forced to the conclusion that both Madame and the Professor are joint owners of a rabbit's foot.

Far better—a lion in the United States than a rodent in Russia, haunted and hunted.

Negro Butler Wins

"Yes sah, ise jes' done beat 900 at the Camera Show!"

All our readers are more or less familiar with the John Wanamaker photographic exhibition, it is an annual affair, and very popular. Consequently, it is not surprising that prize pictures at this exhibition always show real merit, the keen rivalry insures that; but the following, from a news item is as unexpected as it is gratifying to us:

Chicago, March 26.—King D. Ganaway, a negro butler on the Chicago Gold Coast, won first prize for his photograph, "The Spirit of Transportation," at the John

Wanamaker exhibition at Philadelphia, which will close next week. He had 900 competitors to beat, most of them professionals.

Another picture of his received honorable mention. It is called "Children in the Country," and shows a boy and a girl on a teeter-totter under an old apple tree.

Art Notes

This little booklet to hand, and at the head of the first page we read: "Art Notes—published in the interest of American Art and the Macbeth Gallery." After reading this announcement, one instinctively experiences a friendly feeling toward the little publication—it is honest.

In its pages we are given news about our artists and their work, and short accounts of art matters in general, also reproductions of some of the paintings on exhibition at the above named gallery. These engravings are well done and add much to the interest of the publication.

Art Notes is the "mouth-piece" of The Macbeth Gallery, 450 Fifth Avenue, New York, and it is intended for circulation among those interested in art matters, and buyers of pictures. But who are the buyers of pictures? In almost every case the answer forthcoming would be, "why the rich of course!" but such is not generally the case, as the following clipping from Art Notes will interestingly show.

A recent editorial in the New York Times regrets that American art should have to depend on the rich for its support. Such a condition would be most regrettable, if true, but, fortunately, it is not true. The writer is under the very general misconception that only rich people buy paintings.

As a matter of fact, the very rich, as a class, neither buy American pictures nor care about them. They do not even know about them. This is particularly true in the East, but even in the West, where the tradition of a salt-water-journey for any picture worth buying, is not so firmly rooted, it is only the occasional person of great wealth who patronizes our living artists.

The Times writer would be more than surprised to know just how many American pictures are bought on the "installation plan," by those who really love them

CLUB NEWS AND NOTES

but to whom outright payment of the artist's price would be a permanent bar to ownership. It is not too much to say that, so far as our own experience goes, those who can and do pay in full on the receipt of a picture, are decidedly in the minority. One of the first uses of an art dealer is to make possible for the man who really loves a picture to secure it, and pay for it as and when he can. If the artist cannot wait, the dealer advances his share to him, and a good deal of the dealer's "exorbitant" commission is used up in interest on the money borrowed on such accounts.

No, the future of American art is far from being in the hands of the wealthy, and it is well that it is not.

Second National Salon

The Second National Salon of Pictorial Photography, under the direction of The Buffalo Camera Club, has come to a close and the general opinion marks it a success. Perhaps there was nothing startlingly original, but there is visible a steady and sure advance in the average work of exhibitors.

This is most gratifying, as it means the greatest good to the greatest number. We all like to meet the work of—the one man—it sets the pace for us, but these types are few, more especially these days, where all workers are keyed up and wide awake.

In the excellent catalogue got up by this Club, we have five illustrations, of which the most striking is "Pennsylvania Station—New York," by Dr. D. P. Ruzicka of that city. This is an admirable piece of work. There is a fine sense of space in the middle distance, and the hurrying crowd of little humans adds grandeur to the lofty arch; making man view with pride the work of fellow man.

Probably many photographers would not look to a railroad station as being a promising field for pictorial subject, but Dr. Ruzicka shows no less than six different views of the Pennsylvania station in this exhibition.

Another reproduction shows a view of Gloucester Harbor, by E. I. McPhail of Buffalo. This harbor has long served the painters and it is only natural the photographers also, should find an endless amount of interest for their cameras. McPhail's

picture should be popular as we have a familiar scene simply treated.

"The Angelus of the Dance," by Edward R. Dickson, New York City, is an excellent example of photographic group work, the eleven figures shown and the masterly way the artist has handled them is greatly to his credit; the whole effect is beautifully decorative.

California is represented by such well known workers as Fred R. Archer, Los Angeles; John Paul Edwards, San Francisco; Louis Fleckenstein, Los Angeles; and Arthur F. Kales, Los Angeles; all this is very gratifying.

Dark Room Club

At No. 1207 Chestnut Street, Milwaukee, Wis., is organized a dark room club with the following officers elected: P. Deneen, president; John H. Becker, vice-president; Robt. Meder, librarian; Albert Gaerlitz, secretary.

We presume this is the title for a new camera club, and we have been asked to offer some suggestions that might be useful. At the present moment we can only think of two. The first one would be to get in touch with some live camera club and through its secretary secure the information needed. We would recommend the California Camera Club for a start; this is a well established club and a very successful one. This club manages somehow to appoint live committees to look after its various undertakings and its social committee appears to be a particularly live one, for members have a variety of social gatherings and outings provided for them.

Another feature, which can be made useful under certain conditions is the blackboard, or something similar. Any member may, if he or she chooses, hang up their pictures for criticism by other members of the organization.

Members criticising such pictures must sign their names in full, (initials don't go), to such criticisms offered. And above the board should be plainly lettered something to this effect: "Criticise the pictures only." This is done to check the "funny man," if he is checkable. Where the above idea is carried out in good faith there is much to recommend it, otherwise it will prove a failure.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

A. E. Davies, General Secretary, 1327 Grove St., Berkeley, Calif.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

John Bieseman, Director Post Card Division, Hemlock, Ohio.

James B. Warner, Director Stereoscopic Division, 413-415 Claus Spreckels Building, San Francisco.

A. E. Davis, Director Lantern Slide Division, 1327 Grove St., Berkeley, Calif.

To Our Members—Greetings

Probably some members of the I. P. A., contributors to our circulating albums and also members who are not at present contributing, would like some information with regard to the management of a circulating album.

Here in New York State with Mr. Charles F. Rice director, we circulate an album of twenty-four prints by ten contributors; the sizes of the prints are $3\frac{1}{4} \times 4\frac{1}{4}$ up to 8×10 , and three of these are in colors. Accompanying the album, but under separate cover, is a criticism sheet, and this contains the data of each print under corresponding number.

Each recipient of the album is entitled to retain it two days, and he is expected to write a constructive critique applicable to the pictures, on the sheet provided. This practice has met with much approval by the recipients. Accompanying our album alluded to, was a loan album of forty prints by an English club, it was well worth seeing, and we reciprocated with another album. Is there a pleasanter source of advancement and self-education?

Come on, you fellow members of the I. P. A.! Send your Director several of your best prints, and ask him to circulate an album for you, or write me direct for information.

I hope every State Director will give me the number of members on his route list—how often the album circulates and date last issued. I should also like to know if any would consider merging two or more States to make a larger album list, and lastly I would appreciate any suggestions for the benefit of the album or service, and thereby encourage enthusiasm.

I will be pleased to interchange albums among States with those Directors desiring such an exchange; here in New York State, two exchanges on a temporary loan have been made with our British co-workers.

Let us make 1921, a year of albums of higher quality, this can be done by the hearty co-operation of our State Directors.

Sincerely yours,

LOUIS R. MURRAY,
Chief Album Director I. P. A.
Ogdensburg, N. Y.

NEW MEMBERS

4915—Frank E. Green, 14 Kimball Ave., Pawtucket, R. I.

$3\frac{1}{2} \times 7$, glossy, Ago or Velox, of seashore, country life, etc.; for mountain views, canyon views, National park views or any stereoscopic views outdoors showing a marked stereoscopic effect.

Class 1.
4916—Jos. Ernest Dionne, P. O. Box 58, Letellier, Manitoba, Canada.

Class 3.
4917—Henry J. Rust, Box 683, Coeur d'Aleur, Idaho. 4×5 and 5×7 , single weight, glossy and semi-matte of natural history, birds and nests, animals and plants; for the same. I desire to exchange prints and lantern slides only. Class 1.

4918—Robert M. Riculfi, Box 641 Albuquerque, New Mexico.

$3\frac{1}{4} \times 4\frac{1}{4}$ or 8×10 enlargements, Haloid, Azo, W. & W.B. B., of Navajo, Zoni and Apache, Indians, squaws and paposes, animals and birds; for animals, birds, pictorials or anything of merit.

Class 1.
4919—Mrs. M. E. Taylor, P. O. Box 298, Garrettsville, Ohio.

Class 2.
4920—B. W. Johnson, Owatonna, Minn.

Class 2.
4921—Carrol B. Nелette, Division of Photography, Pennsylvania State College, State College, Pa.

$3\frac{1}{4} \times 4\frac{1}{4}$ to 16×20 , D. O. P., platinum and bromoil, of portraits, figure studies and landscapes; for landscapes, nudes, good portraits and figure studies and marines. Class 1.

4922—W. H. Burwell, 513 Santa Fe Ave., La Junta, Colorado.

$2\frac{1}{4} \times 3\frac{1}{4}$, developing paper, glossy and matte, of still life, school scenes, no scenery subjects at

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

present; for anything of interest, mountain and ocean views especially. Class 1.

4923—Lawrence B. Fitch, Box 2 Sta. A, Johnsonburg, Penn.

3¼x5½ or 5x7, Azo, of views; for anything of general interest. I desire to exchange views and post cards. Class 1.

4924—D. H. Rene, 509 Kahl Bldg., Davenport, Iowa. Class 2.

4925—Dan O. Smith, 750 Pierce St., Gary, Ind. 3¼x5½ and 5x7, Azo E grade, of Indiana sand dunes, camping, and misc.; for anything of general interest. Class 1.

4926—Elmer O. Underwood, R. D. 1, Box 34, Dufur, Oregon. Class 2.

RENEWALS

1572—Harry E. Bishop, 3344 Michigan Ave., Chicago, Ill. Class 2.

2776—L. A. Sneary, 2822 Espy Ave., Pittsburgh, Pa. 3¼x5¼ to 5x7, of things characteristic of locality; lantern slides. Class 1.

4107—Frank Patterson, P. O. Box 721, Medford, Oregon.

All sizes, of nudes, lantern slides of Western scenery; for the same. Class 1.

4435—W. M. Keck, Princeville, Ill.

4549—Fred Goodin, Covington, Ind. Up to 5x7 and enlargements 14x16, developing, of good scenery, bathing girls, nudes and flower studies; for the same. Class 1.

4567—G. W. Johnson, 30 Mitchell St., Jackson, Ohio. Class 3.

4718—T. G. Duvall, 753 Pacific Electric Bldg., Los Angeles, Cal. Class 1.

4719—Lewis F. Stout, Wapakoneta, Ohio.

CHANGE OF ADDRESS

4904—A. V. Stubenrauch, 3120 Lewiston Ave., Berkeley, Cal. (Was 15 Wright Bldg., Berkeley, Cal.)

STATE SECRETARIES

California—A. E. Davies, 1327 Grove St., Berkeley.

Colorado—H. E. High, 1023 Champa St., Denver.

Idaho—Eugene Clifford, 902 9th Ave., Lewiston.

Iowa—Harry B. Nolte, Algona.

Kansas—H. H. Gill, Hays City.

Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.

Missouri—J. F. Peters, Room 210 Union Station, St. Louis.

New York—Louis R. Murray, 927 Ford Street, Ogdensburg.

Oregon—F. L. Derby, La Fayette.

Texas—Emmett L. Lovett, care Southern Electric Company of Texas, Wichita Falls.

ALBUM DIRECTORS

Alabama—Richard Hines, Jr., Barton Academy Bldg., Mobile.

California—W. E. Thomson, 3211 School Street, Fruitvale.

Colorado—O. E. Aultman, Pledsted Bldg., Trinidad.

Connecticut—Harry E. Carpenter, 389 Remington Ave., Bridgeport.

Florida—Capt. E. S. Coutant, Lock Box 73, Stuart.

Georgia—L. O. Surles, P. O. Box 434, Cuthbert.

Idaho—Eugene Clifford, 902 9th Ave., Lewiston.

Illinois—George A. Price, Box 286, Champaign.

Indiana—H. E. Bishop, 551 E. 40th St., Indianapolis.

Iowa—C. W. Parker, Mapleton.

Maryland—E. G. Hooper, 218 East 20 Street, Baltimore.

Massachusetts—John Mardon, 10 High St., Boston.

Michigan—W. E. Ziegenfuss, M. D., 171 Richton St., Detroit.

Minnesota—Leonard A. Williams, 622 2nd Avenue South, St. Cloud.

Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.

Missouri—Wharton Schooler, R. F. D. No. 2, Eolia.

New Jersey—Arthur H. Farrow, 51 Richelieu Terrace, Newark.

New York—Charles F. Rice, P. O. Box 517, Mamaroneck.



NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

Reported by William Wolff

Colman Schwartz has left Howland & Dewey Co., Los Angeles, and is now in his Pomona store. Good luck, Colman.

Miss Hall, who for a number of years had charge of H. A. Taylor's San Diego Art Shop, was married in Riverside, April 18th. Mr. Taylor motored up from Coronado to attend the happy event. Greetings to the bride.

Listen, dealers, have you seen the Milner Light Gauges? No? Better write Hirsch & Kaye, distributors for Pacific Coast, today.

Dorman Bros. of Bakersfield have a new Stephens car.

E. M. Hammond of Porterville was ill with grippe. He is again about attending to his studio.

Mrs. C. C. King of Tulare is in Los Angeles taking a much needed vacation.

H. C. Jensen of Selma is busy with school work.

Leo Drossel was in Fresno recently and reports mount business very good. He is on his way to Birmingham, Ala.]

F. C. Sluffert of Modesto has given up portrait business. He is just doing amateur finishing and has a line of stationery, etc.

Carl Broden of Modesto is kept busy between his studio and ranch.

Jos. Thullen, artist, photographer of Merced, is very busy in Fresno and has a contract to make all the floats for Raisin Day celebration.

Second Annual Exhibition

Announcement has just been made that the dates for the Second Annual Exhibition of Pictorial Photography, to be held next fall in the Frederick & Nelson Auditorium, Seattle, Washington, have been set for November 1 to 12, inclusive.

This competitive exhibition was inaugurated last fall there being 1100 entries, from more than forty states, while Canada and several foreign countries were represented. Last year the competition was limited to the work of amateurs, but this year restriction has been removed and invitation extended to all pictorial photographers, whatever their status and wherever located, to send in their prints.

There are no separate classifications in this competition, portraits, studies in still life, landscapes—all types—entering on an equal basis, the only restriction being that hand colored photographs are barred. The board of judges will be selected from among the most prominent photographers and painters in the Northwest. The prizes offered are: first prize, \$100; second prize, \$75; third prize, \$50; five prizes of \$10 each and ten prizes of \$5 each. The exhibition will be held in the Auditorium of the Frederick & Nelson store, a large hall especially well adapted to this purpose.

Thousands of visitors inspected the exhibit last year, it being free to the public. The first prize was awarded to a photograph entered from Brooklyn, New York, but several entries from the West ranked high among the prize-winners.

The object of the exhibition is to encourage the cultivation of photographic art in the Northwest, both by offering artists of this section a chance to show their work in competition and giving them a chance to compare their own productions with the best of other sections of the world.

On Camera Clubs

A booklet entitled "The Camera Club, Its Organization and Management," has just been published. It is written by Louis F. Bucher, Secretary of Camera Club, (Newark, N. J.,) also Secretary of Associated Camera Clubs of America.

NOTES AND COMMENT

This work represents Mr. Bucher's experience with the acknowledged assistance received from prominent members of live clubs in various parts of the country; and we were safe in assuming the contents were reliable and also enlightening, for such we found after interested perusal.

There should be a camera club in every town; is there one in your town? There surely must be enough amateur photographers there to warrant it, for amateur photographers are to be met with everywhere.

What are the advantages of a camera club? Mr. Bucher is evidently a believer in the adage, "two heads are better than one," and there is no doubt we can learn more by association than by isolation. It is so much easier to have a friend explain and show you how to do a thing, than be forced to gather all your information from a book, "all by your lonely;" it is much pleasanter, too.

Then there is a great advantage of having the use of club equipment. Most of us work with small cameras now; think of the blessing of having a modern outfit to enlarge by. Many of us would not feel justified perhaps in incurring that expense in apparatus for occasional use, and this is only one item.

The forming of a club as Mr. Bucher tells us, is not an easy going matter; it takes effort and enthusiasm on the part of a few, and these few must set the example with persistency, if worth while results are to be hoped for.

In this booklet we have short chapters on all the essential subjects; Organization Constitution and By-Laws, Plan of Management, Good Fellowship and Co-operation, Sociability, Demonstrations, In General, In Conclusion. We are forced to believe any camera club may be launched and maintained by adhering to the advice given by Mr. Bucher.

Is there a camera club in your town? If not, and some of you think there should be, write to Mr. Louis F. Bucher, Secretary of the Association Camera Clubs of America, 878 Broad Street, Newark, N. J., for a copy of that booklet, "The Camera Club." Organizers of clubs need speculate no longer as to ways and means.

The Contessa-Nettel Line

G. Gennert, manufacturer and importer of photographic apparatus and supplies, New York, has been appointed as sole agent for these cameras in the United States, Canada and Mexico.

There are already forty different cameras in the series with many new ones in preparation which were shown to Mr. Gennert during his visit to the Contessa-Nettel works at Stuttgart. These will be introduced here this season.

The new models include a very attractive line of film cameras embodying novel features and equipment. Examples of the Piccolette and the Cocarette have already reached Gennert, the former is a vest-pocket camera with special features for precision and efficiency; the latter is an elaboration of the same type in sizes $2\frac{1}{4} \times 3\frac{1}{4}$ and $2\frac{1}{2} \times 4\frac{1}{4}$, with other sizes to be added. Many of these models are made in teakwood finish, and also in the familiar leather covered form.

The focal-plane shutter exclusively fitted to the Contessa-Nettel Focal Plane Cameras deserve mention. This shutter is provided with an ingenious breaking mechanism, whose mechanical construction is perfect, ensuring freedom from jar and strain.

Most of these cameras are fitted with lenses manufactured by Carl Zeiss of Jena; other models, with lenses of the well known names of Steinheil and Hugo Meyer & Co., and these offer excellent value.

We are asked to assure the trade that the business in these cameras will be restricted to legitimate dealers.

Book No. 40

This book now accompanies the No. 2 Harvey Exposure Meter, and gives definite instructions as to the proper development of 3 slow and 2 fast plates, with suggestions for others.

Various details of proper dark room work are given to call attention to many of the causes of poor development; and the publisher claims that no meter or book gives such definite instructions as to development; it should prove a great aid to anyone interested in plate development.

This book, No. 40, has among its many good points, one of brevity. Its contents

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are "boiled down," you are offered the pith of what one needs to know.

There is a paragraph in this little book which we take the liberty to quote, it is so packed full of truth; and every novice and some others might well commit it to memory. Fog is due to—plain or warm hypo baths—improper developing formula—improper fixing bath—old stained hypo bath—dirty tanks and trays—leaky plate holders and cameras—no carrying case for plate holders—decomposed pyro—decomposed sulphite—poor safe light—dirty lenses—and though Harvey did not actually say so, the reader can well imagine he also meant—fog is also produced by carelessness, and the list above given only proves it.

The Harvey exposure meter and this little book included sells for \$2.00. The price of the book alone is 35 cents, it is made for the pocket. All dealers carry Harvey's meter, or it may be ordered direct from G. L. Harvey, 105 S. Dearborn Street, Chicago, Ill.

St. Louis Camera Club

This club, organized in 1914, has been of great benefit to its members, who work together for one end—the interest and advancement of the art of photography.

The St. Louis Camera Club is holding its fifth annual photographic exhibit at the Central Public Library Art Room, which opened April 15th and will be continued to

May 1st. The public is again able to note the steady growth of a popular and wonderful hobby in amateur photography.

WITH THE CAMERA

Notes From the Illinois College of Photography, and the Bissell College of Photo Engraving, Effingham, Ill.

The Chicago Tribune is conducting a Beauty Contest. Effingham has a number of aspirants whose pictures were taken by the students. This contest is attracting considerable attention in this section of the country, as \$20,000 in prizes are offered.

An excellent opportunity for photographers of construction work is furnished the students in the road building in this vicinity. Effingham will soon have concrete roads in five directions.

Paul Vreeswyk, a Belgian, who served in the U. S. A. during the world war, is an artist of some repute. He is taking a course in our school to strengthen his art work. He has offered the local A. L. Post one of his paintings to be disposed of in any manner wished.

Mrs. Blanche Gallant has purchased the Black Studio at Lewistown, Illinois. We wish her success.

Chistobal Reel of San Juan, P. R., is taking a course in Photo Engraving. When he completes the course, he expects to return to San Juan where he will do the engraving and color work for his father.



Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, for April 1, 1921, of "Camera Craft," published monthly at San Francisco, State of California, County of San Francisco.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared I. M. Reed, who having been duly sworn according to law, deposes and says that she is the Business Manager of the "Camera Craft" and that the following is, to the best of her knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

Publisher, Camera Craft Publishing Company, San Francisco, California; Editors are Dr. H. D'Arcy Power and Edgar Fellos, both of San Francisco, California; Business Manager, I. M. Reed, San Francisco, California. That the owners are Camera Craft Publishing Company, San Francisco, California; Harriette E. Clute, Trustee, Mountain View, California; Romaine F. Clute and Clifford H. Clute, Beneficiaries, Mountain View, California.

That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent

or more of total amount of bonds, mortgages, or other securities are none.

That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest, direct or indirect, in the said stock, bonds, or other securities than as so stated by him.

(Signed) I. M. REED, Business Manager.

Sworn to and subscribed before me this twentieth day of March, 1921.

SID J. PALMER, Notary Public, in and for the City and County of San Francisco, State of California. My commission expires December thirty-first, 1922.

CAMERA CRAFT



SAN FRANCISCO
CALIFORNIA

DATE OF ISSUE AND TIME OF PUBLICATION

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Expirations—Subscriptions to Camera Craft are discontinued on date of expiration. The date on the address label on the wrapper shows the time to which each subscriber has paid. Thus: Jan. 21, means that the subscription expires with the number dated January, 1921. ¶**Renewing**—In renewing a subscription, do not fail to say that it is a renewal, giving name and address just as now on the address label. ¶**New Address**—In notifying us of a change of address, give both the old and new address. Should you miss a copy through change of address, advise us of the fact, and another will be gladly sent. ¶**Dealers**—All photographic supply dealers and news dealers are authorized to receipt for subscriptions in our name.

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 Camera Craft Publishing Company, Claus Spreckels Building,
 San Francisco, California.

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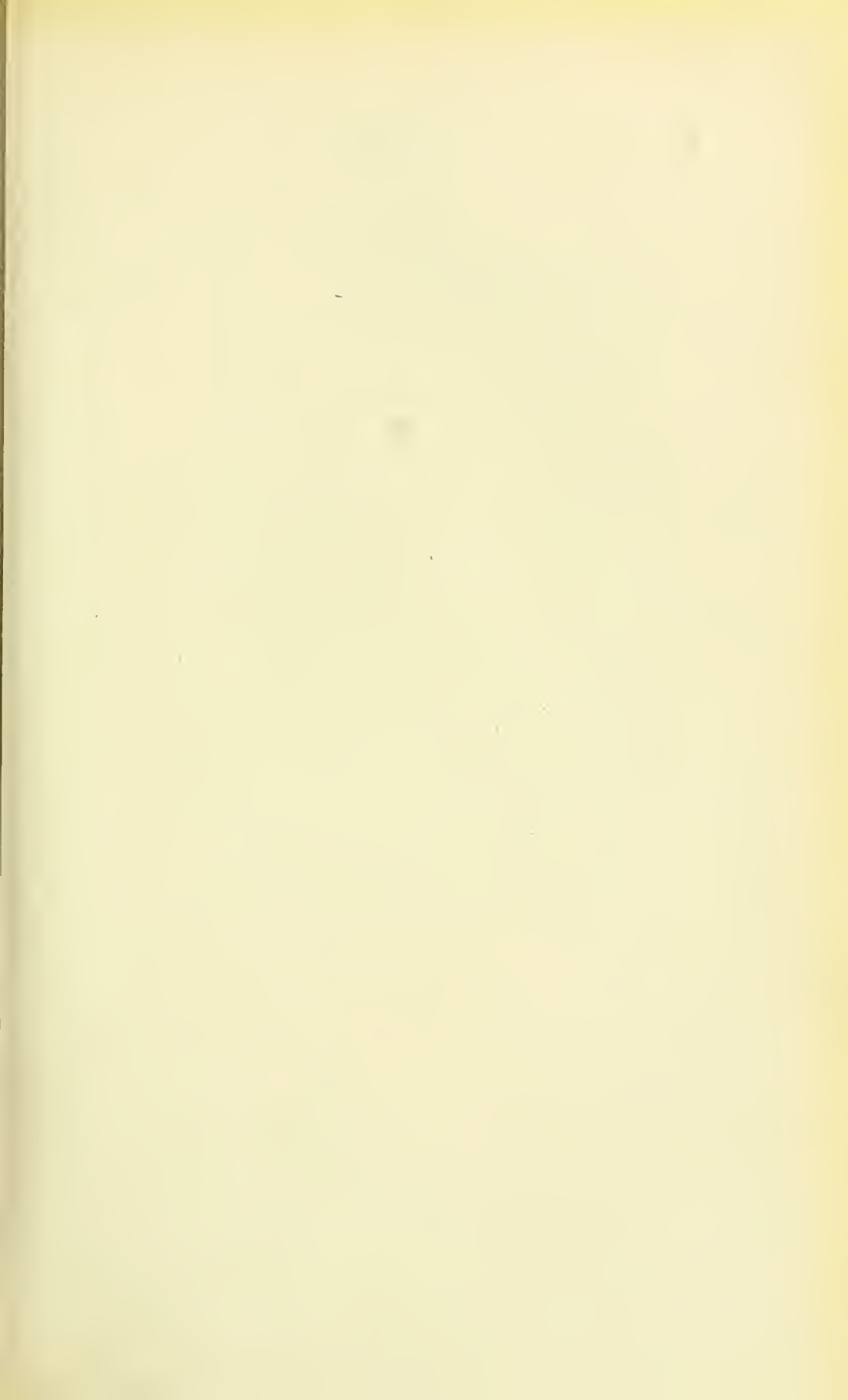
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CAMERA



CRAFT



A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.

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Picture Making in the Rhineland

By **Don C. Coleman**



With Illustrations by the Author

While serving as official photographer of one of the units of the Army of Occupation, the writer was afforded an opportunity to make a great many photographic records in that part of the quaint and romantic German Rhineland centering about the Coblenz bridgehead. Here indeed is the pictorialist's Paradise! From Bingen in the heart of the rugged mountainous region where the river has slowly cut its channel through ages old and long since extinct volcanic craters, to the celebrated university city of Bonn, where it widens out on fertile level plains, there is on either side an almost continuous succession of picturesque and stately castles, a few kept up and inhabited, the others gray and overgrown with ivy, fallen in ruins.

Rich in folk lore and legend, the Rhine has furnished a theme for writers and poets of many lands; it provides the setting for Wagner's beautiful and tragic opera, *Lohengrin*, and for Heine's wonderful and masterly poem, founded on the old fable of the *Lorlei*. Each vine clad ruin has its place in song or verse; in *Childe Harold*, Lord Byron writes,

"The castled crag of *Drachenfels*
Frowns o'er the wide and winding Rhine,
Whose breast of waters broadly swells
Between the banks which bear the vine,"

while our own Longfellow, in *Hyperion*, sings the Rhineland's praises and the Frenchman, Victor Hugo, devotes an entire book to a charming and

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highly interesting description. However, the world-wide interest in this most famous of European rivers is not due solely to its legendary associations or the grandeur and beauty of its verdant castled slopes, but also to the fact that it has been the scene of important historical events, affecting the destinies of nations, from the time of the early Romans up to the present day. Its banks have echoed the hoarse shouts of the barbaric hordes of Attila, sweeping westward to ultimate defeat at Chalons-sur-Marne and they have resounded with the triumphant martial strains of Napoleon's victorious army moving eastward in 1812 to carry out his disastrous campaign in Russia.

It is not the purpose of this paper to enter into a detailed account of the Rhineland's history, which is without doubt quite familiar to most readers, yet in passing it may not be amiss to mention that Caesar bridged the Rhine in 55 B. C. at the point where the village of Irmitz now stands and in the old St. Castor's church within a stone's throw of the confluence of the Moselle and the Rhine at Coblenz, St. Bernard preached the Second Crusade.

There is such a wealth of material in the immediate vicinity of the river to engage the attention of the cameraist that he need not stray into by-ways in search of photographic possibilities, yet partly through having to visit out-of-the-way places in an official capacity, photographing billets, mess halls and other construction work performed by the various units, and partly through a desire to obtain pictures of an unusual, or at least uncommon nature, the writer made some few negatives of scenes and places not likely to be mentioned in the guide books or depicted on the ordinary colored post cards.

Such a place is Wernerseck! Inland from the river and the river city of Andernach, it is quite out of the beaten path of the tourists and is not easily reached even from the near-by village of Plaidt. Surmounting an almost inaccessible crag, its single standing old gray tower, ominous and foreboding, silhouetted against the lighter sky, Wernerseck though in ruins creates an impression of formidable strength. This impression is heightened to a considerable degree by its bleak and barren surroundings and isolated position. A turbulent and noise-some little mountain stream winding about the jagged cliffs crowned by the castle ruins, separates it from the adjacent country and forms a natural moat that, in the golden days when knighthood flourished and staunch yeomen fought with cross-bow and battle axe, must have presented a serious obstacle to any hostile movement.

Another quaint spot, well worth a visit by the camera enthusiast, even though it is quite unknown to the majority of continental travelers, is the quiet and secluded old Abbey at Laacher See. The monastery buildings nestling at the foot of one of the thickly wooded hills encircling a tiny lake, present a scene of such rare and exquisite beauty that the painter, with the wealth of colors at his command and the decided advantage that his medium gives him over his fellows who work in monotone, may well despair of giving proper semblance to the subject. No other scene has ever given

PICTURE MAKING IN THE RHINELAND

The Round Tower, Andernach

Typical Village Street

St. Castro's Church, Coblenz



A Street in Mayen

Pontoon Bridge at Coblenz, and
Ehrenbreitstein Fortress

Tower and Old Wall, Andernach

the writer a feeling of such pastoral peace and tranquility as the idyllic picture that lay before him, when at the close of a serene summer's day he looked down from a distant height and beheld the gray old monastery walls glorified in the last rays of the setting sun and faintly heard from far across the waters the tinkling of the monastery bells.

In the little village of Bacharach and its environs the camera worker will also find a great deal to interest him. Although on the river and engaging in the river traffic to an extent out of all proportion to its size, it is not generally considered, comparing it with other points of interest on the river, as important enough to warrant a stay of any length. However, an inspection of the accompanying prints will prove that even in this small village there are numerous opportunities for pictorial expression. Much of the old wall with its watch towers and turrets, which in mediaeval times entirely enclosed the town, still stands, a constant memorial to the untiring energy and faithfulness of its builders, while upon the lofty heights above the narrow village streets stand the few remaining stones of Stahleck

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castle and a short jaunt up the river and on the same side are the picturesque ruins of Furstenberg, concerning which there are many pretty legends.

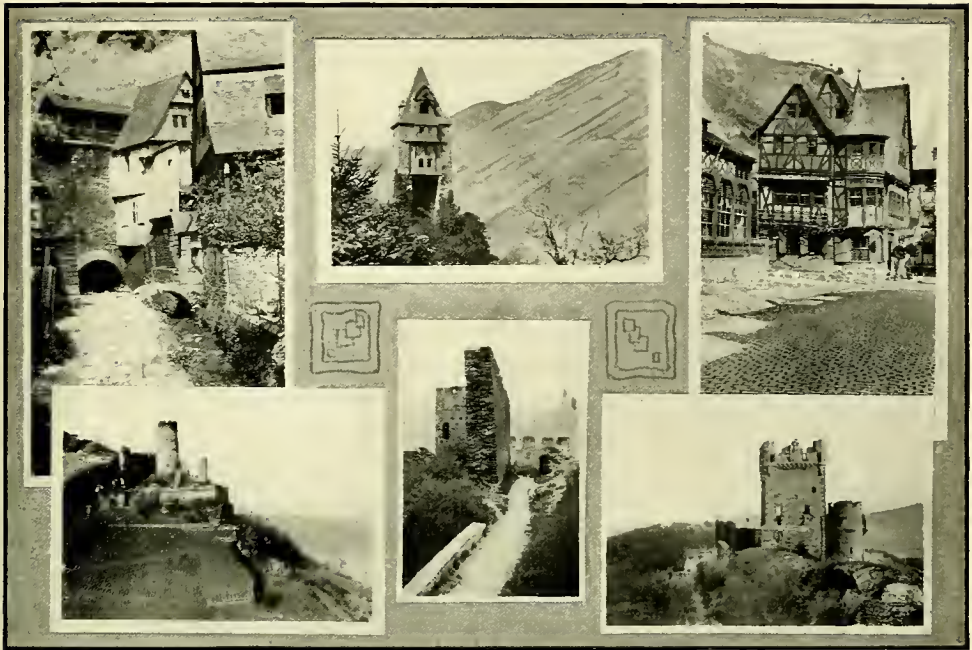
A word now as to apparatus and methods employed in this work; the negatives were made with the 3A Graflex fitted with 4.5 Tessar, regularly supplied with the army reconnaissance outfit and a small roll film pocket camera specially fitted with a 6.8 Collinear of four and a quarter inches focus. The writer was privileged to use the Graflex for his personal work by purchasing his own film and found it an excellent and dependable instrument, though one that could hardly be recommended for the average traveler because of the inconvenience of its weight and bulk. The smaller camera also proved to be entirely efficient and satisfactory and was the means of obtaining a great many negatives on trips where the larger one had to be left behind. Some might object to negatives as small as two and a quarter by three and a quarter inches, but enlargements from these up to five by seven have compared very favorable with contact prints of the same size and when examined for depth of field the advantage is all on the side of the enlargement from a small negative. For those who prefer a larger print and do not care to take up enlarging, the popular 3A roll film camera should prove a valuable accessory to the traveling kit, or, if that should seem too bulky for carrying about at all times (and one should carry his camera about at all times when traveling or he will miss many a fine picture) surely the three and a quarter by four and a quarter size would not be inconveniently large. As a matter of fact cameras in either of the above mentioned sizes are to be had exceedingly small and compact. Above all things the purchaser of a small camera should assure himself, especially if he intends serious work, that the camera he buys is provided with the little rollers or riders to carry the film across the focal plane and that they turn freely. A great many foreign manufacturers and some here at home, in order to make their small models compact have sacrificed this feature and as a result the rubbing of the film across the back frame work of the camera as the winding key is turned causes a series of parallel lines or scratches across the negative. This trouble is most noticeable in warm weather when the film is soft, but owing to the "contrariness" of things in general and things pertaining to photography in particular, can be depended upon, ninety-nine times out of a hundred to show up on those very negatives which were most difficult to obtain or could not be duplicated. A small German camera purchased in Coblenz, which for the sake of compactness and pleasing proportions had not been equipped with the essential little rollers, gave the writer no end of trouble because of these friction marks. Several rolls of film exposed at Stolzenfels castle, (formerly owned by one Mr. William Hohenzollern though never used by him as a residence) were utterly spoiled on this account and because they were spoiled and highly prized the opportunity never came to make the second visit to this most interesting place.

PICTURE MAKING IN THE RHINELAND

A By-way of Bacharach

Old Watch Tower, Bacharach

The Old House



Ruins of Stahleck, Bacharach on Rhine

Furstenberg Ruins

Wernerseck

A number of the earlier negatives turned out quite disappointing—some were really failures, caused by the fact that the camera used for the smaller work had been originally fitted with a lens of three and one-half inches focus and when this was replaced by one whose focal length was four and a quarter inches, there was a considerable difference between the image as seen in the finder and that reflected by the camera lens. This was directly responsible for many high crimes and misdemeanors, such as the cutting off of the hands or feet, and at times even the head of an unsuspecting friend; to say nothing of the scandalous liberties taken with church steeples and towers by representing them as having been in the path-way of a violent wind with an uncontrollable weakness for the tops of things. The trouble was finally overcome by gluing to the top of the finder a black paper mask cut out to include only the view as shown on a ground glass placed in the focal plane. Obviously other ways of accomplishing the same result, as for example painting with black matte varnish, will suggest themselves. The point is that the worker with a small camera has a correspondingly small lee-way in placing the image in the picture space and it is therefore all the more necessary that the view he sees in the finder coincides exactly with that shown on the ground glass.

A finder not in proper alignment was also the cause of some little annoyance at first. If, when the camera is perfectly level, vertical and horizontal lines are not parallel to the lines of the finder, it is out of alignment and should be corrected. Should this fault be very marked and it is not made right, the trimming knife will have to be used unsparingly in order

CAMERA CRAFT

to "straighten up" the print. The writer has found an auxillary finder of the direct vision type almost indispensable and especially valuable when working with the camera fairly high—say at eye level, which in many cases gives the most pleasing effects in perspective.

At the time these pictures were taken, very few of the divisions composing the Army of Occupation had been withdrawn and in consequence the photographer was often hampered in his work by the incongruous intrusion of a group of ever-present and all-too-willing dough-boys, who firmly believed that any scene would be greatly enhanced by their presence in the very near fore-ground. An incident of this sort occurred at Laacher See monastery. Seated on a bench in a little garden, with shutter set and everything in readiness, the writer awaited the instant a pious and meditating old monk, all unconscious of any presence should reach a certain point in the pathway. The sage who wrote the immortal words, "There's many a slip twixt the cup and the lip," surely knew whereof he spoke, for just as the venerable monk came to the spot the scale had been set for, and the shutter clicked to register nothing less than a masterpiece, around a bend came three grinning soldiers and again "the one great picture" was ruined!

The German children were not backward or at all camera shy. On the contrary they manifested the keenest interest in the preliminaries necessary to the making of a photograph and upon sighting a camera being made ready for an exposure, would flock to the scene from far and near and assume "artistic" poses in such proximity to the lens that it was but natural to conclude that they one and all were unalterably in favor of what our movie friends term a close up. Here is another argument in favor of the small camera. It is not conspicuous and as a rule an exposure can be made so quickly as not to attract undue attention.

In conclusion about the best advice, based on personal experience, that the writer can give those contemplating very extensive travel either at home or abroad, is to repeat what has already been said—take your camera with you at all times. He makes no claim as to being the originator of this advice, having a very clear recollection of reading it in a photographic magazine some years ago when he was the possessor of his first camera, a dollar Brownie, but he has been made to realize the sound good sense of it time and again and never more so than on the trip home from Germany. Riding down to Brest through battle-scared Belgium, traveling the very route, (Aix-la-Chapelle, Leige, Namur, Mons, Charleroi, Valenciennes) taken by the Germans in their first advance on Paris, and then through the devastated areas of northern France, there was at almost every turn some scene or object that would make an interesting photograph—but the cameras had been sent on ahead with personal effects! Then again on ten days' trip on the water homeward bound; what wonderful opportunities, the transport plowing through heavy seas in the Bay of Biscay, the passing liners and a most rare sight, a full rigged sailing vessel; finally the exciting scenes on board when the low ragged Jersey coast line was sighted. But anyway it is always the big fish that slip off the hook and the best pictures are those we could have taken IF—

PICTURE MAKING IN THE RHINELAND

Monastery at Laacher See

Architectural Detail

Entrance



A Distant View of the Monastery

A Gate Post

A Cloister in the Building

TWO KINDS OF PHOTOGRAPHERS

One photographer has the motive of service to the people. The other photographer has the motive of making money.

Photography is a profession for one, it is an occupation for the other. One photographer has taken the work up permanently. The other man has taken it up just temporarily, to make money.

One man attends conventions and special lectures. The other man never has time for such things.

One man seizes every opportunity to become acquainted with the leading photographers. The other man is indifferent.

One photographer makes himself familiar with the latest methods. The other photographer calls these methods "new-fangled."

One man really likes his work. The other man looks forward to Saturday night and to holidays.

One photographer figures how he can be more valuable to the people. The other photographer figures out how to make more money.

One man takes one or more photographic magazines. The other photographer says that he does not bother to read them.

One man studies the needs of his studio. The other man never thought that needs could be made a study.

One man looks upon his work as a life of service. The other man looks upon his work as a life sentence.—Roy Irving.

OUR WILD FLOWERS

Kindly Contributed by Our Readers

NO. III. LUPINE OR LUPINUS (Pea Family)

Starting in late March and continuing through the first months of Spring, there is hardly a place where one will not find the long blue and purple spikes of the wild Lupine. It was once thought by farmers that the Lupine usurped the fertility of the soil, perhaps that is where it got its name, from **lupus**, meaning a wolf. But, we now know it is harmless, content to bloom upon gravelly banks, along railroad tracks or out in untilled fields. In California one finds the blue and purple lupins and often times the yellow.

The Lupin is a member of the pea family and can be classed a legume. If you will pull up one by the root, you will note tiny nodules containing nitrogen bodies, which are necessary to plant life and fertilize the soil. Many varieties of peas are grown by farmers, for the sole purpose of fertilizer and are plowed under to enrich the land.

The Lupine blossom has the same peculiarity as other flowers of the pea variety, the weight of a bee causes the two side wings of the flower to open, exposing the pistil, stamens and nectar. When the bee abandons the bloom it closes, and protects the pollen.—A. V. Stubenrauch.



My Hobby

By P. Douglas Anderson.



With Illustrations by the Author

Everyone should have a hobby of some kind. What is pleasanter than making pictures that are worth while, with a camera as the medium that records what you saw, at a scene on a hike, a fishing or hunting trip, or on sight-seeing tour to different parts of the country; or those corners and faces around home that are dear to us. They are a pleasure now, but years later, what memories will they recall.

No one need be without a camera, there being quite a varied assortment to choose from at prices to suit every pocket. I use a 4x5 Sanderson, fitted with the Wollensak Lens, nine inches focus and with it, all these illustrations were made. Sometimes I go over new country with a pocket Kodak, though the other camera is my favorite; and now for the prints themselves.

"Wanderers from Home," was made at Santa Cruz, where my wife and I have spent many enjoyable vacations. We strolled to this point, to look back at the town and naturally we wanted a study from there. I got the camera ready.



WANDERERS FROM HOME

Exhibited at Los Los Angeles International Salon 1921

CAMERA CRAFT

the picture composed as I wished, left everything in care of my wife and went to the beach again in search of two kiddies, to add the human touch to the scheme. I was fortunate in finding two boys that just suited, to give

balance and life to the print. Someone might wonder why I arranged everything before I got the boys. Well, I did not want to keep those kiddies waiting. I wished to make the exposure before the novelty wore off and my subjects became tired of posing.

“A Bit of the Waterfront, San Francisco” was made from Telegraph Hill, early in the morning before the sun had cleared the mists away. Many a trip we made to that point before conditions were favorable. It meant early rising on a Sunday morning, but we secured the effect desired. There was a little excitement



A BIT OF THE WATERFRONT, SAN FRANCISCO

*Exhibited at Canadian National Salon, Toronto—
Los Angeles International Salon, 1921*

while getting ready to make the exposure, as the view point finally selected, left me standing on the edge of the quarry. Fortunately, my wife and I are not over nervous, although she did insist on holding my coat tails, in case I should do the slip act.

The lower branch of the tree that is shown has been broken off since, whether by the elements or parties unknown, I cannot say, but it certainly spoils the look of that tree; and that reminds me, how many times have we come across a beautiful road scene, with some unsightly advertising signs showing all over the most prominent point in the view; one or two we can fix, but a bunch, well, one would sure need some kind of a patent separator.

“Under the Bridge:” The stage is now set in Golden Gate Park, the most beautiful park I have ever visited. It is full of possibilities; water

MY HOBBY

scenes, trees, buildings, all inviting the pictorialist to come and take his impressions of them with his camera. Around Stowe Lake is another favorite walk of ours, with a row in the lake now and again as a change. The beauty of the bridge on the west side appealed to us and naturally a study had to be made of it.

One arch only was chosen and a rowboat included. We had to wait quite a time for the boat, it being early morning, but our patience was rewarded and we have a picture that will always remind us of happy hours spent around that lake. Some that visit Stowe Lake and that bridge, might wonder what were my reasons for selecting just one arch. I will admit that the whole bridge is pretty, but it doesn't tell any story to me, whereas one arch, the water and the rowboat does; and also in its simplicity, there is strength and beauty which the whole bridge does not possess.

My print entitled "Pals," was made among the foothills of Fruitvale. There was a picturesque old ranch there that served me for studies, in the past. One day, being in Oakland, I decided to take my camera and revisit that old place and my wife, the partner of my hikes, arranged to meet me. When I arrived at the rendezvous I found a strange dog had forestalled me and adopted her. It insisted on accompanying us whether we wanted or not. When we arrived, where the old ranch should have been, we found it a thing of the past. It was torn down, and the surrounding land laid out in streets and lots ready for building. We felt regret and continued our way over the hills. On the ascent, friend dog discovered a cat and gave chase.



UNDER THE BRIDGE

*Exhibited at Canadian National Salon, Toronto—
Montreal Exhibition—London Salon, 1919*

CAMERA CRAFT

but the cat was too speedy and "Pal" lost out, coming back looking very disappointed. A little further up the hill, we reached the spot where the picture was made, my wife posed for me while I arranged the composition and when all was ready, the shutter set, I changed places with her, friend "Pal" took his place; he understood the picture was being made for him and he was not camera shy. After my wife had released the shutter, we were finished making pictures for that day; we packed the camera and lunched and how that old dog enjoyed his share, everything tasted good to him. On that hillside we tarried, and had a sun bath and talked of other places that the view reminded us. I was recalled in memory to the place of my birth, on the River Clyde, and it did not take much imagination on my part to conjure San Francisco Bay was that old river, and the ferry boats were the pleasure steamers that paddled their way to the different seaside resorts; but all things have an end and so had our day dreams, and once more we wended our way down the hill homeward. We took the dog back to where he was found, but he refused to leave us and accompanied us home.

"Wanderers from Home" was made with the Verito F-4.5 lens, Ingento Filter Series A, on a Seed non-halation ortho-plate; the plate was tank developed with pyro, and the enlargement was made on Artura Carbon Black, grade E Rough, developed with the maker's own formula.

"A Bit of the Waterfront, S. F." Verito F-5.6, Ingento Filter, Series A on a Standard Orthonon Plate, tank developed and enlarged same as the "Wanderers."

"Under the Bridge," Verito F-5. Ingento Filter A on a Standard Polychrome Plate, tank developed with pyro, enlargement same as the others.

"Pals" was made with the Verito F-5, Ingento Filter A, on a Standard Polychrome Plate, tank developed with pyro, and enlarged on P. M. C. Bromide.

When working the Wollensak Verito lens I find it best to use what I term the outside focus, in other words, rack the lens out until you are in focus and a little beyond, and the rock back until the object is once again in focus and stop; this method of focusing gives a firmer edged drawing than the other way.

I always tank develop my plates; it is an easier and better way than tray developing, and the results are more uniform, also, it shortens one's stay in the dark room. In using Verito lens, give full exposure, use the minimum amount of Carbonate of Soda and slightly underdevelop. The negative, developed this way being thin and yet full of detail, gives the best results when enlargements have to be made. I find that the Artura Carbon Black papers, and the new Eastman Portrait Bromide, is especially fine for exhibition work.

Lately I have been using Eastman Portrait Film instead of plates, with fine success; they do all that orthochromate plates will do, and just a little bit more. They have a longer scale of gradation and are of course non-halation, besides being light in weight and therefore, easier to carry. I develop

MY HOBBY



PALS

*Exhibited at Los Angeles International Salon—Canadian National Salon, Toronto—
Copenhagen Exhibition—London Salon, 1920*

them in the 4x5 Plate tank, six at a time, each one backed with a sheet of glass, with a sheet of the black paper that they come packed with between them and the glass; this simplifies stripping them after developing, before fixing.

And now I will close, trusting that this article will do some good in starting others, intent on making pictures that will remind them in years to come of many happy hours spent in the Great Outdoors.

COURAGE IN BUSINESS

Of what great importance is courage on a business career!


Good ideas are frequent. Splendid plans for organization or improvement exists in nearly every human mind. But because of lack of courage, many fail to work out the good idea or to carry their excellent plans to successful conclusion.

They fear their judgment or their ability. They fear failure and the scorn of the world.

How are they to know the soundness of their judgment or the power of their ability without trial? The world has no scorn for a man who fails, as long as he keeps on trying.

The man who has not the courage to back his judgment is not fit to travel on the road to success.

Cutting down the advertising appropriation when business is dull is like cutting down the cow feed when the milk is short.—Northern Photo News.



Composite Photography

By Edgar Felloes



With an Illustration by the Author

There is one subject which naturally interests many amateurs and that is, the disposal of their photographs for illustrative purposes. Some appear to have done well with it, in figure work, but where such subjects are to be provided, the photographer needs to have a large circle of acquaintances and professional models to enable him to meet the requirements of his very exacting profession. There are few who can do this, and I propose in this article to treat on the landscape and its possibilities, as suitable material.

This field of photographic effort has hardly been touched, in a serious way, nothing to the extent that the figure men have attempted. There is not the call for landscapes that there would be for figure subjects, but I feel sure if publishers could get landscapes with a sentiment, and that suggested a story, they would look upon them with some favor. The average photographic landscape as a rule is not of a high quality. To make my meaning clearer, I would suggest the comparison of a photographic landscape with a painted landscape by an acknowledged artist. Take Corot for instance, his landscapes are simple but how many photographers could anywhere near approach his work. The chief cause for failure is, we can not control our light, this being the case, we must perforce control our print. Some might argue we should wait upon the light, this might take a day, or frequent visits to the scene over a period of weeks, in short it is not practical. And if we should wish to use our work in a commercial way, it is impossible.

For our attempts at control, we would naturally select the conditions most favorable to our subject, to eliminate all unnecessary handwork later. But after having taken all the care possible, we shall probably realize we have fallen short of our aims, generally through unavoidable causes; it is then that the practice I advocate, comes as a real help to us, and the results are only limited by want of experience and instinct for the pictorial. And this word instinct is not to be taken too literally, I am not half as strong believer in the blessings of instinct as I am in the merits of work. It is astonishing what perseverance will do, as against undeveloped instinct; all we really need is a sufficient love for our work, to encourage a lively perseverance, and we will make a showing; nothing can stop us, but—"us."

Have you ever felt, when you have made a print from your view, which looked so good on the ground glass, have you ever felt, a great wish that something was here or there in the picture to complete it? That something might be a cow, or horse, or goat, it might even be a patch of light,

COMPOSITE PHOTOGRAPHY



THE GOAT'S PARADISE

or splotch of dark. If you have ever felt this want, you are ready to go on; if not, that feeling will probably come later with advance in your practice. Do not attempt to add anything to a picture unless the want is felt, it is like trying to write when we have nothing to say, a difficult undertaking, and unsatisfactory at best.

Most of us have at one time or other asked some one to occupy a certain position in our view to add interest, to give "point" to our composition, and some of us have perhaps later regretted it. The human figure when photographed in a landscape is really difficult to handle, the figure itself is very apt to detract attention from the landscape, and sometimes we are not quite sure which was intended by the photographer to be dominant.

I am very glad to have the opportunity to draw the reader's attention to a certain picture in this number of Camera Craft where the human element is exceedingly well treated in a landscape, I refer to the two boys in Mr. Anderson's picture entitled "Wanderers from Home." These little fellows really make the picture, and yet the work still remains a landscape. And the boy on the right in the white shirt is invaluable to the composition, cover up this patch of white and notice how the picture suffers. It takes thought and feeling to produce work of this standard, and the novice must not think it was the soft focus lens; that was merely a means to the end.

Animals in a landscape are in a way easier to handle, that is, they do not challenge the attention in the way the human figure is likely to do.

CAMERA CRAFT

and detract from the landscape, but the difficulty then is to have them just where needed, the faithful old dog is the exception.

Bearing these difficulties in mind, and not forgetting the importance of the element of time to meet commercial requirements, it will be necessary for the photographer to abandon purist ideas with regard to his contemplated undertaking. Any one who may decide to master this branch of the photographic game should feel, the picture and not the photograph is the thing.

There is no necessity to disguise the photographic medium, there is nothing to be ashamed of, for your work if well done will win admiration.

The object of composite photography is to make use of photographs and parts of photographs to complete a picture. It will demand considerable thought and skill to do this kind of work. My subject is not usually treated in the photographic magazines, that is why, I hope, I have selected something that may interest many and perhaps be of profit to a few. The great advantage of composite photography is, we can, when sufficiently practiced, find a use for many of our negatives instead of accumulating an aimless collection.

I have seen many photographs that could have been wonderfully improved with not more than fifteen minutes' work, and I have felt sorry that the makers of these photographs were unable to carry the work on. It is nobody's fault but theirs of course, for in these days their chances of study are unlimited, and the cost is practically nil. Everybody buys magazines now and nearly every magazine is illustrated, all one need do is, to notice how the artists do it, and study the work of the best of them. We do not have to learn drawing, but we do have to learn values, and as we increase our knowledge in that direction, so will our pictures improve by leaps and bounds.

Perhaps you will be interested in an account of the making of the accompanying illustration, it may induce you to experiment a little and some will find it real fun, for one has a chance to exercise one's individuality in a way that is engrossing.

I made the landscape about two years ago, I was not so much attracted by the view itself as its possibilities. It struck me at the time, "if there were only some goats there?" A week ago in looking over some negatives I chanced upon this one and the goats came to my mind, and that gave me the idea of writing this article. But the goats? Well—I did not intend to fall down on a little thing like that; I might say I was on the old stamping ground when it came to preparing an illustration for the press.

An enlargement was made of the landscape and as to the goats, I knew I had a few snapshot negatives in stock. You see, I collect these things for this particular purpose; an artist has his sketch book, I have a pocket camera, it is quite handy to pick up "little bits" goats, cows, chickens, horses, old wagons, in fact any thing; one never can tell when he may want them, but when wanted they are wanted very badly—because of the time element.

COMPOSITE PHOTOGRAPHY



SUMMER



WINTER

In the last number of this magazine, under the caption of "The Pictorial Element," I gave particulars about the two pigments needed and the method of applying them, so I need not at this early date go over the same ground. The enlargement showed a blank sky and the sandy roadway was almost as white, and between the sky and the roadway there were weeds and more weeds. A cow on this kind of fodder would have grown discouraged, but a goat would surely grow fat, hence the title, "The goat's paradise."

The first thing I did to the picture was to apply a coat of black paint over the whole sky, with a rag. The pigment was rubbed on thinly in circles until there appeared over the sky a gray, more or less even, but smooth, with a small paper stump some slightly stronger darks were added, then with a clean, dry rag the sky over the hilltop was lightened and that portion of the picture was left to get partially dry. Had I possessed a suitable sky negative it would have been printed in, during the making of the print. Where one can do so, it is the proper way to work but one has often to make shift, with a rag and a rubber. The next thing I undertook was the sandy road, this needed toning down, for I had decided to have my sky brightest, as the light came from that quarter.

With the same rag and black paint I put a tint all over that road excepting its farther end; if you look, you will notice that is left light, in fact, it is the natural color of the print. The reason for leaving that patch of light, was to repeat the light of the sky and cause the eye to travel from the sky across the picture to that light patch, or vice versa. Following the road, to the foreground is the gray tint alluded to. Now this part was done

CAMERA CRAFT

for the present. Next, the waste of weeds demanded attention. If you notice, the weeds in the foreground to the middle distance are quite dark, and perhaps you will see a strip of gray along the far edge of the weeds. This gray is the natural color of the print, the darker color is applied, and the cottage and tree in the far distance is also darkened somewhat, thus we emphasize two dark plains with a gray plane between; we have by this method developed three planes instead of two, to give variety and help distance.

As I expected, my snapshots yielded several negatives of goats. One negative was of that goat you see in the distance. I selected it because it was looking into the picture. From another negative I selected the white goat for the foreground, from these negatives prints had been made on thin velox paper. I now took a piece of glass, an old negative and lay a print face down upon it; taking a strip of sand-paper with my index finger upon it I began to grind away the paper support to the goat print, taking pains to make the paper thin around the outline of the animal. Hold the print up to the light and one can easily judge the progress of the work, three to five minutes rubbing is sufficient, to have the goat print with a "feather edge." We must have a small pair of sharp scissors, to clip away superfluous paper around each animal. It was time to decide the exact position the goats were to occupy, this was done by experiment, the two animals were placed in their approximate position, and were then moved about to just that place where I thought they would best help the composition, the smaller of the two goats naturally had to go farther into the picture, it was placed where you see it, its head turned looking toward the patch of light and by that means it was hoped to lead the eye to that point. The white goat was placed facing the opposite way to lead the eye to the right.

Having finally decided on the respective positions of my animals, I applied a little "grippit" on the back of each print and pasted it down. The object of the feather edge spoken of was to have these prints lie close and not have any cast shadow caused by a thicker paper which might show in the final negative the engraver has to make.

I next turned my attention to the sky and with an eraser I removed the now partially dry paint in places, also I caught the light on the sand dune to the left of the center in the same way, and also with the eraser I cleaned up what black had smeared over the patch of light on the roadway to give it more decision and snap. The first goat showed too light and was toned down a trifle as it challenged this light patch, the second or nearer goat was toned down also and the light flicked on its neck, back and tail with the eraser. Coming more to the front I lightened the roadway to the right a trifle, then rising immediately above that, I emphasized the light on the weeds and the work was done.

I do not expect many to admire this picture, because, after what I have related it will undoubtedly be branded "Fake," but that does not matter, for my object is to show those who really wish to know a very practical way

COMPOSITE PHOTOGRAPHY



THE COUNTRY INVITES YOU

of arriving at a practical end. Naturally, the work will take practice and the exercise of imagination, and at times one may feel discouraged, but at such times, just think what it would mean, if anyone could jump in and secure proper results, there would then be no demand with that over abundant supply.

Just a few hints to help the novice: When you make a snapshot of any animals or objects with a view to using them as accessories, place on your print the approximate distance you happened to be from that particular object photographed. It is also a time saver to make two negatives of the same object, but from different distances and different angles. A pictorial index of this sort will be of help later in arranging the picture and will aid us to avoid glaring errors in perspective.

Speaking of perspective, I can not do better than repeat what a well known painter said before our class in the student days: "Remember," said he, "though perspective is essential in a picture, yet it should be treated like elastic, you may stretch it on occasions to advantage."

Here is the application of that wise saying. Let us suppose we wish to introduce some domestic animal in a landscape, we may place that animal in its proper place with regard to the landscape and in its proper proportions, in fact we may do the work so exceedingly well that no one would question that the animal was on that spot when you made the picture. Now some would call that a great success, but is it? Let us consider this way; instead of enlarging the cow, or what ever we use, to its really correct size, we make the enlargement somewhat less, and place it in the same position; we notice at once a greater sense of space in our picture and that is desirable, because it appeals to the imagination, other animals then must conform to that one in perspective, but we have stretched a point in perspective in the relation of the animals to the landscape. From this explanation you will realize it is not always an advantage to have photographic accuracy.

The more a picture appeals to the imagination the longer it will be remembered.

PARAGRAPHS PHOTOGRAPHIC

Kindly Contributed by Our Readers

TO OUR FRIENDS—Tell us what you know! Perhaps you have had some photographic difficulty and overcame it—how did you do it? Tell us!

Perhaps you know some photographic "kink" that others would like to know—be generous, help others; tell us what you know!

These paragraphs are yours; to be used for mutual help: let us hear from you—

DRYING FILMS—I noticed an article in the January number of Camera Craft suggesting bent pins for holding film-pack negatives and wish to submit for your opinion my method:

Procure a box of O. K. paper clips from your stationer, and place over string and press together on the film. I find this the easiest way of any as it not only holds the film, but it keeps same from sliding on the string and from the ends of the film lapping over each other.—H. R. G., Connecticut.

A QUICK PROOF—If necessity demands a hasty print from a negative for press use, it may be secured in the following way:

The negative is developed as usual, let us say this takes six minutes, it is not fixed, but is placed under the faucet to remove developer. During this time, the photographer puts a piece of bromide paper in a tray of clean water to soak, and in four minutes the negative is sufficiently washed to print.

Remove the wet bromide from the tray and gently squeegee it onto the negative; see that no air bubbles are imprisoned between the paper and negative, wipe the face of the negative dry, and lay it on a table under the light and expose, allowing four times normal exposure. Develop and fix the print, it is then rinsed and turned over to the engraver who sticks the wet print onto his copying frame and proceeds as usual. The total time of twenty-five minutes is sufficient to have copy in the engraver's hands.—W. W., Illinois.



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A PHOTOGRAPHIC MONTHLY

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Realism and Idealism.

Broadly speaking, photography today, is divided into two classes, pictures of the sharp, clear type which reveal all that the eye sees, with extraordinary precision and pictures of a more impressionistic order, which record the salient points of the composition and leave the rest to poetic fancy.

The first class has a great following and is the more popular. To excel in it demands great technical knowledge and exact practice.

The second class, though demanding skill, follows a course of other ideals, and the devotees of this form of photographic art are known as pictorialists.

The photographs sent in by Don C. Coleman to illustrate his article, "Picture Making in the Rhineland," were all made with a hand camera, and when we declare they were as good as they could possibly be, we have said all. It was on account of the technical excellence of these views we were enabled to give so many of them, though of small size, in our three groups and they show up very satisfactorily.

P. Douglas Anderson in "My Hobby," shows us a type of picture which appeals to the newer school. Among many of these workers the soft focus lens finds great favor, and the results with these types of lenses (there are many of them) are very pleasing, but one must see such prints to appreciate their beauty.

The pictorialists today are certainly gaining followers, their influence is being felt all over the land. Out here in the Far West there is intense interest in this ultra modern conception of photographic Art. There are men and women here who take their art and their aims seriously and this this promises well for the future of pictorialism.

To the south of us in Los Angeles there is quite a colony of these enthusiasts and the work the best of them do is of a very high order.

Our city, San Francisco, has decided to look to her laurels, and the new Pictorial Society of San Francisco will before long make itself felt. San Francisco has the right material, in earnest and capable workers and when their first Salon opens they will have a creditable showing. There will probably be a wholesome spirit of rivalry between the brothers of the South Land and brothers of the North, but when it comes to making a showing before the rest of the photographic world, California will step forward as one, and like our emblem, she will be—A Bear.—E. F.

Desensitol

It remains to be seen with what favor photographers generally will regard Desensitol or its equivalent in destroying the light sensitiveness, even in part, of plates to be developed. Desensitol is a trade name, so we understand, for Pheno-saffranine, which at present is not readily obtained in this country, but this difficulty will probably last only a short time; if there should arise a demand we may be sure it will be met.

Desensitol, or what ever may be used in its place, will be a positive boon to photographers who are in the habit of using color sensitive plates, especially panchromatic plates, because working with them was decidedly trying.

For those photographers accustomed to use the tank method of development the advantage is not apparent with the exception perhaps of panchromatic plates, and then only as an extra precaution.

For the amateur who may only desire to develop a single plate or film and who uses a tray for economy of developer, this dye method has much to recommend it, it seems almost unbelievable that we can again develop with the light of the old wet plate days.

Home Portraiture

In response to a request by one of our subscribers for a practical article on the at home portrait, and believing the subject will interest others of our readers, we have decided to take up this subject for the April number of this magazine to be published June 13th.

Probably every owner of a camera tries his hand at this branch of photography sooner or later—generally sooner. The home portrait when carried out in the garden, or at least out of doors often gives excellent results. These pictures may not have the technical qualities of gallery work, but few care for that; there is an atmosphere about the home portrait which we never seem to get anywhere else, it is usually, even when half successful, the picture we like better than any other.

From the garden to the house is but a step and it is most natural to select the living room or some cosy-corner in the place for our background, here we meet some difficulties for the novice, and we might add for most people. Our lights often are harsh and our shadows are black, as a rule, and somehow or other our print is disappointing, it does not come up anywhere near what we expected.

Amateurs seldom take the trouble to study the use of the reflector, without it we can hardly hope for success. With it, used intelligently, our work will show improvement. And this reflector, which might strike the novice as something expensive is, in this instance, just another name for a white sheet of fair size.

Like all other difficulties, practice will overcome them, and we will try and make the subject just as plain as we are able, so that those who have failed may be tempted to try again.

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

Quinone in Reducing, Intensifying and Toning

The recent paper by MM. Lumière and Seyewetz on the use of quinone and other oxidizing agents for the conversion of silver images into bromide or chloride marks the latest stage of a series of experiments, the first of which dates from more than ten years ago. Since the employment of an organic oxidizing agent for this purpose represents a process which has been little applied to such photographic operations as reduction, intensification and toning, it may be of advantage to trace the stages through which it has passed. MM. Lumière and Seyewetz first drew attention to the use of quinone as a reducer of negatives in a paper* read before the International Congress of Photography at Brussels in August, 1910. They found that certain quinone bodies in acid solution act as reducers, giving effects similar to that of persulphate. The bath found most suitable was the following:

Benzoquinone	5 gms.....45 grs.
Sulphuric acid	20 c.c.s.... 3 drs.
Water	1,000 c.c.s....20 ozs.

This is a solution of clear yellow color at first, becoming brown in time, even in the dark, and then depositing a brown precipitate. It does not act on the negative at once. After some minutes, apparently after the solution has penetrated the film completely, the action commences, the denser parts being reduced before the lighter tones. The action is arrested by rinsing water and then placing the plate in 20 per cent soda sulphite solution. This bath also dissolves the silver chloride which is formed in the film from the presence of chlorides (sodium chloride) in the wash water. So far as our knowledge goes, the quinone reducer, however, has never come into widespread use as a substitute for persulphate, although Stenger and Hel-

ler, in a paper in "Photographische Rundschau"† confirmed the French experimenters' observations as to the proportional reduction, in the persulphate manner, through a scale of densities, and further showed that an effect more akin to that produced by Farmer's reducer was obtained by cutting down the period of action or by increasing the proportion of sulphuric acid. Stenger and Heller also showed that by addition of chlorides to the reducing solution in small proportion, such as about .02 per cent, the action was almost exactly similar to that of the hypo-ferricyanide reducer of Farmer.

MM. Lumière, in a subsequent paper,§ extended the application of quinone to intensification and color toning. They pointed out that benzoquinone, as also its sulphonate, in conjunction with a bromide or chloride acts as an intensifier of the silver image. Plain quinone compound gives greater density than the sulphonate; and bromide, better results than chloride. The following are the formulae recommended for intensification:

Quinone.

Potass bromide	25 gms.....220 grs.
Quinone	5 gms..... 44 grs.
Water	1,000 c.c.s.... 20 ozs.

Sodium Quinone Sulphonate.

Sodium quinone sulphonate	10 gms..... 90 grs.
Potass bromide	25 gms.....220 grs.
Water	1,000 c.c.s.... 20 ozs.

This solution forms a single intensifying or toning bath. The image produced by it has a slight general opacity which disappears on immersing the plate, after a brief rinse, in a solution of ordinary ammonia of 10 per cent strength. The quinone-sulphonate gives a more yellowish and less intense action, and the first formula is preferable to the second, although the former has a slight sharp odour whilst

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the second is odourless. The intensifiers also exert a strong hardening action on the gelatine film. MM. Lumière pointed out that the intensification produced with this single solution is of considerable degree and is practically permanent, the intensified image only browning slightly under the prolonged action of direct sunlight. They also indicated the variations in the color of the deposit which may be produced by the use of other subsequent baths than ammonia. Sodium or potassium carbonate, hypo, sulphite or bisulphite, and diamidophenol developer form baths which can be used for this purpose and permit of a distinct variety of tones being obtained. The process in this form is an excellent one for the toning of lantern-slides, the amidol bath yielding a fine purple-brownish black. At one time we made a great many lantern-slides in this way and were exceedingly pleased with the agreeable and rich tones. One of the best was obtained by following the quinone toner with a weak bath of ammonium thiomolybdate, which at that time was on the market as a solution sold as a substitute for sulphide. One recommendation of the process, which particularly appeals to makers of lantern slides, is the avoidance of mercury compounds which under the heat of a high-power projection light-source are liable to undergo changes leading to the disfigurement of the transparencies. The process of employing quinone for these purposes of intensification and toning was protected by patent by MM. Lumière.‡

The use of quinone in intensification and toning was carried a stage further by Mr. John Goulding,** whose contribution, we must confess, we had unfortunately overlooked in adding a note to the paper in our issue of January 7 last. MM. Lumière first used quinone with acid as a reducer; then with bromide as an intensifier or toner. Mr. Goulding carried the process a stage further by employing quinone in conjunction with hydrochloric or hydrobromic acid as a bleacher. He pointed out that a mixture of quinone and hydrobromic acid allows of a stainless bleached-out bromide image being obtained from an ordinary black bromide print. The image can be

treated in any of the customary ways, such as re-development or treatment with sulphide. And he further emphasized the advantages of quinone in the shape of its tanning action on the gelatine and its freedom from tendency to stain the high-lights. It will thus be seen that when employed in this way quinone is comparable with the many formulae, such as ferricyanide and bromide, bichromate and chloride or bromide, in presence of an acid, which serve to convert the silver image into a haloid compound. The interest of the question, and one that has been further set forth in the most recent paper by MM. Lumière and Seyewetz,†† is that in this application of quinone we have a solitary example of the use of an organic oxidizing agent for the conversion of the silver image into bromide or chloride; and in a form which is suitable for practical purposes. It is, however, hardly conceivable that there are not many other organic bodies which may perform this same function and may possess advantages of one kind or another not exhibited by quinone.

—B. J. of Photography.

Stereo-Autochromes With a Hand Camera

At a recent meeting of the French Photographic Society, M. Ch. Adrien showed a camera of the folding pattern adapted for the making of stereoscopic Autochromes. A special lens-board carried the two short-focus lenses, mounted at a separation of 60 mm. M. Adrien arranged the baseboard in a position inclined below the horizontal in order to avoid cut-off when using lenses of this short focus. He fixed a wooden partition between the back frame of the camera and two slots in the lens front, and in this way was able to keep the front and back in the necessary position. Moreover, a groove in the front edge of the partition allowed of the latter being lengthened by utilising a black card folded on itself when employing the single components of the double lenses at twice the customary focal distance. M. Adrien showed his method of mounting the negatives (made on 9x12 cm. plates) so as to obtain a stereoscopic pair 8.5x17 cm. For this purpose a strip of 5 mm. width was cut from the upper or lower edge of the plate, and the two

A PHOTOGRAPHIC DIGEST

images then separated. Templates of card may be readily made for carrying out the cutting accurately, and when assembling the two separate negatives on glass, a strip of card of 5mm. width is placed between the two, whilst two others of 25 mm. compensate for the difference of length. M. Adrien showed a fine collection of stereoscopic Autochromes taken with the camera which he had adapted in this way. At the same meeting M. Schitz mentioned the use which he had made of various light filters during a single exposure of the Autochrome plate for the purpose of avoiding general blue-green predominant tint. In addition to the customary Autochrome light-filter, he employed during a variable fraction of the time of exposure a deep yellow screen and a red screen, e. g., the Wratten G. (yellow) and A (three-color red). He employed the first for about 10 to 12 per cent of the total time of exposure, and the second for about 5 to 8 per cent of the time. The results obtained were excellent in all respects.

Autochrome Development

In a recent issue of "Photo-Revue" M. M. R. Espitallier writes of his satisfaction with diamidophenol for Autochrome work, both as a developer in the first instance, and also for re-development. The adoption of the developer for this latter purpose was the means, in his experience, of avoiding frilling of the film. M. Espitallier works as follows:—A red light is used in the dark room and is covered for the first minute or two whilst the plate is immersed in a desensitising bath consisting of:

Potass bromide	1 gm.
Soda bisulphite lye.....	2 c.c.s
Water	100 c.c.s

At the end of about two minutes the plate may be exposed to red light; it is rinsed for an instant, and then developed in the ordinary diamidophenol solution made up according to the Lumière formula. Development is stopped at the point when the negative image begins to disappear. The plate is then again rinsed, reversed in a bath of acid permanganate or bichromate and re-development carried out with

the same diamidophenol solution. M. Espitallier finds this process simple, practical and economical.

Amidophenol Developers

A recent patent specification, No. 154,198 (not yet accepted), of Hauff & Co., relates to photographic developers of the amidophenol or amidocresol class made with the addition of sulphite and soda or potash, and wherein alkaline salts of the carbo- or sulpho-acids of the ortho- or para-amidophenols of the orthoparadiamidophenols are present. In order to restore to such solutions containing carboxyl and sulpho-acids of their original developing powers a further quantity of free caustic alkali is added. A developer instanced contained muriated paramidosalicyl acid (100 gms.), sulphite free from water (500 gms.), normal lye of five-fold strength (210 c. cs.), and water (5,790 c. cs.). For use, this stock solution is diluted with an equal or double quantity of water, and a further quantity of ordinary soda lye added, according to the exposure and requirements.—B. J. of Photography.

Autochrome Reproductions

The March issue of the "National Geographic Magazine," which is almost exclusively devoted to an illustrated account of the Ross-Smith aerial voyage to Australia, contains a section of full-page reproductions in color of Autochromes by Miss Helen Messinger Murdoch, whose magnificent work in the Autochrome process was a feature of R. P. S. exhibitions a few years ago. Miss Murdoch has traveled over a good part of the world, and her color photographs made in Ceylon and India, which here lighten the monochrome pages, provide an illustration of her skill in landscape as well as in portraiture. The half-tone three-color reproductions have been exceedingly well done, though necessarily are not comparable with the originals for brilliancy and fidelity of color rendering. The magazine is published at Hubbard Memorial Hall, Washington, United States.—B. J. of Photography.

THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

Think About It!

If you have an automobile, of course you have a windshield, "if not, why not?" That wind-shield of yours is quite a contrivance, especially in a freshening breeze.

Mentioning breezes—a subscriber blew into the office the other day and said—"I have a great idea—yes, indeed I have!"

"You have? I have awaited your coming Mr. Idea—the chair is your's—that idea please, in one dose!"

"Well sir, a windshield and a tripod are the same, they don't look exactly alike, but they are exactly the same.

"See this thing, it's an Optipod, a Universal Clamp and Tripod Head Combined, made by Eastman; I fix it to the windshield—no, it can't scratch or damage the shield a bit. On this Optipod stands the camera, you see it's perfectly secure, and the camera may be pointed in any direction, and up or down, in fact we really Kodak as we go.

"My wife made a cover to slip over the camera as we run, to keep the dust out; this cover is removed in an instant.

"See this other thing, its a Light Gauge, and it is as accurate as it is 'nifty'—tells you all you need know—in a second.

"What is the use of making a snap-shot in 1/25 of a second when the gauge says time—half a second?"

"We stop the motor, uncover the camera, my wife makes the negative and she says—home James!"

We don't guess, we both know we have a fully timed picture—and we are off again—Kodaking as we go!"

A Lens for Copying

I received a question recently as to the merits of an anastigmatic lens compared to a rectilinear for copy work. As some of our readers may be interested, I give the answer here.

If the question of price did not count buy the anastigmat. But as the lens needed has to cover an 8x10 plate, an anastigmat on account of cost may be dispensed with by using a rectilinear. The real advantage of an anastigmat is, its large aperture—which means speed—and its fine definition over a flat field at a comparatively wide angle. In copying, as speed is not essential, we can secure the other qualities by stopping down the rectilinear. In other words the rectilinear will prove quite satisfactory if stopped down to F-32, which is the stop most often used for copy work.

A New Way of Using the Verito

Below is an extract from "Lensology and Shutterisms," a little bi-monthly magazine published in the interest of Wollensak dealers. As many are using the Verito lens, both amateurs and professionals, I have inserted this hint hoping it may be useful.

Here's a new method of using the lens—a method recently discovered that gives a delightful and yet distinctly different quality. Tell your Verito customer to try making negatives with his Verito lens combinations reversed,—to screw the front combination in the rear barrel, and the rear elements in the front. He will find the image sharper, yet beautifully atmospheric, with a minimum of halation.

This is something well worth knowing. For if your customer is not perfectly satisfied with the Verito used in the regular way, all he has to do is to reverse the elements, and he has a different lens entirely. Or if he uses the rear element alone, still another quality is available. Can you beat it?

Here's the Verito in brief:—Three qualities in one! Long focus rear combination! Better prices for pictures! Retouching expense slashed! High Speed! Practically free from flare! Ideal for enlarging too!

THE AMATEUR AND HIS TROUBLES

The "Tea-Tray" Picture

This is nothing more than a model picture grouped on a table top and frequently on a tray for convenience.

The picture itself is built up in the fashion of a movie set on a diminutive scale, using cardboard and paint for the houses, sand and earth for the street and fragments of green stuff for trees. Animals may sometimes be supplied by children's toys, and little figures are modeled from plasticine or putty, and these may be draped to add realism; but such figures should be reserved for the middle distance.

A soft focus lens can be used to great advantage on this kind of work, and some might find artificial light, on account of easy control preferable to daylight.

If one could give the time and study, some striking results might be expected from these methods.

Waterproofing Trays

Wooden trays may be made perfectly water-tight by applying three coats of the following:

Asphalt	3 oz.
Pure India rubber	30 gr.
Mineral naphtha	5 oz.

Allow the trays to dry thoroughly between the application of the second and third coats. Care should be taken to keep this solution away from a flame; the safest way is to use it out of doors.—American Photography.

A Copying Hint

It is sometimes difficult to get sufficient "snap" into our copy negatives, especially so, if our original picture is drawn or printed on a tinted ground. Some workers also have trouble in getting satisfactory results when doing any kind of copying, they fail to get the "quality." Under such conditions if we are able to develop a clean plate, that is, one free from fog we may have recourse to intensification. For this purpose, I have used the Victor intensifier with most satisfactory results.

I always pass the negative through a weak solution of the red prussiate and hypo reducer first, then wash, next intensify, wash and dry.

Labels

Gummed labels may be purchased at the stationery store for a small price, get them of sufficient size on which the formula may be written, this will prove a real convenience at times. Labels can be greatly improved by a coat of varnish, they will last longer. Write in ink; affix the label and when dry apply the varnish. A good varnish may be made by dissolving strips of old film, from which the gelatine has been removed by soaking in hot water. Dry the celluloid strips, place in a small bottle and cover with amyl acetate, add either more celluloid or more solvent, as the case may require, to give a liquid of syrup-like consistency. Give two applications of this varnish, the second coat to be used when the first is dry.

Flash Bags

The following formula is the one used for fireproofing flash bags by one of San Francisco's commercial photographers and he recommends it:

Ammonium sulphate	8	parts
Pure ammonium carbonate	2½	"
Boracic acid	3	"
Gelatine	2/5	"
Water	100	"

The fluid is heated to 85 degrees F. and the tissues (Nainsook) immersed in it until thoroughly permeated. They are then slightly wrung and dried sufficiently for ironing. The quantity of gelatine may be changed according as the tissues are to be more or less stiff.

Waterproof Album Covers

A camera has come to be regarded as an essential part of a camping layout. Snapshots of the party with their trophies of the hunt, their catches of fish, and showing little details of the camp life are prized for years afterwards.

Many a valued collection of photographs has been ruined by rain in camp. A camp album should have a waterproof cover. Bookbinders, blank book manufacturers, etc., are now using a pyroxlin coated fabric for book covers that is as watertight as a rubber boot. A photograph album bound in this material will protect camp photos from rain.



OUR BOOK SHELVES

The Book of the Dance By Arnold Genthe

Isolated attempts to deal with the dance have been frequently made by pictorial photographers during the past decade. Commencing with Demachy's delightful studies, we have had not a few wonderful examples of the ability of the lens to deal with the poetry of motion. Now we have a collection of pictures, all the product of light and silver, guided by the skill of one of our best known workers, showing the dance as interpreted by the most noted of its exponents. The book consists of sixty-six photographs, five of which are three color reproductions and two autochromes and a delightful introduction by the well known writer, Shae-mas O. Sheel. In this preface the whole spirit of what should be the underlying ideal of the dance is expressed in language that is perhaps only possible to the genius of the Celtic spirit. Thus he says, "Once we were young, and the leaping blades of our desire striking the granite facts of life lit lively fires of wonder. We were simple, so that when the moving beauty of nature and the joy of each other's company stirred us to ecstasies, we sought free and natural expression; we danced—we danced as the movements of waves and branches, and as the exquisite beauties of our own bodies suggested. Such memories she evokes by her subtle gestures and movements, which are as the dancing of a leaf over the ground, as the drifting of mist over the still surface of a lake at dawn. The morning of time dawns upon our spirits again, and once more we have a sense that hears the gods.

Watching her we see the soul of man moving in the dance of destiny; dreaming, hoping, aspiring, questioning; thrilling with desire and joy and melancholy, crushed, purged and raised again; the spirit of man

enduring its trials and triumphing in the great adventure. This is the interpretation of life by the intuitive wisdom of genius, which is feeling confirmed by thought, and which understands that the ultimate of human apprehension is a mysticism impossible of interpretation, save in symbolic art."

In applying this criteria of the writer to the work of the photographer we must ask how far has Arnold Genthe been able to transfer to paper the beauties his eye perceived. In seeking an answer it is difficult not to be influenced by the great work of the Greeks, who on walls and porcelain left us those wonderful designs whose recovery from the dust has led to the recreation of the classic dance. Such a comparison is out of place—the genius of line and mass are different and the very elements that make some of these photographs alike, would be impossible in decoration, while equally (and, it must be said to the detriment of many of Genthe pictures) the use of the lens to reproduce purely static phases, or definite poses a la Del Sarte are not successful in comparison with the work of non photographic artists.

This is not the place to make a critical review of the individual pictures, but many words of praise and some of blame are called for. It is a well known fact that in the field of music the greatest artists frequently fail to yield the best phonographic records. Something of the same kind appears to be true of great dancers and many of the finest picture of the collections are records of the lesser lights. Take Isadore Duncan, the two studies, (37 and 39) offer little basis for the glowing words of the writer. The one study of Maud Allan (49) is a simple and beautiful portrait but no suggestion of the dance. Anna Pavlova would never have become famous from a study of these

OUR BOOKS AND SHELVES

photographs, two of which (177 and 179) approach the grotesque. The group is redeemed by the wonderful poised figure (171), a triumph of line and chiaroscuro. It is a pleasure to turn to the pictures of Ruth St. Denis and her school (54, 55, 57) and the posed figure (65) with its striking composition. What is looked for in a book of this kind is the presentation of movement and it is to be found here. The nude (157, 159, 161) is dancing in every limb. The joy of the dance is in her face. It is movement not pose. Much the same can be said for 195 to 219.

Figures in motion leave little to the ability of the photographer outside of a quick eye to catch a momentary effect. Very largely Dr. Genthe has succeeded in this, but his real skill is shown in the dealing with poses. The study of Irene Marellus (167) is a thing of beauty and if the book contained nothing but O Sheel's introduction and this picture, its purchase would be justified. Taken as a whole Dr. Genthe may be congratulated on opening up a new field in a very delightful manner. We believe future editions will eliminate not a few unnecessary plates, but they will be replaced by greater work. The finish is all that could be desired, splendid paper and excellent half tone.

The Book of the Danee, by Arnold Genthe, price \$7.50, to be procured from American Photography, 1145 Camera House, Boston, 17, Mass.—H. D'A. P.

The Silver Bromide Grain of Photographic Emulsions

This, the latest publication we have received from Eastman Kodak Company, is No. 1 of a series of monographs on the theology of photography from their research laboratory.

This book deals entirely with theory, and is in no sense a popular or simple account of its subject.

The research laboratory of the Eastman Kodak Company was founded in 1913 to carry out research work on photography and on the process of photographic manufacture.

The scientific results obtained in the laboratory are published in various scientific and technical journals, but the work on the theory is of so general a nature and occupies so large a part of the field that it has been thought wise to prepare a series of monographs, of which this volume is the first. In the course of the series it is hoped to cover the entire field of scientific photography, and thus to make available to the general public material which at the present time is distributed throughout a wide range of journals. Each monograph is intended to be complete in itself and to cover not only the work done in the laboratory, but also that available in the literature of the subject. A very large portion of the material in these monographs, however, will naturally be original work which has not previously been published. The monographs are written by those specialists in the laboratory who are best qualified for the task, each monograph being edited by the director of the laboratory.

The retail price of Monograph Number I is \$2.50 per copy.

The Page Company's 1921 List Is Out

The Page Company's Announcement List of New Books scheduled for publication this year is out, and among the good things included we note a sequel to "Smiles," by Eliot H. Robinson; "Utah, the Land of Blossoming Valleys," a new volume in the "See America First" Series, by George Wharton James; "Famous Leaders of Industry," Second Series, by Edwin Wildman and a new novel, the title of which is to be announced later, by Mrs. Larz Anderson.



INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

Post Card Album Division

Post Card Album No. 5 commenced its route about the first of April. It is sent to those members first of all, who have contributed to its contents; then it will continue its route, traveling to such as have no photos therein, and who are on the list of recipients.

Some of our members have previously sent postcards for several or more albums in advance. It would be well for all to do likewise, thus rendering it needless to write in person, asking prospective participants, then our albums will be issued at regular periods semi-annually, in same manner as we receive "Camera Craft," monthly. These albums are greatly educating and entertaining. No. 6 Album is in progress to be routed October 1st. (Those that prefer to have their photos returned after albums have ended their route, please include stamps for return postage.)

Fraternally yours, in the Photo craft,
JOHN BIESEMAN,
 Postcard Album Director.

NEW MEMBERS

- 4927—J. A. Cornish, 30 McAlpine St., Toronto, Ont., Canada.
 5x7 and smaller. Figure studies and bathing girls and views of interest. Would like to hear from foreign members, especially China, Japan and Hawaii. Class 1.
- 4928—Haw Kirkpatrick, Box 69, Tallulah, La.
 5x7 and smaller, D. O. P., Bromide. Landscapes, general range of subjects; for anything of interest. I desire to exchange prints only. Class 1.
- 4929—E. Ugalde, 2603 Hopkins St., Houston, Texas.
 3¼x4¼ developing, of Spain, Italy, Switzerland, Cuba, etc., photos taken during sight-seeing trip; for landscapes, portraits, studies, or anything of interest. Class 1.
- 4930—Cuy W. Butter, Milltown, Maine.
 Post cards, developing of various subjects; for anything of general interest. Class 1.

CHANGE OF ADDRESS

- 3281—B. W. Hemley, 10211 So. Hoyne Ave., Wash. Heights Sta., Chicago, Ill.
 (Was 429 Melrose St., Chicago, Ill.)
- 4162—Samuel T. Dent, 254 W. Apsley St., Philadelphia, Pa.
 (Was 2728 N. 5th St., Philadelphia, Pa.)
- 4433—John Y. Owsley, Los Molinos, Cal.
 (Was 28 Shrader St., San Francisco, Cal.)
- 4690—F. M. Craft, 1202 S. State St., Belvidere, Ill.
 (Was 1423 Calumet Ave., Chicago, Ill.)

- 4904—A. V. Stubenrauch, 3120 Lewiston Ave., Berkeley, Cal.
 (Was Room 15 Wright Bldg., Berkeley, Cal.)

RENEWALS

- 2479—Mrs. L. E. Cundelach, P. O. Box 94.
 Class 2.
- 2835—Frank M. Remster, 69 Myrtle Street, Bridge-ton, N. J.
 Class 2.
- 3541—B. F. Smith, Tygh Valley, Oregon.
- 4174—Aug. Caarz, 608 Mansfield Road, Cleburne, Texas.
 5x7 or smaller, of figure studies in nude or semi-nude; for the same. Class 1.
- 4324—Lizzie C. Knauf, Adams Co., Seaman, Ohio.
- 4233—Harold Sherer, R. F. D. 2, East Canton, Ohio.
 Class 3.
- 4363—Jonathan T. Welsh, 50 Fort Creene Place, Brooklyn, N. Y.
 Class 3.
- 4452—Wallace B. McBlain, Box 172, Fort Monroe, Va.
 2¼x3¼ interesting scenes, historical events, scenes of Japan, the Philippines and Hawaii and general subjects. Class 1.
- 4456—Harry J. Fromm, 170½ Catherine St., Elizabeth, N. J.
 4x5 and 3¼x5½ and smaller, of buildings, landscapes, marines, child studies, home portraiture, beach scenes and general views, for the same. All correspondence answered. Class 1.
- 4475—Branson De Cou, 213 William St., East Orange, N. J.
 Interested in exchanging or purchasing slides of unusual beauty, Western scenic subjects. Class 1.
- 4570—T. H. Davidson, Coon Valley, Wis.
- 4576—P. S. Daniels, Hughson, Cal.
 Class 3.
- 4618—J. E. Dow, Big Sandy, Texas.
 Class 2.
- 4633—A. E. Hindle, 277 Willows Lane, Bolton Lanes, England.
 Class 3.
- 4660—Chas. D. Meservy, R. F. D., Whitman, Mass.
- 4688—Freeman S. Spears, Ashland, Ill.
 Class 2.
- 4740—Fred R. Seavey, Box 81, Milton, Penn.
 3¼x5½ Developing, of scenery and historical subjects; for the same or anything of general interest. Class 1.
- 4745—Carl W. Beese, R. F. D. 5, Fenwick, Ont., Canada.
 Class 2.
- 4751—C. H. Foster, Box 92, Kerrwod, Ont., Canada.
 4½x6½ and post cards. Class 1.
- 4757—Cunder Omland, McIntosh, Minn.
 Class 2.
- 4772—W. R. Kubley, Argos, Ind.
 Class 2.
- 4853—J. R. Meservy, 83 Main, Skowhegan, Maine.
 5x7 and post cards Artura and Azo, of wood scenes, waterfalls and general landscape studies; for 5x7 views and post cards of Western and Foreign scenes. Class 1.
- 4865—H. Cleve Burr, 2 Halls Avenue, Remuera, Auckland, New Zealand.
 (Formally of Rawira St., Kaiti, Cisburyne, New Zealand.)
- 4899—Anton Berest, Rout 1, Box 12, Irondale, Ala.
 3¼x5½ of views of outdoor, shop, machinery and genres; for anything of interest. Class 1.
 (Error in address in January issue—Trondale instead of Irondale.)

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

Reported by Wm. Wolff

Married life seems to agree with Wm. Horwarth of Melvin, Roberts & Horwarth, San Jose. He looks fine and Rosy.

Edw. O. Webb's San Jose's Exclusive Photo Shop is some busy place.

W. H. Shearer and wife are again located in Santa Cruz.

Mayor Kratzenstem of Santa Cruz took the writer about upon his last visit to the seashore city.

R. Kennett, formally of Tacoma, is located in Santa Cruz.

Charlie Adylotte of Santa Cruz is building a new studio next to his present location.

Ossian Hagman, Watsonville's leading photographer, is very busy in his new and up-to-date studio.

Leopold Hugo is showing some very fine Green prints in his ground floor studio in Santa Cruz.

Miss May Queen, who had charge of the Kodak finishing department of Hirsch & Kaye, left for New York on May 14th to be married. The Craft wishes her the best there is.

Louis Magnus of Hirsch & Kaye's is on a vacation.

Next reports will come from the East, as the writer leaves on May 23rd, to be gone about seven weeks.

Friend Lindsay

G. Archer Lindsay, representative of the Ansco Company, Binghamton, N. Y., called on us recently with a decided expression of satisfaction lighting his features. We have known Mr. Lindsay a long time and we judged he had good news to communicate, and it was, good news for every photographer.

We learned the Ansco people had secured the finest quality paper from France as a base for their photographic emulsions.

Ansco & Company, as well as other manufacturers of photographic papers had ex-

perienced great difficulty in securing suitable paper stock during the stressful times of the war. This firm now counts their troubles of supply over, as they have made very satisfactory arrangements to that end. The growing consumption of their Cyko paper had made heavy inroads upon their stock, and it is with a feeling of relief that Ansco can now meet the demand.

Mr. Lindsay is recognized as the walking cyclopedia of the photographic trade; he is well known in that connection from British Columbia to Southern California, and his face is very familiar in every Camera Club scattered between where he is always welcome, and for a very good reason.

In matters of formula the amateur photographer is a bear, his appetite is simply insatiable, and Mr. Lindsay has the finest opportunity to keep his memory in perfect trim, to satisfy these ladies and gentlemen. The subject of formula has become such a habit with Mr. Lindsay that he is apt to give you one on the slightest provocation. When he was leaving our office, we chanced to remind him it was a long time since we first met and we added, "how do you keep so young looking?"

"I walk," he replied, "plenty of walking, and I eat very plain food; for breakfast, I take oatmeal, not a little dab of it, but a great big plate full, and I top it off with a good slice of ham and a few eggs—then I begin walking."

International Convention, Buffalo

To professional photographers: You cannot afford to miss the Buffalo Convention. Make your plans now; you are offered special railroad rates of full fare going and half fare return from all points of the country, east of California, Oregon, Washington and Nevada.

CAMERA CRAFT

This should be looked upon not only as a pleasure trip, but it is an investment as well. No man can see the works of others of his profession without gleaning some good therefrom. You will meet your "live" and "successful" brothers there; you will familiarize yourself with the very latest practice in your chosen field; and above all things, you will avoid the fatal rut that the recluse generally falls into.

Be stirring, visit the convention, and your work will gain by your effort. On another page there is more information for you.

The Thirty-First Annual Exhibition

The Brooklyn Institute of Arts and Sciences, department of photography, held a reception and private view of the thirty-first annual exhibition of prints by members of the department, at the Academy of Music Building, Brooklyn, N. Y., on Monday, May 9th, eight to ten o'clock in the evening. The exhibition was open to the public May 10th to May 14th, inclusive.

The Motion Picture

Many photographers have taken up motion picture work as a profession. They may be termed free-lances, not being associated with established organizations, though they sooner or later become connected with some source of distribution. The kind of work these photographers often specialize in is, the Scenic, Travel and Educational films.

For the most part these workers are too busy and lack the equipment, to do their own work of developing and printing, it is necessary for them to turn this part of the undertaking into other hands. This necessity has been met by specialists, and it has now become a recognized business, just the same as trade photographic finishing for the amateur photographer is a recognized business.

The Photo-Finishing Company, 3159 Indiana Avenue, Chicago, are established to do just this kind of work, they offer dependable service for the M. P. camera owner, and they wish us to state that they are in the market for good M. P. negatives.

Pictures by Eichheim

The Chicago Camera Club announces an exhibition of pictorial photographic studies of the Far East by Henry Eichheim of Boston, Mass. The catalogue we have received comprises twenty-six exhibits made up of pictures from China, Japan and Korea, the majority of which are from Japan. The catalogue itself is neatly got up and has an excellent appearance, its cover page is decorated with a half tone reproduction of a Japanese genre subject pasted on, it adds greatly to the pleasing effect.

The exhibition at The Club, 31 West Lake Street, Northwestern University Building, will continue from April 30th to May 8th, inclusive.

From the South

We have received a most attractive picture card from the Southern California Camera Club, which we understand is the work of their talented secretary, Frances Purdy. Our readers will doubtless remember Miss Purdy's contribution to Camera Craft in our last issue, entitled *Entre Nous*, and many of them will recognize a great deal of truth told in amusing rhyme of pictures caught "off the bat;" of course this is between ourselves; the cold world must not know that many a fine picture was secured by that means.

Direct Finders

Just whisper! What is your candid opinion of the pretty little view-finder supplied with your hand camera?

Did you experience when in a hurry, how difficult it was to locate the object in that dear little finder? You lost time in wiggling for position, perhaps.

What is a hand camera for but to snatch up a picture in an unconscious moment?

"Cheero"—there is a sure cure for this fussing—it is near to you!

At the back of the frontispiece to this magazine, you will find it in Hirsch & Kaye's ad. Notice the price—this finder will do the work.

You eyes being in your head not down at your belt, you can follow a moving object in comfort without stooping—and you never lose sight of your picture.

NOTES AND COMMENT

"Agfa"

The word "Agfa" in the photographic world stands for something. The "Agfa" people have for years been prominently identified with photographic goods, and now they bring to your notice the "Agfa" Film Pack.

Are you satisfied with the film pack you have been using? Better ask your dealer to show you this latest film pack and you be the judge. Sagamore Chemical Co., Inc., 120 West 31st St., N. Y., Sole American Distributors "Agfa" Products.

The Emporium Photo-Contest

Amateur photographers are invited to participate in the photo contest to be held at the Emporium, San Francisco, in July next.

There are no classifications and the subjects are unrestricted. There will be four prizes:

1st Prize	\$50.00
2nd Prize	40.00
3rd Prize	30.00
4th Prize	Membership in the California Camera Club

The prize awards will be made by a committee appointed by the California Camera Club.

Any amateur photographer who wishes to contribute pictures and compete, may do so with every confidence of a square deal, merit will win. The rules of the contest will be supplied on application. Remember, contest closes July 25, 1921, that means your pictures must be delivered at the Emporium by that date.

Quick Returns

There is a coin card advertised in this issue by John N. Spies, Watertown, N. Y., that is performing a genuine service for Photo Finishers and Supply Houses, in making collections for small items and in many ways rendering a service indispensable to a firm doing a mail order business. These cards hold \$1.70 in change and are a great convenience much appreciated by customers in remitting for services or supplies. With an advertisement printed on the flap of card, they make the strongest, silent salesman one could employ and will open up many avenues for new business.

The first thousand The Art Studio, of

Tyler, Texas, purchased brought them in \$750.00, so Mr. Bradley, the manager, says, "you see why we are ordering more." Samples will be sent free.

Kodakery for April

If you are a novice in photography you ought to get a copy of "Kodakery," your photographic supply house will most likely have it on the counter. This April number is like the previous copies, full of interesting information, such as you ought to know, and there are a wealth of pictures made with small cameras, they are so good, that you will be tempted to ask yourself, "what is the need of a large camera, anyway?"

The first article in this booklet is a very interesting one, it describes what a fellow did with his Kodak Self Timer. His folks were not satisfied with the usual postcard views he had been sending, they wanted something different, they wished pictures of a more personal character, just what was being done on that outing; and later the home folk received pictures of "him," taken by "him," and they decided that these pictures were far and away more interesting than postcards, of the new city hall, the court house, or the county jail, even if it had "the comforts of home."

A helpful article entitled, "The Exposures to Give for Outdoor Subjects," is well illustrated with the different types of pictures and their method of treatment. We learn what shutter speed and what stop to use, of course this all helps wonderfully, for it is not difficult to get our picture if the negative was correctly timed.

"The Graflex in Nature's Studio," enables us to see the wild birds in their haunts. The mourning dove on nest is a photograph that will appeal to many and the picture of the saucy catbird will not be overlooked. The photograph of the rose-breasted grosbeak is so very good it is doubtful if it could be improved upon.

"Jimmie's Birthday Present," is a little story worth reading. Jimmie Hatch had received as a birthday present a Brownie camera and his first long-pants-suit. Jimmie felt like somebody, indeed he was somebody—but you must read about him.

In "Backgrounds for Small Objects," we learn about flower studies and how to

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handle a background to show our finished picture to good advantage. It is all made very plain, and we feel sure a novice can not go through this booklet carefully, without learning something that will be most helpful.

Wanted, Variety

What is your experience when showing visiting friends photographic albums?

The black pages of the book are very effective as backgrounds for your photographs, there is to our mind nothing better, there is nothing to detract from the brilliance of your prints but have you noticed the effect of black and more black as each page greets the eye; it casts a spell on your friends, that spell is hypnotic, it is yawn-provoking.

Let us repeat, have you noticed if there should be a sepia print of yours in that black book how your friends will wake up, and perhaps praise that print even more than others of greater merit?

Why is this? It is nothing more than the relief one naturally feels at a change. Notice this fact next time, then ask yourself if it would not be an excellent thing to introduce more colors into your pictorial collection. Not only sepia prints, but blue and green tones and all secured on the same developing paper. Think how much more attractive your album would be with pictures in this variety of colors, and the best of it is, the black pages will show them all up beautifully.

Have you tried Burroughs, Wellcome & Co.'s Tabloid Toners, the directions are simple, they are easy to use and you will have the variety in your albums which the eye asks for.

Marsh & Co., 712 Market St., San Francisco, are jobbers in all Burroughs Wellcome & Co.'s products.

A Live Club

The California Camera Club has started its thirty-second year with the election of the following officers: Edward H. Kemp, president; Dr. Edward G. Eisen, first vice-president; Vernon M. Taylor, second vice-president; Wm. C. Mackintosh, secretary; E. Martin Webb, corresponding secretary; L. J. Tyler, treasurer; J. R. Wilding, librarian; and F. T. Finch, Daniel Buckley, F. J. Kump, and John C. Eriksen, directors.

The one event which is attracting most attention at the club at the present time is the Yosemite Excursion, to be held from June 18th to 25th, inclusive at Yosemite Lodge under the personal leadership of Edward Ross Shirley. This will constitute the Camera Club's twentieth annual Yosemite tour, and the party will be limited to three hundred.

Photographs for Advertising

W. R. Humphries, Smiles Service, Lissner Building, Los Angeles, Cal., is in the market for photographs that will help a Thrift campaign.

Farm View Outfit Complete

Opportunity of life time for aggressive man, enter business for himself. Where profits are ten times greater than stuffy studio. Large enlargements. Farm and Ranches colored Water Colors sell \$25.00 to \$75.00, Oils \$50.00 to \$200. Production one fifth selling cost. Frame Sales pay all expenses. I paid for 120 acre Indiana Farm and 40 room Denver Hotel from profits in four years. Friend now working in California made \$30,000.00 last year.

Owing fact I recently purchased extensive business enterprise offer for sale, delivery June 15th. My latest complete outfit, everything which is positively brand new and in excellent condition. Including Eastman 5X7 Revolving Back Cycle Graphic Camera with Special Eastman Revolving Back Focal Plane Shutter Attachment; Extra Direct finder; 8 1/2 inch 6.8 Turner-Reich Convertible Lenses mounted Ilex Acme Shutter, lenses 8 1/2 X14, 20 inch combinations; Leather Case; Large Strong Tripod; One dozen 5X7 Portrait Film Holders; One doz. 5x7 Portrait Film Hangers; Film Sheath. Cost \$282.70. One Sample Case 22x32x6; four 20x30 Samples in Genuine Oils each in 1/4 inch frame under glass. Finished by noted Artist, sold over \$20,000.00 work, they include full figure Shorthorn Bull, three farm scenes, Cost \$1100.00. Case cost \$75.00. All in excellent condition. One sample case 24x34x4, two 20x30 samples in Water Colors under glass, finished by America's foremost Water Color Artist. Cost \$60.00. Case cost \$25.00. All fine condition. Case fits automobile running board. Smaller case easily carried. Will furnish buyer sales plans, names of artists, photographers, finishing work, canvas and paper. All information necessary to conduct business. Have \$1542.70 invested in above. Will sell for \$480.00. Over 2-3 less than cost. Terms: Deposit of \$200.00 down, balance C.O.D., with privilege examination, responsible party.

Artists names, confidential information, etc given only when outfit accepted. Triflers would be money makers, information seekers, save your time. No photos of samples, case, sent out. This camera is finest Eastman makes. Will do wide range subjects. Samples finest money could buy. Any advanced amateur with Harvey No.2 meter can make good and pay for outfit first month. With professional its "pickings". Price given for immediate sale. Money urgently needed finance building contract. If not sold by July 10th price will go to \$1000.00. Nothing sold separately. Bank References furnished.

P. O. BOX 1488 DENVER, COLORADO

CAMERA CRAFT



SAN FRANCISCO
CALIFORNIA

DATE OF ISSUE AND TIME OF PUBLICATION

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A Photographic Monthly

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Expirations—Subscriptions to Camera Craft are discontinued on date of expiration. The date on the address label on the wrapper shows the time to which each subscriber has paid. Thus: Jan. 21, means that the subscription expires with the number dated January, 1921. ¶Renewing—In renewing a subscription, do not fail to say that it is a renewal, giving name and address just as now on the address label. ¶New Address—In notifying us of a change of address, give both the old and new address. Should you miss a copy through change of address, advise us of the fact, and another will be gladly sent. ¶Dealers—All photographic supply dealers and news dealers are authorized to receipt for subscriptions in our name.

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 San Francisco, California.

FOREIGN AGENTS:

Australia	Harringtons, Ltd., Sydney
England	Kodak Australasia, Ltd., Sydney
Malta	Francis Collas, 3 Wine Office Court, Fleet Street, London, E. C.
	Do Agius Catania, 41, Sda. Reale, Valletta
New Zealand	Richard Hill, Matlock House, Devonport, Auckland
	Waterworths Limited, 58 Queen St., Auckland
	Waterworths Limited, 286 Lambton Quay, Wellington
Philippine Islands	F. O. Roberts, Manila
Japan	K. Kimbel, Yokohama
China	Squires, Bingham & Co., Shanghai

New Things Photographic

for the Professional Photographer

THE BUTLER SUPER-POWER LAMP—for correct Studio Lighting—Produces from 1,000 to 37,000 candlepower. Simple to operate—easily installed—a valuable asset to the Studio. Price \$150.00.

Let us send you booklet giving full information, no charge. (The BUTLER SUPER-POWER LAMP is carried in stock by us).

THE WELSH RAPID PHOTO PRINTING MACHINE cuts labor costs, increases output, used by the largest Photo finishing plants in the world. Price \$135.00.

Description free on request.

(The WELSH RAPID PHOTO PRINTING MACHINE is carried in stock by us).

THE ACME PHOTOGRAPHIC SPOTLIGHT, a wonderfully powerful Spotlight of the projector type and is equipped for 500 watt condensed filament Mazda lamp. It is without doubt the best buy in Spotlights on the market. Price, \$30.00.

Circular sent free.

(We can make immediate delivery of ACME PHOTOGRAPHIC SPOTLIGHTS).

HENRY G. DE ROOS, INC.

88 THIRD STREET

SAN FRANCISCO

CALIFORNIA

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"THE TWISTED OAK THAT GUARDS A HILL"
By W. ZENIS NEWTON



CAMERA



CRAFT



A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief

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Associate Editor

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Speed Photography

By Frank Reeves



With Illustrations by the Author

When the desire to own a camera and make pictures first began to assert itself I did not stop to figure out any particular branch of photography—I just knew that it looked interesting, the camera people said it was easy, and that it must be very nice to be able to make just any picture that you wanted. The desire continued to grow; I wrote for more catalogues and studied them carefully—I was then living in the country well away from any town that carried anything photographic, so by necessity I was forced to select my outfit unaided from catalogues. The cost and inconvenience of transportation, for it was before the days of parcel post, made me go slow in my purchases, and I really came out pretty well on my selection.

The camera arrived and I was ready to satisfy my desire—to make pictures of everything. The farm buildings, the stock, and even the family, either willingly or unwillingly, were “shot.” If a few friends dropped in I soon appeared with my camera, and at their next call they were either delighted or surprised to see themselves as others see them as depicted by my photographic skill, unless I had been so thoughtless as to fail to withdraw the plate holder slide, or some little simple something like that which has a tendency to lower one’s percentage of “hits.” Failure to withdraw the slide naturally resulted in my trying to develop an unexposed plate, but the law of average is a great factor in everything, and to compensate for this I often found that I had two exposures on one plate.

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Finally I became convinced that I couldn't photograph everything, and that it was more or less of an expensive undertaking.

This I think is the most critical time in an amateur photographer's career—he either gives it up entirely with perhaps an occasional exposure turned over to some one else to finish, or he begins to really try to make some pictures, perhaps selecting a certain class of subjects that appeal to him. I soon found myself working on different subjects as the mood struck me, and while I continue to cover a pretty wide field in my attempt throughout the year, yet I find my greatest pleasure in a few special subjects or classes—one of which is action pictures that tell a story.



PLAY TIME

Shortly after my camera came I decided I wanted to make some speed pictures. In view of the fact that the box in which the plates were packed had plainly marked on it, "Extra Fast," I thought I was at least pretty well equipped for the work. I find that to a beginner, and to a lot who have been making pictures quite awhile, that it is difficult for them to realize that their shutter that opens and closes so quickly that they can only see it flicker will not stop con-

siderable action. I made several efforts, but failed to get the desired results, and was finally convinced that I needed a different camera. I wrote for more catalogues and learned that I should have a Graflex. But when I read the price of the outfit it actually put my speed photographic germ in a dormant state. This happened several photographic seasons until finally it refused to sleep any longer and I found myself in possession of a Graflex. Now for the speed pictures, I would show the world a real set of action pictures. You know "Lady Luck" seems to judge just when to come around to keep you everlastingly playing the game. If she hadn't flirted with me at the start—that is, after I learned enough to know you

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BRANDING TIME, SCENES ON THE S. M. S. RANCH

can't make speed pictures with just any kind of an outfit and got the Graflex, the chances are I would have been easily discouraged, and soon let up. "Lady Luck" was in an indulgent mood when I first started out with my Graflex. The first exposure was of a bucking broncho and it was very good. My plans ran high, but it took several hundred exposures before I got a better one.

I soon found that I could stop the action alright, but the results were not at all pleasing in a good per cent of the cases. I have found this to be so in all speed pictures, and to a very pronounced degree in pictures of bucking horses. As a matter of fact, I have made some pictures of the latter subject that seemed almost unthinkable they should actually depict some part of the actual performance. The mind carries the position of the horse at the beginning of the jump, his maximum height, and the landing—a complete jump. The camera shows him in one position only, and a foot in an awkward position, or something else equally small will throw the whole picture out of balance and make it look unreal. So after convincing

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myself that with proper light conditions the Graflex would stop the action, it was up to me to make the exposure at the proper time, and therein is the secret of success in speed pictures.

Speed pictures, as a rule, are made under trying conditions. Often the light makes it impossible to work from the most advantageous view point. Or if a number of people are about they want to crowd about you, and seem to have no compunction about bumping against you, or stepping in front of the camera just as you make the exposure. The subject is often of a character that necessitates your moving quite a bit, either to keep it on the plate or to get out of the way, and often it is a great temptation to disregard the "Safety First" slogan and stay just a second longer. If you want to be busy—so busy you haven't time to think of anything else, just attempt to photograph a real lively subject that has no respect for your choice of location or the proper lighting, and if you succeed in keeping it on the plate properly focused I don't believe you will have time to speculate much as to when photo supplies are going back to the old prices. Pictures of divers, or any subject that you know will take a certain course, gives you a better chance, but even then you have no easy job. It is quite an aid to know about what angle the subject will move across the view in addition to the probable distance. They are both valuable in making an estimate as to the proper exposure to stop motion. I never try to see just how short an exposure I can make, but rather just how long an exposure I can make and at the same time stop action—at least objectionable action. That enables me to stop the lens down. In fact, in my work on a great many subjects I often take a chance on having a foot or something of the kind show the slightest movement, and have a wider field in focus than to work with the lens wide open and have microscopic sharpness of the main subject. I have often been surprised how long an exposure can be given just at the right time and still not show objectionable motion, even when the picture has been enlarged. Of course, the subject itself and the surroundings will be the real determining factor as to whether depth of focus is preferable to microscopic sharpness of the subject.

You will note that I mention above that the angle the subject will probably move across the field and the distance the subject is from the camera will affect the speed necessary to stop motion. Perhaps all of you know this, but it is possible that some of you have never figured out just the effect it will have. If an object moving across the plate at a given speed requires $1/300$ of a second to stop all motion; this same object at the same rate of speed, but coming at an angle of 45 degrees, will require only $1/200$ of a second to stop motion, or if it is coming directly toward the camera, or going away from it, an exposure of only $1/100$ will stop motion.

The distance from the camera affects it this way: If an object moving at a certain speed 25 feet from the camera requires an exposure of $1/400$ of a second to stop motion, then at 50 feet an exposure of approximately $1/200$ of a second will stop the same motion, or at 100 feet approximately

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WITH A GRAFLEX ON THE S. M. S. RANCH

1/100 of a second to stop the motion. Whether you are interested in speed photography at all or not, the above often comes in handy in a number of views.

Now, a word as to material used. There is no question in my mind but what plates are superior to films for speed work—in fact, I prefer plates even where the action would permit the use of films, but that does not mean that you have to use plates to get good results. You may be able to get better results from films than from plates. There are any number of good plates made, but my advice to anyone is to adapt one plate for certain work and then stick to it and thoroughly master it. Not long ago I was talking to a photographer who has a wonderful collection of speed pictures and he assured me that I ought to use a particular plate. Not long after that I was talking to another photographer who has made speed pictures all over the U. S. and he declared that particular plate a failure, and recommended another. My work has been done almost exclusively with Seed's 30 or Standard Polychrome. At the moment I don't think I could express a preference between the two. In the developer I handle them alike.

If you have never used a tank give it a good honest trial and be convinced. With a known error in exposure before you start development you may be able to get better results with tray development, but how many of these kind of exposures do you have during the year. I believe if you put the plate into the developer and let that determine your error in exposure, then the chances are, it has gone too far to be corrected in most cases—at least with the average photographer, and that better and more uniform results will be obtained from the tank.

CAMERA CRAFT

In photography there are very few hard and fast rules. Of course, there are a few you can't transgress and hope to succeed, but just because some one tells you that a certain thing can't be done is not absolute proof that it can't. It may be that he will know more about photography than you will ever know, but I have found that it pays to take a chance some times. A few of my best pictures are chance pictures. This reminds me of a few little lines I read not long ago that ran something like this:

Some one said that it couldn't be done,
But he with a chuckle replied;
That maybe it couldn't, but he would be one,
That wouldn't say so till he had tried.

If these few random remarks prove interesting or helpful to anyone I am thankful for my effort; if not, don't blame me for it, but blame Camera Craft for having published it.



SPRINGTIME

CONTROLLING THE NEGATIVE

Negatives, and that includes most negatives made by snapshots, often have the shadows underexposed. A simple way to control this defect is to apply some transparent orange or other nonactinic color to these over thin parts with a small brush; the color should be diluted with water to the proper strength, as occasion demands.

Another way, more suitable for the novice perhaps, is to bind the film along one edge to the smooth side of a piece of ground glass and with a lead pencil add a protecting coat of lead over the offending shadow portions of our negative. This may be overdone, of course, but then we can remove the lead with a damp rag or we may lighten it with a soft rubber.

If we make a proof on some proving paper—say Solio, we can easily determine the result and act accordingly. The same piece of glass will serve for other pictures.



Desensitising Plates and Films

By Albert Johannsen, Ph. D.



Professor of Petrology, University of Chicago

No longer need we be "Knights of the Red Lights," and strain our eyes in the dim light of the dark room. Thanks to Lüppo-Cramer we can develop our plates—ordinary, orthochromatic, or even panchromatic—in the bright yellow light that we use for developing paper. While the phenosafranine process was discovered several years ago by Dr. Lüppo-Cramer, it is only beginning to be spoken of, here and there, in this country, although in Germany it is a vital subject for discussion in most of the numerous Camera Clubs, due to the recent appearance of Dr. Lüppo-Cramer's book.

One of the merits of this process is its simplicity, whereby it differs from the foggy potassium-iodide method of unfortunate memory. Since so many widely heralded experiments fail to come up to one's expectations, one is skeptical on reading the results obtained by others with newly discovered processes, but here even the first trial is an astonishing and unexpected success. It is true that the dark room is not entirely done away with, but any dark closet will serve for the preliminary bath, and final development may be done, it is said, at one and one-half to 2 meters from a sixteen c. p. incandescent light for ordinary plates, or the same distance from a candle for panchromatic. Having a dark room, I work in a bright yellow light, such as is safe for Velox, for there is no advantage in working in a dim white light when one can as easily use an abundance of yellow.

Dr. Lüppo-Cramer found that an exposed plate, placed in a bath of safranine, had its sensitiveness reduced from 200 to 300 times. Phenosafranine was found to be the best dye, although tolosafranine or diaethylsafranine may be used. Recently an English firm placed an aqueous solution on the market, three ounces for two shillings. It has been stated that the pure dye is not an article of commerce, but I have found that it may be obtained from any biological supply house, phenosafranine (pure safranine) being used as a stain for bacilli. The dye may be added to the developer and the plates developed for one minute in the dark before the light is turned on, or it may be used as a separate bath. The writer prefers the latter method, since the plate may then be placed in any ordinary developer and the moment of first appearance of the image accurately determined.

The process is as follows: Dissolve one gram of pheno safranine in 2000 cc. of water. Personally I dissolve one gram in 100 cc. of water for a stock solution, and of this take 10 cc. to 190 cc. of water. The dilute solu-

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tion is a bluish red and apparently keeps indefinitely. It may be used over and over again, and since the present price of 10 gm. of phenosafranine is only 75 cents (as against 38 cents in 1914), and this will make 20,000 cc. or over 21 quarts of dye solution, one need not hesitate about using it from the standpoint of expense.

Place the exposed plate in this solution in the dark or by ordinary ruby light. After the coloring matter has penetrated the film, which will require about a minute, the yellow light is turned on and the plate placed in the developer. The negative may be held in front of the light and examined by transmitted light, if desired, without producing fog, although if one uses the factorial system, for which the bright light is a great help, this is unnecessary. I have not yet tried how far I can safely misuse the process, but a film, see-sawed for twenty minutes through developer which was old, two feet from the bright yellow light, showed no trace of fog, and a lantern slide developed five feet below a 150 watt open light, was perfectly clear. Just because the plate is practically insensitive to light, one need not try to see if it is possible to produce fog. Longer immersion in the dye does no harm, but it is unnecessary for ordinary plates.

After development, the plate is rinsed and placed in an acid hypo bath in the usual manner. Phenosafranine stains the plate a light red, but this color usually disappears after thorough fixing in acid hypo and thorough washing. From certain doubly coated plates the color does not readily disappear. In such cases it is only necessary to place the plate, after fixing and washing for perhaps 20 minutes, in one or two changes of a few minutes each of water 100 parts, alum 2 parts, and concentrated hydrochloric acid 5 parts. Wash again for 15 minutes and dry. A clearing bath, more rapid than the above consists of:

Water	100 cc.
Sodium nitrate	0.5 gm.
Hydrochloric acid	5 cc.

Immerse until the color changes to blue, then wash.

Usually, however, the clearing bath is unnecessary. For panchromatic plates it may be necessary to leave the plates in the dye somewhat longer or to use a more concentrated solution.

Although phenosafranine is a red dye, it is not this color which protects the sensitive film from the light. Examined by the spectroscope, a plate dyed for one minute transmits all the spectrum except a small portion of the blue-green.

One peculiarity of phenosafranine is that it acts as an accelerator for hydrochinone, especially if a small amount of potassium bromide is added, and thus makes this one of the rapid instead of one of the slow developers.

Finally, if one does not wish to be thought a chorus man (or girl) in mourning in Mecca, he should use a rubber finger tip or a plate lifter.

Fascination of Locomotive Photography

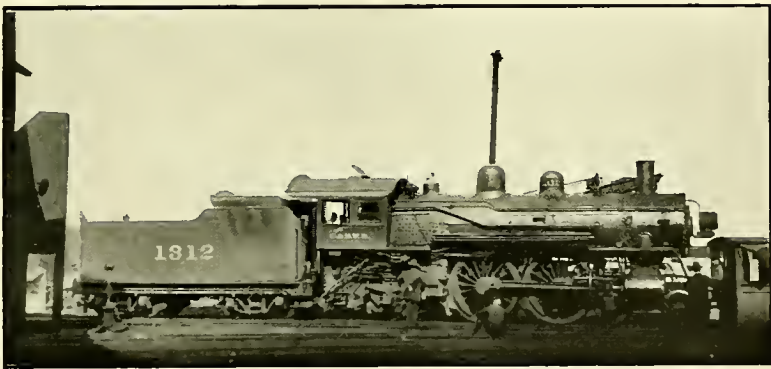
By R. W. Carlson



With Illustrations by the Author

To photographers, amateur photographers, who already have a start, or to those who are just making a beginning of photography, and are wondering where their hobby will lead them to, whether they should specialize or whether they should not, I would say specialize!

And if at all mechanically inclined, or interested in that nation-wide industry that covers our continent with its network of lines, not telegraph or telephone wires, but steel rails, then I would recommend to him that animate inanimate machine known as the locomotive, as the most fascinating specialization for our photographer to take up. With the locomotive naturally comes the train, be it passenger or freight, and the locomotive and train can be handled together, or with the locomotive separate. Let us discuss the locomotive.



EACH LOCOMOTIVE HAS ITS HISTORY

And now follows, how much work will it involve? That is, of course, as a whole, a question for the individual to settle. His subject is certainly not far away. And it is numerous, so numerous that there are some 70,000 in this U. S. A. And they are all different. But to most amateurs, one locomotive looks just about like every other locomotive on a particular road. This is where the fascination comes in. A few efforts in the direction of a photograph of a locomotive will soon begin to show results in bringing order out of an apparent chaos. He will find that when he has taken a photograph of a locomotive and takes a photograph of the next one, and the next one, that upon comparison the chances are they will all be entirely different.

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Now then, how different are they? And when he thinks he has found the difference, has he found all the differences? And if two of them happen to be exactly the same engine, even to the number, then the process of elimination commences, so as not to repeat. After a short while this elimination process will be almost a second nature. And if he has found two of them to be the same engine, even to the number it bears, then he



THEY ALL HAVE A DIFFERENCE

will have a first clue as to how this particular locomotive travels, what train it travels "on." Here then he can commence his train pictures if necessary, or desired. He will learn that a train is not always known by the locomotive that pulls it, or the locomotive by the train that it is "on."

And if two of his photographs are about alike except as to the locomotive number, are they exactly alike? Then there is again a process of elimination. And he will be surprised to find that when he has apparently found all the differences, he will have overlooked something worth while. The particular road's locomotive classification designation on the individual subject will help, but the amateur will soon be surprised to find that the classification is not absolute. In other words, two locomotives having the same class letter and figure painted on the cab-side, may have differences in their construction.—The photographer's education along this line can never be complete, so the amateur need not be afraid that in a short time he will have to quit because of lack of material.

And do not despise the lowly-looking, apparently ready-to-be-discarded locomotive. They also will show differences in construction. Furthermore, they probably have a history attached to them. And there are certain of them that are representatives of a type that is fast passing into history, probably never to be replaced, because they are no longer built.

And as the years go by, he may find that the locomotive he took a picture of some five or so years ago and which had apparently disappeared from his particular territory, has shown up again. And he may find that there is something different about it, some change made to it. Or he may see it just once, and then it is gone, apparently for good.

FASCINATION OF LOCOMOTIVE PHOTOGRAPHY

Most locomotive enthusiasts know how to take a good locomotive photograph, aside, now, from knowing how to use the camera. However, there are some who do not, and there are some amateurs who do not. With a still-subject photograph, detail of course is desired. The right hand side of the locomotive is the proper side to photograph, if it can be done just as handily. But if you must get a picture, the left hand side will do just as



A TYPE OF LOCOMOTIVE RAPIDLY DISAPPEARING. (Copyrighted)

well, because if you pass it up, the opportunity to take any kind of a picture of the particular subject may go forever. The only thing about the right hand side is that it will give you more appurtenances upon which to base your differences. With a still subject, a photograph taken broadside or a little to the front of center is the best, or it may be at a 45-degree angle toward the front. Experience will teach. And if the subject is moving, much depends on your camera, on its speed, and the speed of the subject, and the direction of movement. All amateurs will soon learn that it is very hard to stop any fast moving object across the field of vision. It is then up to him to find the best place under the circumstances, to get the proper angle and as much of the detail as he thinks he wants. We shall not go into further detail on this.

After some ten years of effort in amateur photography the author finds that his interest has not waned one iota, but that it is increasing because of what he has learned, and even with the full knowledge that the field can never be completely covered, not even in his own immediate territory.

CAMERA CRAFT

We could fill every page of this magazine with photographic examples showing technical differences in the subjects but the editor wouldn't "stand" for it. Suffice that three examples are given, with the necessary explanations. The fascination about the three of them is given with the explanation.

In closing, just let us add that the historical importance of the locomotive photograph has hardly been mentioned, for the historical significance of such a photograph is self-evident, or at least it ought to be.

The fascination as concerning the 393 and the 1312 is that they are exactly the same class of locomotive and exactly the same type, and yet they are entirely different in detail. And what kind of locomotives take up the number spaces between numbers 393 and 1312? Furthermore, this photograph of the 393, taken some four or five years ago, has become historical, for it is not an exact picture of the locomotive as it appears today, inasmuch as changes have recently been made to it, as to make it appear to be a different locomotive. And the 1312 as here presented is not exactly the way this engine looked when it came out of the builder's shop, for changes have been made to this one as well. And what will they look like ten years from now? A discussion of these technical details cannot be gone into here. We have but one road represented here; when we begin to cover other roads we find other things.

In the case of the 604, we have a locomotive of the wooden coach days applied to a steel train. This was an emergency case, the locomotive traveling only a small part of the regular locomotive district; the train is bound for Chicago. To be exact, it only pulled the train for twenty-two out of a locomotive district of 116 miles, and a total run for the train of 395 miles. The historical significance of the opportunity to take this photograph was taken advantage of when the picture was taken in 1919, because it was one of the very few, if not the only one, trips of this kind made under such conditions and with such a train. We did not foresee however, or at least could not foretell with any certainty, that it would be her last trip under such circumstances, for such it proved to be, the locomotive having been dismantled and scrapped in March, 1921, after a career of some thirty-six years of useful service. This type of locomotive is rapidly disappearing.



Portraiture at Home

By Edgar Felloes



Illustrations by F. Morris Steadman and the Author

Portraiture to many is the most fascinating branch of photography. It is undoubtedly the most difficult, but it is so natural for those who possess a camera to desire portraits of the home folks, that an article on this subject may prove of interest to a large number of our readers.



GIRL IN BLACK. By the Author

Anyone taking up portraiture for the first time should confine the work to out of doors; if they have the use of a garden so much the better, but excellent portraits may be made on the door step or near the porch.

In these days of the universal use of hand cameras it is the exception to find them fitted with a ground glass, but I should recommend those who are especially interested in this class of work to supply themselves with a ground glass attachment, as there is no doubt we can secure a higher average of success by this means. It is the only sure way to know if we are focusing properly.

This question of focusing is not fully appreciated by even the more advanced amateur and it is too much to expect the novice to be familiar with it. The popular idea of focusing is to get the image sharp on the picture plane, be it the coated glass or sensitive film. This kind of focusing is admirable for work of a scientific nature, but we expect more from the portrait than that.

CAMERA CRAFT

In the portrait made out of doors our principal difficulty will be to control the light, and it is much better to time our work for the morning or evening when the light comes from one direction; but one can do excellent work in the shade at mid-day with a simple contrivance, the head screen.

To make a head screen, construct a light wooden frame of lath, about four feet square and cover it with white sheeting; in the center of this, cut a hole on three sides of a twelve-inch square: thus we have a flap twelve inches deep and twelve inches wide which is hinged as it were on its uncut side. This flap of sheeting is pinned back according to the size of hole needed.

It will be convenient to have an assistant hold up the screen between the source of light and the subject, about three feet away from it. The screen will have the effect of softening the light on the features and the opening in its center will allow sufficient unscreened light to pass, which will pick out the highlights and give character to the face. Just how much light should pass, is governed by the size of the hole, which is controlled by the flap referred to, and here experiment and experience will count.

If the subject is posed, let us say on the shady side of the house, and the screen is held up between the light of the sky and the head of your subject, portraits may be secured which are very pleasing, and the little contrivance is easy to make and is worth time and cost if we wish to do good work.

Now the tripod: you should have one, or have some means of supporting your camera.

Good results from snapshots are scarce, the light necessary for a full timed exposure is generally too trying for portraiture, unless the lens is of such a speed that the work can be carried out in the shade; but I have in mind ordinary lenses as supplied to the average hand camera, say an anastigmat of F:6.3 or a rectilinear of F:8. This latter will do excellent work too, and don't despise it because it is only a rectilinear.

The portrait of the Girl in Black was made with a rectilinear lens in a room. I had some success with that portrait, among other places it was exhibited in London and I received real money for it when published.

The one thing that frequently mars outdoor portraits is spottyness, especially in the background. Pictures taken in the sun with a leafy background are rarely satisfactory, the leaves catch the sunlight and we have a distressing number of white spots to challenge the face; we lose relief and repose. The background is an exceedingly important part of the picture; a poor background will destroy an otherwise good picture entirely, and yet I have received pictures with this important point quite overlooked.

I am fortunate in having two outdoor portraits of real merit to illustrate this point; they were made by F. Morris Steadman and will serve as excellent examples for study. The reader will notice both backgrounds are entirely different in treatment. The illustration of the child in white frock shows the ideal treatment of a natural background. Some readers would

PORTRAITURE AT HOME



EXAMPLES OF OUT OF DOOR WORK

By F. Morris Steadman

hardly believe this picture could be spoiled by placing the child nearer to the foliage, yet such is the fact. If this child had been placed about two feet further into the picture the leaves in the background would have shown up sharply, but the photographer brought the girl forward sufficiently, so that when she was in focus the background "was off," and sufficiently soft to make a beautiful support of broken tones, and, with it all, one is not in doubt as to what that background consisted of. Outdoor portraits of this order are much rarer than one would think. It is only necessary to notice the work around us to be convinced of this fact.

Another point I wish the reader to notice is, the light comes from one direction and is cleverly handled on the child's face, and this also is unusual in portraits from the open. Notice the child's frock, it is white and delicate in detail, too strong a developer would surely have ruined that dress and over development also, but the photographer was skilful enough to get detail in his lights and in his dark background and foreground. As I remarked, the picture is worth more than a passing glance.

Let us now devote a little attention to the young lady seated on the house steps. Here we have another proposition and it is just as skilfully though differently handled.

CAMERA CRAFT

As the portrait was desired on the steps, it was not practical to have the ivy on the walls out of focus, therefore, the photographer selected a soft light for his work, as the ivy leaves had to show as sharply as the figure, the only way to treat them was in the mass, broadly; a harsh lighting would have quite defeated this end.

The resultant picture the photographer gave us was a charming portrait in black and gray. We should not fail to appreciate the great value of that white collar, besides arresting attention, it gives tone value to the face itself, and again, notice the catch light on the face, showing the light from one direction.


The pleasure one will get from these two outdoor portraits will be in exact proportion to one's skill. To impress on one's mind the lessons they teach, just notice for a time, portraits made out of doors and mark how long it will take, for you to meet the equal of these two pictures in clever handling. If you care to take this trouble you are sure to learn something.

In the next number of this magazine I will treat on the subject of indoor work.

THE TILTING TRIPOD TOP

A most serviceable tripod attachment for which the photographer can find many uses, is the Crown tilting top. With it we can quickly adjust our camera from the horizontal to vertical or any intermediate position.

I wish to draw the reader's attention to its great adaptability in copy-work, or in photographing such objects as are most conveniently taken in a horizontal position.



Those of us who have attempted to copy pictures, printed or written matter, have doubtless experienced the trouble that arises from the grain of the paper, and that is not all, we have often times experienced the difficulty of getting an even illumination over our original; good work is impossible where these conditions exist. Those who are supplied with properly regulated lights avoid these difficulties, but the average amateur has rarely these conveniences. It is evident if we place our original to be copied in a horizontal instead of in a perpendicular position, as it would be if tacked on the wall or to an upright board, we shall greatly facilitate matters. We can work before a window and close up to it, or better still we can work out of doors in the shade, with our copy pinned on a drawing board and supported at a convenient height and our camera pointing downwards, we will then find our illumination perfect.

Again, in flower photography, it sometimes happens if we wish to show a spray of flowers to the best advantage it can only be done by laying the flowers on a horizontal support.

Solid objects may be photographed in this way and will show clearly and distinctly. A great deal of work is accomplished with the camera pointing downwards.—E. F.

OUR WILD FLOWERS

Kindly Contributed by Our Readers

IV. CALIFORNIA PITCHER PLANT (*Darlingtonia Californica*)

This strange plant is to be found growing in boggy places or swamps, in scattered localities throughout Northern California and Southern Oregon.

The pitcher plant has long horizontal greenish root stalks and tubular leaves, ending in cobra-shaped heads with prominent wings or sides, these serve as a trap for insects, on which the plant is supposed partly to exist.


The fluid in the tubular stalks seems to have the action of a gastric juice, disintegrating the insects submerged in it.

The flower is single and of an attractive purplish color, growing on a long slim stalk from eighteen inches to two feet tall; it blossoms during the months of June and July.

On hot days, there is a fetid odor in the vicinity of the growing plants which probably attracts insects to their destruction.

The pitcher plant may be found in great profusion along the Feather River Highway, on the line of the Western Pacific Railroad, and autoists from San Francisco may discover something of interest in the study of this peculiar vegetation.—Harry S. Lawton.





Originality: With a Capital "O"

By W. P. M.

For the benefit of those "who take pictures merely for their own amazement."

Foreword: When through the curse of inhuman events, it becomes necessary for us to apply our craft in an effort to satisfy the vanity of those who have least reason to possess it, it is essential that we use the best of our ability to procure results that are original.

Therefore: To those of us, who are tiresome of producing nothing but 100 per cent prints day in, and day out: and who are desirous of attaining the wonderful tones, and original (?) idiosyncrasies relative to the artistic results of the Drug Store Amateur, this shower-bath of knowledge is respectfully dedicated. . . Applause.

Assembly will now come to order, while I demonstrate to them the new possibilities laid open for us through their acceptance of the leadership of one, for whom no book of rules was yet written.

First, we will eliminate ourselves from the horde of dolts, who follow prevailing rules, laid down by Methusalahs in the line of experience; and proclaim to the world our independence. . . Us for Ourselves till the Statute of Liberty shimmies up the Hudson.

The primal step in this direction is the purchase of a camera good enough for our grandfathers, (therefore good enough for us), i. e., style of '70. However, if we wish to conquer our prejudice, we may get along very well with one of the present day make.

Cameras of today are made in but one or two colors. Covering and bellows are usually of red or black: a good example of how much the manufacturers are concerned about the taste of the public. This is no reason for us to be satisfied: if yellow or green or other quiet color is desired a coat of good paint will suffice, and also increase the longevity of instruments of this variety of torture. . . "COVER THE SURFACE AND YOU SAVE ALL."

Perfectly satisfied with our apparatus we will not fill our plate-holders in precedence to our first photographic excursion, under the new order. If by any chance while loading the plate-holder the appearance of dust on the plate is conspicuous because of its absence, a camel's hair brush may be used to massage it: if this is done hurriedly, the film will become electrified and dust gathering will be greatly facilitated.

Every thing arranged, we are now ready for our first picture. We start off, not forgetting our invaluable exposure meter.

The subject selected we carefully replace the meter in our hip-pocket (in case hip-pocket is occupied, any other will do), and take a glance at the

ORIGINALITY: WITH A CAPITAL "O."

sky and foreground. One-fifth of a second at F:11 is our guess, and we're off again. . . Repeating the procedure half-a-dozen times, we congratulate ourselves on consuming but half an hour's time.

No loss of time there. Now that we are home again, we find that it will be some time until the cellar is vacated by father and his friends, (in this case), so we quickly unload our plate-holders, taking particular care that we do not place the film sides face to face, as this eliminates the possibilities of having the much desired finger marks retained in our prints.

Having at last the monopoly over one section of the dark room secured, we begin the pleasurable part of the afternoon's work. Finding the room rather warm, the surplus stock of gray matter, under our hair, suggests that warm weather and stale developer may cause trouble. We immediately forestall such a catastrophe by the addition of an ounce or two of alum to the developer, to harden the film.

We don't have much time left now, as supper will soon be ready, so we'll try our hand at time development. In an occurrence like this, we may deviate a little from our own principles, and snitch from the wise-acre. They say that with this developer at 60 degrees, twenty minutes is necessary for complete development. By our way of figuring that would allow one minute to each 3 degrees Fahr. . . as we will probably consume more time than that, while consuming our repast, we can raise the temperature of our solution to about 80 degrees and have twenty-six minutes. This will leave a margin of fully six minutes to pick our teeth.

We must admit, Brains are a great asset, many's the time we look around us, and deplore the scarcity of same.

Having fully submerged the plates, we can partake of what is left of the food, while we keep one eye on the cellar door, and the other on our mouth.

The scoffers of Genius are many. Who, among you, have not belittled the great men of the world—Edison, the Steel King, Coal Oil Johnnie, and the famous author of "May I Not?"

Considering the circumstances, we did pretty good. The clean glass was what we wanted for the printing frame, and after a few more trials we can easily compete with others. You're advised to wait down here till the company goes, is all right, but who among the most intelligent can develop films or plates in a solution of acid HYPO. Mistakes do happen.



CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FOUNDED MAY, 1906

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San Francisco, California, April, 1921

No. 4

A Matter of Identification

In "Camera Craft" of February, issued May 2nd, 1921, we published an old time photograph of men prominent in the photographic field under the caption, "As they looked in 1883." The question of identification was in some cases difficult, also an error crept into the typography.

From left to right; the first man on the upper row is Thomas Moran of New York, the second is Ben Pelgrift, salesman for the Scovill & Adams Co. of New York. The seventh is Mr. Wilson of the firm of Wilson, Hood & Co., of Philadelphia, a brother of Edward L. Wilson, old-time publisher of the Philadelphia Photographer, and the eighth is G. R. Angel of Detroit.

The lower row, also from the left to right: The first is Fred Braughtingham of Heroy & Marriner, the second is C. H. Codman of Boston and not David Tucker, as first reported. The fourth man was W. Irving Adams of Scovill & Adams Co., of New York.

Mr. Smith says he has been informed he was mistaken in regard to the identification of G. L. Savage as being the right hand man in the lower row and that it is Francis Hendricks of Syracuse instead.

For the Beginner

There is a novice joins the ranks of amateur photographers every day and some of them we hope to count among the readers of "Camera Craft."

It is our plan to devote space in that department "The Amateur and His Troubles" to these new recruits; to this end we will begin in the next number of this magazine, the publication of a sort of A, B, C of photography, and by this means we hope to help those readers who desire this elementary knowledge.

Many appear to be quite satisfied to turn their work over for others to finish, this is undoubtedly a time saver, but these photographers fail to get the full enjoyment out of photography, which will ever be a closed book to them. If, on the other hand, we learn to develop a negative and to judge when it is over or under exposed, that experience alone will help us to secure better results.

It was only last week when out to secure a negative in Golden Gate Park a lady approached us with her post card camera and asked such elementary questions as to focusing that we wondered what she could have done with the booklet supplied with the camera, and if she had lost it, why she had not asked for another.

EDITORIAL

On another occasion a camera was brought to us. Something had gone wrong with the lens. We were informed it used to work beautifully, but now,—not—any—more!

We examined the camera. Everything looked alright and we were in a quandary. On request a photograph was produced showing how the lens was behaving. This solved the mystery at once, and we were almost in doubt whether to laugh or cry.

The owner of this camera had been told to stop down to F:11, set the focus at 25 feet and then shoot. While doing view work this proved satisfactory, but when the portrait stage was reached, no wonder the lens would not behave when set at 25 feet for a portrait at about 6 feet distant.

Now, this amateur had a book of instructions, but she—there it is out!—but she declared she had no time to read it.

We smiled—it was a ghastly smile, we felt it was, and we wished, yes, we wished hard, this amateur had been a man.

Specialization

We have alluded to the subject of specialization before, but it is of so much moment to a certain class of amateur photographers that we feel it should be brought before their notice again.

Among amateurs, there is a class who take their hobby in a more serious light than merely to regard it as play. It is from the ranks of these workers that many, perhaps most of our professionals come, they are eager to learn and "Camera Craft" is just as anxious to help them. This we try to do by securing the assistance of the expert amateur and of the professional also. These men all specialize on some particular branch of photography.

In the present number many readers will be attracted by "Speed Photography." Mr. Reeves, the writer, though an amateur, makes this branch of work his specialty.

Mr. Carlson, on the other hand, has a leaning to mechanics and it was only natural and wise, that he specialize in that direction. To R. W. Carlson might be given the title of "Historian of the American Locomotive." What does the locomotive mean to the United States? Most of us would not be now, just where we are—having a good time—were it not for the locomotive; this near living thing naturally has a history.

We have arranged for articles with three professionals who are particularly good in their special lines, and these articles will be well illustrated, so that the amateur, and we hope the novice also, will find information of value to them.

It is our belief that specialization in any photographic line is a decided incentive to better work, a longer lived hobby and in many, many cases it has proved a stepping stone to some useful end.

We intend to keep "Camera Craft" a photographic magazine of wide appeal and, we aim to interest those also who are not actually photographers, believing many of them will ultimately take up a pastime that leaves no regrets.—E. F.

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

Warm Tones With Colloid Silver

In "Photographische Rundschau" Dr. Felix Formstecher has a paper on the production of prints in a range of warm colors by suitable (chemical) reduction of a silver chloride image. He recalls the process in which such results are obtained by restrained development of a gelatin-chloride emulsion and prescribes a method based on the conversion of a developed image into chloride and its subsequent exposure to light in presence of reducing agents appropriate to the production of tones ranging from blue to red chalk. The tones thus obtained are much more vivid in color than those resulting from the sulphide process and others dependent on the conversion of the silver image into a different metallic compound. The mixture found most suitable for the conversion of the developed image into chloride is:

Copper chloride	30 gms.
Hydrochloric acid, sp. gr.	
1.17	3 c.c.s.
Ammonium persulphate	10 gms.
Water	1,000 c.c.s.

This causes the image to disappear completely, other bleachers, such as ferricyanide and mercuric chloride, leaving a faint visible residue. The print is washed for a few minutes, treated in one or other of the following baths, and exposed to light:

For red to yellow color:

Stannous chloride	10 gms.
Hydrochloric acid, sp. gr. 1.17.	1 c.c.
Water	100 c.c.s.

The print should not be washed after exposure to light; the stannous salt may remain in it without ill effect.

For blue color a solution of hydrazine sulphate is used, but prints must be washed after immersion in it, otherwise they turn yellow.

Hydrazine sulphate	10 gms.
Water	500 c.c.s.

Nitrite yields a color intermediate between those produced by the two foregoing baths:

Potass nitrite	10 gms.
Water	500 c.c.s.

Papers coated with unripened chloride emulsion are most susceptible to this process. Gaslight papers, as a rule, are more suitable than bromide, and yield good results, particularly with hydrazine and stannous chloride with some chlorbromo paper the hydrazine is found to yield a remarkably bright color, but the print must not be left too long in the bath, otherwise the tone becomes degraded with black in time. Washing out the hydrazine sulphate scarcely affects the tone; and with some gaslight papers the process yields a violet blue tone scarcely obtainable in any other way. With stannous chloride, on the other hand, the tone is red-chalk, becoming brownish purple. Both tones are fairly permanent.

A necessary precaution in the use of the process is to avoid too strong a light when bleaching and treating in the subsequent bath. The prints should be handled and dried in a darkened room, and not exposed to bright light until dry. If so exposed whilst wet, spotted points with yellowed whites are obtained. The process leads to a certain loss of contrast, though this can be avoided by omitting the persulphite from the bleach, which then leaves a slight residual image. Dr. Formstecher does not anticipate extensive use of the process, owing to the time required for exposure, but puts it forward as the most convenient method for the special purpose of obtaining vivid tones. The process, of course, is not new (cp. Gamble and Woolley, "B. J.," December 26, 1913, p. p. 987-991), but the particular formulae given above have their practical interest.

A PHOTOGRAPHIC DIGEST

Photo-Stereo-Synthesis: The Photographic Representation of a Solid Object

[Students of photography have been so accustomed to associate the names of the brothers Lumière with chemical investigations into photographic processes that it is perhaps overlooked that MM. Lumière have long taken an interest in the optical side of photography. Their share in the origination of the cinematograph projector is their most notable contribution to this branch of photography: another piece of original work which has proved less fruitful is the stereo-photo-diorama, devised by them some years ago. In the following paper by M.

proportional to their separation in the subject and to the scale of reproduction. The set of transparencies, when viewed by a strong transmitted light from a chosen standpoint, produces the sensation of solidity in a striking manner.—Eds. "B. J.."]

If photographic negatives are taken, on a fixed scale of reproduction, of a series of parallel planes (equidistant or otherwise) of an object, whilst fulfilling the condition that each image represents only the intersection of the object by the corresponding plane, it will be possible, by superimposing the positive images made from the negatives obtained in this way, to re-

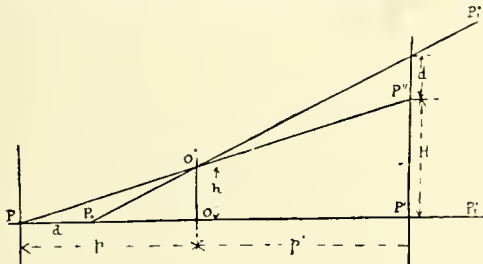


Fig. 1.

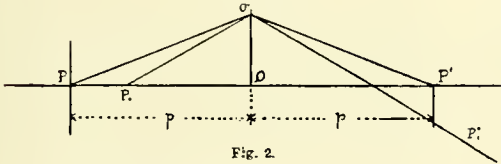


Fig. 2.

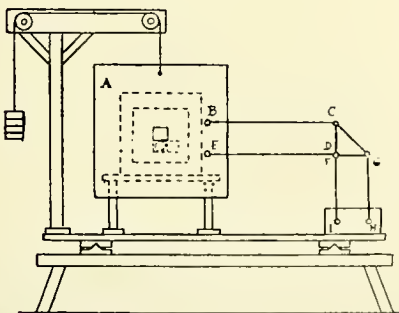


Fig. 3.

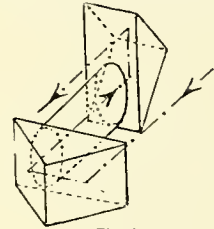


Fig. 4.

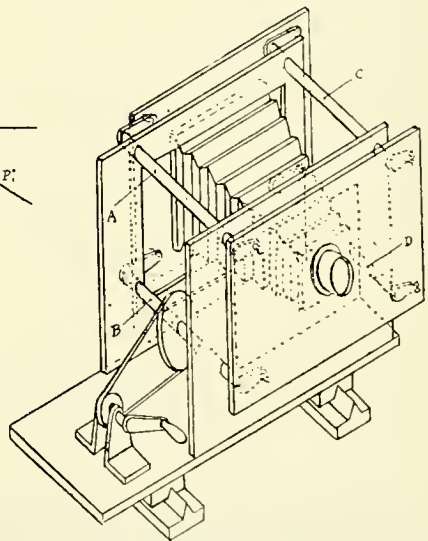


Fig. 5.

Louis Lumière, contributed to the Academy of Sciences and recently published in "Comptes Rendus," the theory and practice of a method of producing a single photographic representation of a solid object are described. The result obtained by the method which is here set forth consists of several positive transparencies representing successive planes of the subject, and mounted one behind another at intervals

form in space the appearance of the object photographed. For this it is sufficient that the distances of positive images are equal to those of the planes photographed modified by a coefficient corresponding with the scale employed.

For a theoretically perfect reproduction it would be necessary to superimpose an infinite number of images differing from each other to an infinitesimal degree, but

CAMERA CRAFT

experiment has shown that this condition, which obviously cannot be fulfilled in practice, is not necessary in order to convey to the eye the impression of continuity: a small number of elements is sufficient if, within certain limits, each image corresponds not with a plane, which likewise cannot be done in practice, but with a given focal volume. This focal volume should, however, be fairly small if it is desired to avoid parallax effects.

If the attempt is made to effect this reproduction by means of a lens possessing the maximum relative aperture which is possible, it is found that the depth of field is still much too great.

In order to obtain the necessary reduction of the focal volume, I have devised two methods, based upon the following considerations:

(1) In fig. 1 let O be a lens of flat field producing an image P' of a point P situated on the principal axis. If the lens be displaced so that its axis remains parallel to itself to a distance h and so that its principal planes remain in the same position in space, the image P' will come into the position P'', situated in the image plane conjugate to the object plane which contains the point P.

If, at the same time, the image plane be moved in the same direction and without rotation on itself through a distance H such that

$$\frac{h}{H} = \frac{p}{p + p'}$$

the position of the image of the point P will not have changed relatively to the limits of this plane. It can be easily shown that this will be the case also with every point situated in the object plane conjugate to the image plane.

It will, however, not be the case with points such as P, situated nearer to or further from the object plane. At each distance d of this plane there will be a corresponding displacement d'' of the curve of the secondary axis corresponding on the image plane, and the value of d' will be given by the formula—

$$d' = \frac{h p'}{p - d} - H - h$$

The image of the point P will thus yield on the sensitive surface a curve of length d' .

It is easy to see that there is an advantage in making the ratio $p : p'$ as small as possible, in making h on the other hand of as high a value as possible and in selecting a very small value for f . But the conditions of reproduction in practice limit the choice of these factors. Unless a sensitive surface of enormous dimensions be employed, there is the necessity of adopting a value of $p : p'$ of less than 1, whilst f cannot be less than about 20 cm.

(2) In fig. 2, O is the lens provided with a reversing prism and forming the image P' of the point P, p and p' being necessarily equal, having regard to the prolongation arising from the interposition of the prism.

If this lens be subjected to displacement of any amplitude whilst taking the precaution to effect the displacement in the plane of the principal section of the prism, and if this plane, as well as the principal planes of the lens, remains unaltered in position in space, the position P' of the image of the point P will not undergo alteration. On the other hand, the image of any point nearer to or further from the image plane will undergo displacements in accordance with the formula already set forth. Thus, for reduction of the focal volume, it will be sufficient to provide the lens with two reversing prisms, the principal sections of which are at an angle of 90 degrees, and to displace the axis of the lens parallel to itself whilst likewise keeping the principal sections parallel to themselves during displacement.*

For the application of these theoretical principles I first constructed an apparatus on the lines of (2), which appeared to me most susceptible of a practical form.

A board A (fig. 3), capable of sliding in its own plane on the front of a photographic camera, is caused to move so that its sides remain constantly parallel to themselves by the operation of the linked system B C D E and F G H I. It carries at its center a lens fitted with two Porro

*It follows from this arrangement that it is possible to photograph a surface of any given extent by means of a lens of any focal length, e. g., of very small focal length relatively to the dimensions of the surface.

A PHOTOGRAPHIC DIGEST

prisms arranged relatively to each other as shown in fig. 4, the principal section of the front prism being perpendicular to that of the rear prism, and the extension of the camera, which completes the apparatus, being such that the condition $p=p'$ is fulfilled. The whole apparatus is mounted on rails which allow of it being moved towards or away from the object to be photographed for the purpose of placing it in the successive positions corresponding with the series of planes chosen for the making of the negatives.

By moving the lens board during the exposure the definition of points not corresponding with the condition $p = p'$ is affected.

In default of prisms cut in the required manner, the images which I obtained were not altogether satisfactory, and I therefore constructed the apparatus represented in fig. 3, which is on the lines of (1) above.

Two frames, each affording a large opening, are connected by cross bars, not shown in the drawing.

These frames permit of the passage of four spindles A B C D each of which is provided at its extremity with a crank piece. To each of these cranks is fitted a pivot, and the ratio of the lengths of the arms of the front and rear crank is equal to

$$\frac{p}{p + p'}$$

The four front pivots engage in sockets fixed in the lens board and, similarly, the four rear pivots support a second board to which is attached the back body of the camera. The two boards are connected by a bellows which fits light-tight at each end.

Lastly, one of the spindles carries a pulley, by means of which, during the exposure, a rotating movement may be given to the whole system by the device shown in the drawing.

From the considerations which have already been set forth, it will be clear that every point beyond the object plane conjugate to the image plane corresponding with the ratio $p : p'$ yields on the sensitive plate a circular curve, the diameter of which is greater in proportion as the point is at a greater distance from the object plane. Moreover, the circle of confusion corresponding with the aperture of the lens adds its effect in diffusing the definition of this point. Only the points situated in the image plane conjugate to the object plane are sharply rendered.

The angular aperture of the lenses which can be used, by taking a high value for h , would permit of limiting the depth of definition to a small volume, but experience shows that it is scarcely possible to exceed, for the circumference described by the lens, a diameter greater than 80 mm., otherwise, on synthesis of the positive images there is produced a species of conical anamorphosis which completely alters the appearance of the result obtained. This effect appears to be due to the fact that for a given definition the focal volume is greater for points situated beyond the object plane than for those on the near side of this plane.

Whether this is so or not, by choosing suitable values for the different factors and by using a lens of large relative aperture, the apparatus permits of the production of practical results.

—Louis Lumière, B. J. of Photography.



THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

A Tripod Tip

Some years ago a writer in a photographic journal stated that he was able to hold his camera in the hand for periods up to two seconds, and that the exposures so made showed no signs of movement.

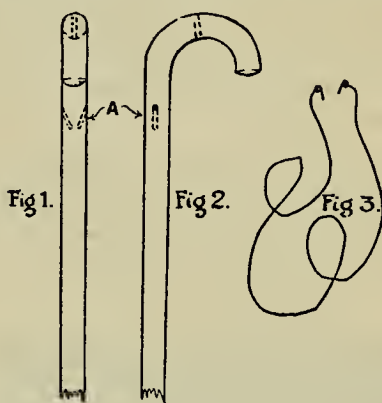
In normal circumstances, the carrying of one of the numerous lightweight tripods now on the market is not a matter of moment; but at times even the slightest addition to the weight of one's outfit causes one to hesitate.

Such a case occurred in the writer's experience when he decided some time ago to undertake a 250 miles walking tour. Of necessity, all weight was cut down to the irreducible minimum, and ultimately it was decided that a quarterplate Xit and film pack adapter would be the ideal combination.

In engineering parlance, "struts" had been proved "out" for this purpose (an ordinary tripod consists of three struts); therefore "ties" had to be considered. This was the inception of an idea, the product of which has stood the writer in good stead for a three weeks' tramp, and has enabled time exposures to be made which otherwise would never have been attempted.

Briefly, all that is required is an ordinary walking stick in which three holes have been drilled, an ordinary tripod screw, a piece of string, and two short lengths of wire.

The stick, which is preferably of ash and provided with a crooked handle, has drilled, one on each side, two small holes of about five-eighths inches in depth and about three-thirty-seconds inches diameter.



Naturally, a tripod could not be carried, and, from previous experience, it was felt that a walking stick tripod would not help. Mostly, they are heavy, and altogether unsatisfactory. But as a walking stick has to be carried (for what walking tour is complete without one?), why should it not be utilized in some way?

These holes are made at an angle as shown at A in figs. 1 and 2; but the exact angle is not of importance, although the more acute the angle, commensurate with strength, to the length of the stick, the greater will be the efficiency of the whole apparatus.

THE AMATEUR AND HIS TROUBLES

Another hole is drilled in the handle of the stick of such diameter as to allow the ordinary tripod screw to pass freely. When the stick is looked at as in fig. 1, this hole must be cut absolutely parallel with the length of the stick; but when viewed as in fig. 2 the hole must be oblique. The reason for, and amount of, this obliquity will be apparent later. The edges of the three holes should be nicely cleaned off and sand-papered, particularly the one for the screw.

The wire pins, which can be made from wire clips, such as are used for holding papers together, are shaped as shown in fig. 3, and the ends of the string are fastened securely to them.

Fig. 4 shows the apparatus in use, and it will be seen that the wire pins are pressed into the side holes of the stick, and the feet are placed in the loop of string so formed. The camera is then attached by means of the tripod screw to the handle of the stick, which points away from the user, and the position of the end of the stick is adjusted on the ground until the back of the camera assumes the angle required. Usually this is vertical; and, if this is generally desired, the angle at which the tripod screw-hole is drilled will depend upon the angle at which it is found most convenient to hold the stick. In other words, the tripod screw, when in normal use, should be at right angles to the ground. It will be obvious that the lens axis can be readily raised or lowered by changing the angle of the stick.

The length of the string will have an effect upon the rigidity of the arrangement, as, with the legs far apart, a far more rigid structure is obtainable than when they are close together.

There is no need to hold the camera in any way (in fact, it is best to make the exposure without in any way touching the camera itself) by means of the "bulb" or "antinous" release. If, however, a strong wind is blowing, or for other reasons it is necessary to steady or hold the camera, it should be done by means of a strong, steady push away from the body on to the camera back.

In this manner comparatively long time exposures can be made; but it is essential that an inelastic string be used, owing to

the difficulty of, otherwise, preventing even slight bodily movements communicating themselves to the camera.

After considerable experience of this arrangement the writer has no hesitancy in most strongly recommending it as a substitute for the tripod where the latter cannot be conveniently used.—H. J. M., in *Amateur Photographer*.

Blue Prints

It is not at all likely that the blue print will ever die out, it is too useful for that, but those who have used it in a small way, have no doubt experienced that for good results it is essential to have freshly prepared paper.

There is now on the market a blue print powder sold under the name of Cyanine, all that is necessary is to add a little of this powder to plain water and with a sponge, a tuft of cotton or a brush, to coat a sheet of paper with the solution, which, when dry is ready to print. Cards and fabrics may be treated in the same way, and the amateur using a postcard camera will find he can prepare his souvenir postal cards at a minimum of expense.

If we wish, "the blue print may be toned to sepia, brown, black or green, though the untoned print is very attractive in itself for a variety of subjects.

Cyanine may be procured in as small quantities as one ounce bottles, listed at 40 cents, and the manufacturers state it will keep indefinitely in the powder form. Instructions for using accompany each bottle.

Fixing the Negative

Novices are apt to hurry their negatives through the fixing bath, impatience to learn results may be cause. If the negative is returned to the Hypo no ill effects are likely, but if the worker removed the negative as soon as apparently clear, trouble is likely to be in the future.

There is an old rule, a good one; leave the film or plate in the fixing bath as long again as it took to clear it. The reason is, this will dissolve the hyposulphite of silver in the film, which can not be done by the wash water.



OUR BOOK SHELVES

D'Annunzio "Squares"? Himself

It would be interesting to know what Gabriel D'Annunzio had in mind when he sent a bouquet of roses to the great Italian actress, Eleanora Duse, on her return to the stage last Friday, after a retirement of several years. Perhaps he thought this was a sufficient amende honorable for his peculiar portrayal of his affair with Duse, the theme of his novel, *IL FUOCO* (The Flame of Life), or was his "violation of decent reticence, surpassing even that of Mr. George Moore," just Poetic License?

The *Flame of Life* is, perhaps, the most popular—at least in America—of Mr. D'Annunzio's romances, although *The Triumph of Death* and *The Child of Pleasure* run the former a close race.

The complete list of Mr. D'Annunzio's novels (*The Page Company*, Boston) is as follows:

The Triumph of Death, *The Child of Pleasure*, *The Intruder*, *The Maidens of the Rocks*, *The Flame of Life*.

The rest of the writer's works consists of poems and plays of comparatively lesser significance, and, of course, of a great mass of political pamphlets, speeches, and other results of his World War activities.

A Second Edition

Prof. C. J. Killen of the Bissell College of Photo-Engraving, Effingham, Ill., L. H. Bissell, president, has just issued the second edition of his book, "Operating for Photo-Engraving Process."

This little book is packed with information in condensed form. One can find in it just what he wants in a moment. The question of screen separations and stops is neatly arranged to supply immediate information. We can not do better than to quote from the preface:

There are three or four large books published that are complete expositions of photo-engraving, but a beginner in the

profession cannot always understand the technical and scientific data that is given. This little book is written especially for the beginner and it gives in plain language the actual practical method of working with enough theory to enable the beginner to understand why things are done as they are. As no one person knows everything, the writer hopes that experienced operators also will find a few points of value to them.

No claim is made for "best" formulae, but every one given is standard and has been in use all over the country for years. If the one you are using gives the desired results, keep on using it. This is not a book of "pet" formulae, but a book of practical facts that if studied and carried into practice, will help any earnest worker.

The price of this book is \$1.50, and may be procured from L. H. Bissell, president of The Bissell Colleges, Effingham, Ill.

The Air Brush

This is No. 181 of The Photo Miniature series, published by Tennant & Ward, 103 Park Avenue, New York.

In this book instructions in working with the air brush are very clearly given and the student will derive great help by following directions. The whole work is written in such a way that the enquiring reader should have no difficulty in grasping the essentials, for it is only practice that will make the workman.

There is always a demand for good air brush workers in commercial art and the young man or woman with some natural talent for the pictorial or artistic would do well to look into this subject as in it, he or she may find something to meet their desires.

This book will make interesting reading for any amateur photographer; he will learn how others do things. The price of this book is 40 cents.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

The frontispiece this month—"The Twisted Oak That Guards a Hill," is from a fine print made by W. Zenis Newton. Mr. Newton gives a great deal of serious thought to his work and while on his many rambles has made some excellent tree studies.

The original of this picture, together with some others by Mr. Newton, Otto C. Schulte and many more excellent workers, are in an album that is now being made up for circulation among its contributors.

This album will go through California, Oregon and Washington, and any workers in these states that would like to see it will have their name put on the route list if they will send one or more prints to be included in this collection.

Not larger than 7x11 or 8x10 and this size is preferred, if convenient for you to furnish. Make up two or three prints from negatives that you are proud of and send them to A. E. Davies, 1327 Grove Street, Berkeley, Calif.

Your prints will be carefully mounted and incorporated in this album. When the collection is complete each contributor will receive it in turn.

Notice

Illinois members I. P. A., I am back on the job, so send in your prints, with description for new Illinois State Album. Will the member who sent me prints some time ago please write me with correct address, so as to get album.

Thanks to one and all.

GEO. A. PRICE,
Director Ills. Division.
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CAMERA CRAFT

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Class 3.
- 4933—W. F. Perez, Jacksonville, Fla.
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Class 1.
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 $3\frac{1}{2} \times 4\frac{1}{2}$ and $2\frac{1}{4} \times 3\frac{1}{4}$. Developing, of general
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- 4946—Edward H. Schild, M. D., 338 Cleveland Ave.,
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Class 2.
- 4947—H. G. Fenton, Aptdo. No. 6, Parral, Chih.,
Mexico.
Class 2.
- 4948—Victor K. Szinyey, 65 Beach St., Bridgeport,
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 $3\frac{1}{4} \times 5\frac{1}{2}$ and 5x7. Azo and Velox, of various
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gin Islands, U. S. A.
 $3 \times 5\frac{1}{4}$ Argo, Velox of miscellaneous; for the same.
Class 1.
- 4950—J. M. Scarborough, Attoyac, Nacogdoches Co.,
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Class 3.
- 4951—Wm. J. Clark, Box 514, DeWitt, Iowa.
Class 2.
- 4952—Walter W. Blackwell, Utah Mine, via Scofield,
Utah.
 $3\frac{1}{4} \times 4\frac{1}{4}$, 5x7, 8x10 of snow scenes, mountain land-
scape, farm animals and clouds; for the same.
Class 1.
- 4953—Louis Kunc, P. O. Box 63, Hemlock, Ohio.
 $3\frac{1}{4} \times 4\frac{1}{4}$ and $3\frac{1}{4} \times 5\frac{1}{2}$ of scenery and farm views;
for anything of interest, but no portraits. Class 1.
- 4954—Victor Scheen, Kootenai Lodge, Big Fork,
Mont.
 $3\frac{1}{4} \times 5\frac{1}{2}$ of landscapes, mountain scenery, farm
scenes, winter scenes, domestic animals, etc.; for
the same. Class 1.
- 4955—Foster Sheller, Box 36, Gatun, Panama Canal
Zone.
 $2\frac{1}{2} \times 4\frac{1}{4}$ Azo glossy F grade of ships, locks, streets
in Colon and general subjects; for anything of
interest. I desire to exchange only photographs.
Class 1.
- 4956—C. F. Dorsch, 77 Elmwood Place, Bridgeport,
Conn.
Up to 5x7 on paper or postals of views, bathers
and nudes; for the same. Class 1.
- 4957—N. D. Panter, The Bawn, Foxrock, Co., Dub-
lin, Ireland.
 $3\frac{1}{4} \times 4\frac{1}{4}$ bromide and platinum papers of photos,
Dublin street scenes and Swiss winter sports; for
genre, landscape and street scenes of other countries.
4958—Belle Trump, 230 N. Weller St., Ottumwa,
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Class 2.

RENEWALS

- 276—I. N. Morrill, 2509 Rierce St., N. E., Minne-
apolis, Minn.
- 2618—Geo. H. Webb, Columbiana, Ohio.
Class 2.
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Unmounted stereo prints; for the same. Class 1.
- 3852—J. W. Jeffers, McClure Bldg., Rooms 610-11,
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From vest pocket size to 5x7 and enlargements
of landscapes, genre, a few nudes of children only,
also soft focus work; for anything in artistic lines.
Class 1.
- 4163—C. A. Heald, 127 Dexter St., Covina, Cal.
Class 2.
- 4314—W. E. Bowman, Dayton, Wyo.
 $3\frac{1}{4} \times 5\frac{1}{2}$ up to $6\frac{1}{2} \times 8\frac{1}{2}$ of cattle round-up and
branding views, mountain and stream scenery and
draped and undraped figure studies; for anything
good. Class 1.
- 4472—Harry E. Carpenter, 389 Remington Ave.,
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- 4723—Leonard A. Williams, 622 Second Ave. So.,
St. Cloud, Minn.
 $2\frac{1}{4} \times 3\frac{1}{4}$ to 5x7 of pictorial landscapes, figures and
portrait studies; for the same. Class 1.
- 4777—Souhei Nakano, 969 Handa-cho, Aichi-ken,
Japan.
Class 3.

CHANGE OF ADDRESS

- 4419—Rev. C. Lillie, R. 1, Van Meter, Iowa.
(Was Persia, Iowa.)
- 4581—Geo. W. Greene, 115 East Gorham St., Madi-
son, Wis.
(Was 315 N. Murray St., Madison, Wis.)
- 4622—A. G. Cronacher, 1263 Elizabeth St., Kenosha,
Wis.
(Was 1115 Yale St., Sacramento, Cal.)
- 4864—Walter H. Wilson, Milan, Ind.
(Was Sunman, Ind.)



NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

Item

The Misses Moore and Clarke, who have for several years successfully conducted a high class photographic studio in the Liebes Building, 177 Post Street, have disposed of their business to R. P. Whigham, photographer.

Miss Moore has started on a trip to England to meet old time friends and relations and Miss Clarke has decided to get married. These two ladies have the good wishes of a host of friends and "Camera Craft" is among these well wishers.

R. P. Whigham, the successor, is well known in San Francisco's professional photographic circles, and now numbers this last acquisition as the third studio he controls in this city.

Photographic Exhibition

We would remind our readers of the Frederick & Nelson photographic exhibition from November 1st to 12th, inclusive, of this year, at Seattle, Washington.

November, at present, seems a long way off, but do not procrastinate, write now for rules and entry forms.

California has some pretty good photographers—modesty dictates the expression "pretty good;" we do not mean exactly that, but of California photographers we would ask, why should we not win—the—first—prize?

Modern Stereoscopy

Almer Coe & Company, Chicago, have recently published their new booklet, "Modern Stereoscopy Photography."

This work was undertaken in the interests of those who have taken up this branch of photography, and also to stimulate interest in the small sized stereo cameras.

We have read this little book with considerable pleasure, it is written for the purpose of giving information and it really gives it. The amateur seeking information, or one who is at all interested

in this line of work should write to Almer Coe & Co. for this little publication.

The modern stereoscopic camera is something greatly in advance of the old type of instrument. It is portable and always ready. The pictures in one type of camera are about one and three-fourths inches square, but it must be remembered when viewed in the stereoscope they are magnified and one forgets the actual size of the picture on account of this extreme realism.

The reader should be reminded of one fact, that one of these little pictures are capable of giving really excellent enlargements, we have seen an 8x10 enlargement made from a negative of this sort which left nothing to be desired, it was surprisingly good. And again, in the matter of focus the small lenses required for this class of camera shows a remarkable depth of focus, everything sharp from about ten feet, and by the use of supplementary lenses it is possible for special purposes to bring the object to within six inches of the lens, in proof of this, the publishers show two stereoscopic pictures of the works in a watch photographed in natural size, and these pictures when viewed stereoscopically show wonderful definition.

The publishers say, and we have not the slightest reason to doubt them, the following: "In addition to its fascination for amateurs there are commercial possibilities in this form of photography as it is a practical way to show pictures of articles in their true form as a sales help, instead of sending or taking the real articles to the prospective customer."

The booklet also gives various developing formulas and hints for making these stereo pictures, and if you are interested in the subject you should write Almer Coe & Co., 105 N. Wabash Ave., Chicago, Ill., one of their four stores.

CAMERA CRAFT

A Press Photographer

Frank B. Howe, who operates a news photo bureau with Los Angeles as headquarters, has added the Newspaper Enterprise Association to his list of patrons.

The editorial offices of the N. E. A. are at 340 Sansome street, San Francisco.

Readers of Camera Craft will remember, Mr. Howe was a frequent contributor to its pages, but his increasing activities in his chosen profession have greatly monopolized his time. We have however obtained a promise from Mr. Howe for an account of his photographic work among Uncle Sam's big guns, this should prove interesting, but his experience would strike some as unpleasant, though Mr. Howe declares he enjoyed it.

Lensology and Shutterisms

A booklet, published bi-monthly for and in the interest of Wollensak dealers by the Promotion of Trade Department.

Under the title "Odds and Ends" Wollensak has the following:

All normal photographers have eleven toes, counting their Verito.

Thirty days' trial has always been offered on our lenses. While this privilege has been occasionally abused, we ourselves favor it because it gives the customer an opportunity to become better acquainted with the lens on trial. But we want your advice. In preparing our new catalog, should we specify 30 or 10 days free trial, or omit any definite mention of a time limit?

"What kind of a lens do you use to make glossy prints?" queried a regular photographer, quite seriously, at a recent convention.

Shades of Daguerre! We wonder if he also thinks that "The harder you squeeze the bulb, the faster the shutter works."

Convertibility in a lens is a desirable quality. Did you know that our Series I Velostigmat, Verito, Versar and Vesta all have at least one element that may be used alone?

Three sizes of bulb attachments are supplied for Studio Shutters. Small size fits No. 1 Studio. Medium size fits Nos. 2 and 3 Studio. Large size fits Nos. 4 and 5 Studio.

Photolithographer Wanted

The United States Civil Service Commission announces an open competitive examination for photolithographer on June 22, 1921, at any of the places listed hereon at which examination is requested in applications received in time to mail examination questions. A vacancy in the Bureau of Engraving and Printing, and vacancies in positions requiring similar qualifications, at \$5.76 to \$6.60 per diem, or higher or lower rates of pay, will be filled from this examination, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

Bonus—Appointees whose services are satisfactory may be allowed the increase granted by Congress of \$20 a month.

Citizenship and Sex—All citizens of the United States who meet the requirements, both men and women, may enter this examination; appointing officers, however, have the legal right to specify the sex desired in requesting certification of eligibles. For this position in the Bureau of Engraving and Printing men are desired.

Duties—For the present vacancy the Department desires a man who is skilled in the art of making zinc and aluminum process plates from photographic films and glass negatives for offset printing.

Applications—Applicants should at once apply for Form 304, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C., or to the Secretary of the United States Civil Service Board. Applications should be properly executed, including the medical certificate, and filed with the Commission at Washington in time to arrange for the examination at the place selected by the applicant.

The exact title of the examination, as given at the head of this announcement, should be stated in the application form.

Two Notable Novels for April

The Page Company (Boston) have in train for publication in April two notable novels—"The Princess Naida," a romantic and fast-moving tale of today, by Brewer Corcoran; and "A Flower of Monterey," a romance of the Californians, by a new writer, Katherine B. Hamill.

NOTES AND COMMENT

Motion Photography

Those of our readers interested in this subject, and any who contemplate taking up this branch of photography, will find several pages of interesting information incorporated in Burke & James' catalogue devoted to this subject.

This book is intended to make you familiar with the "Universal Camera;" it is a description of the methods and the machine. The work is well illustrated and among the pictures are photographs of Martin Johnson, the world famous cinematographer of primitive races, operating his Universal in the South Sea Islands. And there is also a picture of Mrs. Martin Johnson making pictures of a group of cannibals, on the Island of Malekula. This camera was knocked about in the bottom of a whale boat for weeks at a time, carried through dense brush and is still making perfect film.

It takes a perfectly made camera to stand this hard usage and the trying tropical climate, but the Universal stood all these tests and delivered the goods. Perhaps our readers have seen in the movies, these natives of the South Sea Islands, black as the "ace of spades," but the Universal registered all—the wrinkles and the ugliness.

If you are interested in motion picture photography for any purpose, you should write Burke & James, Inc., 240-258 East Ontario Street, Chicago, and they will be pleased to send you a copy of Motion Photography.

Soft Focusing

It is interesting to note the steady growth in popularity of soft focus lenses. There are many of these types on the market and experimentors have turned their attention at times to various appliances to secure the soft focus effect, with any make of lens. If this can be successfully accomplished so that the worker may secure satisfactory results therefrom, there is little doubt a demand for such a lens modification would result.

The Artograph Screen Company, 500 Fifth Avenue, New York, have worked out just such a device for which they have secured a patent.

The Company puts forward this claim: "Works wonders in making a diffused neg-

ative superior to any soft focus lens on the market, guaranteed, or money refunded." Photographers who are interested should write the Artograph Screen Company for particulars of their lens attachment.

In Business Fifty-three Years

Fifty-three years is quite a little while and the Hyatt's Supply Company of St. Louis, Missouri, can boast of having been in the business of manufacturer and distributors of photographic apparatus and supplies for 53 years.

This firm has issued a new professional catalogue which is an encyclopedia of all photographic apparatus and studio outfits. It should be in the hands of every professional photographer.

Remember the house of Hyatt is headquarters for everything photographic.

"Every Click a Picture"

A new booklet has just been issued by Burke & James, Inc., the manufacturers of the famous Rexo Line of cameras, films, paper and photo products.

Readers of Camera Craft are doubtless familiar with this fact, but here is a bit of news new to them. In this booklet are several pages of practical information for the amateur and some others and this information is so well illustrated with pictorial diagrams that the reader cannot help but learn something of real value which is certain to be of direct benefit in future work.

The reader should, if interested, write Burke & James, Inc., 240-258 East Ontario Street, Chicago, Ill., for a copy of "Every Click a Picture," which will be sent to them

A New "Little Cousin of Long Ago"

The Page Company announces the publication of "Our Little Crusader Cousin of Long Ago," by Evaleen Stein, the twelfth volume in that famous educational series for young people—"The Little Cousins of Long Ago" Series, which is uniform in format and appearance with the established Little Cousin Series. In "Our Little Crusader Cousin of Long Ago," Miss Stein tells, with that fanciful charm of which she is mistress, the story of two gallant boys who went to Jerusalem on the Third Crusade, which was lead, you will remember, by Richard the Lion Hearted of England and Philip Augustus of France.

CAMERA CRAFT

Canadian National Exhibition, Toronto

This will be the thirtieth annual exhibition of the Toronto Camera Club.

A cordial invitation is extended to pictorial photographers throughout the world to submit prints. The Canadian National Exhibition has the largest daily attendance of any annual exhibition in the British Empire, so that the pictorial photographer will have exceptional opportunity here for the display of his art.

For entry forms, etc., address J. R. Lawson, Secretary Exhibition Committee, Toronto Camera Club, 2 Gould Street, Toronto, Canada.

Exhibits should reach the club rooms not later than July 30th, 1921.

The Portland Society of Art

Portland, Maine, at the Sweat Memorial Art Museum on Tuesday, May third, was held the opening private view of the annual exhibition of this Society.

This exhibition consists of oil paintings, pastels water colors and miniatures. This event is looked forward to by an ever growing number of Portland's citizens and it is a matter of civic pride, that the visitors to these annual exhibitions are not confined to a certain favored class, but are representative of the people.

"Par-Excellence" Tank Company

The amateur finishing trade has now grown to such enormous proportions that caterers for that line of business are realizing the importance of adding to or changing their equipment to meet demands.

Developing and printing for amateurs and for the trade generally has not only quality for its desideratum, but the element of time plays a vital part in the success of one's undertaking.

Time is money; an old adage, it is true, but today, the truthfulness of it is more apparent than ever. To save that time, which is tantamount to saying, to save that money, the equipment must be perfect—par excellence in fact.

It is odd and a good omen, that that there is on the market the "Par-Excellence" Tank. It is easy to remember the name, for that kind of outfit—par excellence—is exactly the quality you must find in the whole line of apparatus you need;

it stands for success, which is nothing more than extra profit legitimately gained by providing against lost effort.

The "Par-Excellence" Tank Co., makers of the "Petco" film developing system, with offices at 1059 Teutonia Avenue, Milwaukee, Wis., can give you some interesting particulars with regard to tanks which may greatly benefit your business. It is a duty you owe yourself to become familiar with all that is up-to-date concerning your profession and if interested, as you doubtless would naturally be, you should write them for all information you need.

Cleveland Club Moves

We have been notified that the Cleveland Photographic Society has moved from 1100 Huron Road, to better and more spacious quarters located at "The Towers," 6106½ Euclid Avenue, Wickliffe, Ohio.

This progressive Club has now a modern dark room, projection and printing facilities, as well as a fully equipped studio for the use of members.

There has been arranged, an educational program covering all branches of photographic work.

Photos Wanted!

We wish to draw attention to an advertisement in this issue which we think will be of interest to most of our readers. It is the ad of Lothers & Young, Pictorial News Service. They are in the market for good prints or negatives of live news events, also photographs which tell a feature story; for instance, a woman who holds public office, or one holding a big executive position, or a man who has an odd way of making his living, etc. Photos of new inventions and unusual features in general.

If there is a groceryman in your locality who has his delivery wagon made like an airplane or a steamboat, or you know of a man living in a tree, or a small boy who has made an automobile or other invention all by himself, it would be well for you to make a photograph of it and send it to Lothers & Young, 251 Post Street, San Francisco, Cal.

To the Amateurs

Do not forget, the Emporium Photo-Contest closes July 25, 1921. Write for rules and entry forms now. Send in your best work.

SAN FRANCISCO
PUBLIC LIBRARY

CAMERA CRAFT



SAN FRANCISCO
CALIFORNIA

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A Photographic Monthly

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Expirations—Subscriptions to Camera Craft are discontinued on date of expiration. The date on the address label on the wrapper shows the time to which each subscriber has paid. Thus: Jan. 21, means that the subscription expires with the number dated January, 1921. ¶Renewing—In renewing a subscription, do not fail to say that it is a renewal, giving name and address just as now on the address label. ¶New Address—In notifying us of a change of address, give both the old and new address. Should you miss a copy through change of address, advise us of the fact, and another will be gladly sent. ¶Dealers—All photographic supply dealers and new dealers are authorized to receipt for subscriptions in our name.

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The Red Box
Gives You
a Complete
Supply



All Three
Grades—to Suit
All Your
Negatives

Cyko in a New-Style Package

Here is Cyko in a brand-new handy package, devised for those who seek the best possible print from every negative.

The package contains a supply of Studio Cyko in all three grades, as follows:

Two dozen sheets of *Contrast Cyko*, 3 1/4 x 5 1/2, for weak, thin under-timed negatives, which all amateurs occasionally obtain, or for negatives which are flat from overexposure.

Four dozen sheets of *Normal Cyko*, 3 1/4 x 5 1/2, for negatives normally exposed and normally developed.

Two dozen sheets of *Soft Cyko*, 3 1/4 x 5 1/2, for extra-strong or contrasty negatives, or for soft prints from normal negatives.

In addition, there is a complete set of six black paper masks, for making prints with white borders from all the standard film sizes, 1 1/8 x 2 1/2 to 3 1/4 x 5 1/2, and a complete instruction book, the *Cyko Manual*.

Paper enough for 96 postcard-size prints or 192 prints of vest-pocket sizes—in the *Cyko Combination Package* for \$1.00.

Ask your dealer or use the quick-service coupon.

For better prints from all your negatives, use Cyko. In the *Combination Package* will be found a price list of all the surfaces and sizes.

QUICK-SERVICE COUPON

ANSCO COMPANY,
BINGHAMTON, N. Y.

Gentlemen:

I inclose one dollar for a *Cyko Combination Package*, as advertised. Please send it to me promptly at the address below.

Name _____

Street or Box No. _____

City or P. O. _____

State _____

Date _____

ANSCO COMPANY
Binghamton, N. Y.



"THE SHADOW ON THE WALL"
By LOUIS FLECKENSTEIN

CAMERA

CRAFT



A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.

Editor-in-Chief

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SAN FRANCISCO

EDGAR FELLOES,

Associate Editor

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VOL. XXVIII

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No. 5

Instantaneous Flashlights

By S. Marmaduke Crow



With Illustrations by the Author

Here are some facts familiar to most photographers and some that are brand new.

Flashlight photography has grown to be one of the most common forms of picture taking and is used by numerous camera owners. The methods of making flashlights have been simplified to such a degree that there is hardly an occasion at the home or elsewhere that the reliable flash does not do its share in recording events.

There are many ways of taking flashlight photographs, but there is only one way to make the flash the same as daylight, that is by working within the limits of the flash. Of course it would be foolish for a person to try and throw the light of a flash as far as the sun throws its light, but within the limits of the outfit used, sunlight can be surpassed.

There are many patented inventions for making still flashlights and nearly an equal number for making instantaneous flashes, that is, taking all kinds of action at night or indoors without the aid of daylight with ordinary flashpowder as the only illuminant.

While I have never gone through the files in the patent office at Washington, I have been told by those who have, that there are thousands of these patents filed there. Some of these inventions are so large and heavy, that it is necessary to use a dray to move them around; some of them fire by large storage batteries and others are used in connection with the ordinary house current, all of them being complicated. The storage

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batteries used are large and heavy and can not be handled with any degree of freedom, and the attachments that work on house current, require many feet of wire to make them useful for the most ordinary kind of undertaking.

All the above float patents mentioned are good and will do the work providing you can get your subject to perform in a given spot; but my method, on the other hand, of instantaneous flashlights is so simple that it is hardly worth mentioning, but as I have been requested to give my methods to the readers of Camera Craft, I will carry them along through the process I use.



READY

My flash attachment is as easily handled as the ordinary "Bull's eye" and just as portable but it is only a third as large and lighter in weight.

Every camera user knows there are about eight factors used in taking a picture by daylight, the main ones being the correct exposure, which includes about seven of your factors, and shooting at the right time can be considered as the balance of the factors. All the factors used in daylight photography are very simple and easily learned and if all the details are carried out, the finished photograph will be a success, but if there has been an omission any where in the process, the resulting photograph will be a failure. Flashlights require all the factors required by daylight with an

INSTANTANEOUS FLASHLIGHTS



REAL ACTION

additional four or five which will figure in the final result. The instantaneous flashlight is made the same as any ordinary flashlight, with the exception that it is made with the shutter working at a much higher rate of speed than does the speed of the flash alone, which has been figured out by some of the manufacturers. Some claim their powder works faster than other makes and that so and so can be done with it, but when you examine your plate after "shooting" a few children, dogs and cats and other likely subjects you will find that half of them will have their eyes shut and the slightest movement will show. The photographer is pretty sure the eyes were open and the subject still when the flash was fired; it is the old, but true story, the powder was too slow. It is pretty safe to say that none of the brands on the market at the present time, that is that I know of, work at a greater speed than about a thirtieth of a second if that, which is entirely too slow to stop quick motion, especially when the camera is close to the subject.

The method I use could not be more simple. The outfit is, in my opinion, the smallest flash outfit made. The flash-gun with the instantaneous attachment does not weigh more than six or eight ounces with the amount of powder included.

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It does not make any difference how you fire the powder, that having nothing to do with taking the picture. Your style of flash-gun will govern that part of the work. I use the ordinary toy pistol cap spark for firing the powder and have found that about as dependable as any of the methods; but the electric, flint, or any other form can be used if your particular style of gun fires that way. All you must keep in mind is the fact that you must have something that is going to fire you flash powder and fire it when you want it, that's all as far as the gun is concerned.

The attachment I use for making my instantaneous flashes was invented by Charles Estey, for many years a Press Photographer. It weighs about two or three ounces and when used is attached to the flash-gun. It can be attached to any gun. This attachment differs from all others in that the powder shoots the attachment and the attachment shoots the shutter. No flash, no exposed plates. You will see by the cut of myself, my camera and gun with attachment connected all is ready to shoot. It will be easier to figure the manipulation with a little study than I can explain in writing. You will also note the attachment has a little plate that rests over the powder. This plate naturally has another end which sets over the release, and is pivoted at its center. When the powder is ignited, causing the flash, this little plate is forced up over the powder and the other end goes down, striking the release and liberating the shutter by means of the four-foot cable connection.

There is also another very important factor to be taken in consideration when taking photographs and that is the camera. This is much more important than the majority of camera users will acknowledge as you will often hear people say, "Any old camera will do; a good lens is what does the trick." "You're all wrong, Steve," the better the lens, the better its corrections as regards a flat field, etc., and a shaky front on your camera is certainly not going to help matters. If the front of your camera is not solid and at all times parallel to the plate, you are going to have trouble, continued trouble and more trouble. The best lens made will not cut a sharp picture on your plate if your front board is not solid and in correct register with the plate. Remember this and examine your own camera and see how far forward and back or how much side play there is in the front, and if there is any, get it fixed and a great many of your "fuzzy-graphs" will turn out to be pictures.

The importance of this necessary rigidity and register will be more impressed on the reader when he is reminded that all instantaneous flashes are made with the lens Wide Open, the same as necessary for quick daylight exposures, and being wide open, the depth of focus is not very great.

The camera I use is the Paxta Press, manufactured by The Sharman Camera Works of San Francisco. It weighs three and a half pounds with a large multispeed shutter and a Goerz Dagor lens, also a Graphic plate holder. This is a very important feature in taking instantaneous flashes, the camera must be of light weight and easily handled, for one is required to work quickly in order to swing and shoot without delay. The system

INSTANTANEOUS FLASHLIGHTS



THE PHOTOGRAPHER HAS TO BE LIVELY TOO

used for focusing the Paxta Press is entirely different from any other than I have seen and it is absolutely true to a thousandth of an inch. When I set my scale for twelve feet, that being my favorite distance for ordinary instantaneous flashes, I can eliminate any and all fear as to the focus. So much for the camera and attachment.

You will notice by the illustrations given with this article that all of them show "Action." That is one of the factors I spoke of in the early part of this story. Anybody can see this "Action," but to get it on the plate is another thing. It requires study, a quick eye and practice and to attempt to tell just how it is done would be wasting space as there are so many things to be taken into consideration. Seeing this action is about the same as seeing the natural expression of a sitter when making a portrait.

The picture of Norman Baptie going over the barrels is an example of getting correction action and I give the following data concerning it: It was taken at one-eighteen hundredth of a second. The distance from camera to the middle barrel was twelve feet, at least that's where I set the lens. I shot the picture while kneeling, in order to give the skater an altitude, for you know, if you have ever had any experience with ice skating, that it is impossible to jump very high, and I got as low as possible in order to show

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a decided separation between the skater and the barrels. You will also know that the skater, in doing a stunt of this kind, would depend entirely on velocity and not attitude to carry him the length of the barrels and to gain that velocity you will admit that he must be "going some" when he gives the little lift that is to carry him across the barrels or drop him in the middle. Baptie is here doing what is known to skaters as a "Flying Three;" his approach to the barrels is backwards, he jumps in the air and at the same time gives himself a twist making a complete turn while in the air forming a perfect figure 3, and lands at the other end of the barrels backwards.

Now the actual taking of an instantaneous flashlight requires a good camera, a flash attachment, a four-foot antinous release and flash powder. The first thing I do is to get my outfit together and adjusted; this word "Adjusted," is the African in the wood-pile; it means shooting the flash and the shutter in union; I can not tell you how this is done; that must be figured out by judgment and experience. You must know flash powder and your outfit; knowing flash powder amounts to this; it takes flash powder just so long to burn, that is it consumes a percentage of the time to flare up and die down. The flash attachment must be regulated to shoot the shutter at the highest point of the flash, in other words when the flash gives its maximum of light. When adjustment is affected as many shots as wanted may be made and they will all be the same; a new adjustment will not be necessary unless the outfit is taken apart or a change has taken place somewhere along the line of operations.

The pictures of skaters were taken from a five-hundredth of a second to eighteen-hundredth of a second and in each instance the plate received full exposure. None of these plates have been doctored in any way, being left just as they came from the wash water. I used from thirty to sixty grains of Victor Normal flash powder and worked with a wide open lens, for, it is not the idea to see how much or how little powder can be used but how much you can burn, in order to get all the light around your subject, which will be sufficient if flash and shutter work in unison.

I have a great many other pictures taken by instantaneous flashes during my daily press work but they all concern persons and places. I am not able at this time to reproduce any of them as they belong to my paper and the City Editor, for reasons better known to himself, has requested me not to use them. At some future time, however, I may be able to use a few with interesting details concerning them.

It is not far fetched when I assert I use my instantaneous flash within its limits exactly as the average camera operator uses daylight, the outfit is as easily handled as taking an ordinary snapshot. I hold the camera in my left hand and the flash-gun and attachment connected thereto in my right, then I am ready—all I have to do is to watch my subject and at the proper moment fire, reload and fire again if another shot is required.

INSTANTANEOUS FLASHLIGHTS

In conclusion there is one other point I would like to bring to the attention of my readers with all the emphasis possible and it will apply to photographic work generally: It is the Developer. More trouble is caused by developer than anything else. Take this tip from me and do not let anyone, it makes no difference who it is, change you from the following.

Get a good developing formula, I may suggest Pyro and a tank, learn it, know what it will do, not what it will not do, make this developer a part of taking your picture. Know when you make an exposure just what your developer is going to get out of it for you. Above all things, don't let someone come along and show you a bunch of stuff that is good or perhaps better than some you have and tell you he got it with such and such a developer. He will always tell you his developer is the best. It is for him—he knows his developer, but it will not be for you and if you do not get as good results with your developer as he gets with his there can only be two reasons for it and they are, you did not select a good formula in the first place or you have neglected to handle it as it should be handled or you have failed in some other point. Don't blame the developer but dig in and find out wherein you are wrong. For myself, will say that I have been working at photography many years, just how long, I will not say more than this, I have been here on the four corners of San Francisco's Press Center fifteen years as a Press Photographer and I made pictures of my son when we was six weeks old, he is now past eighteen years, and the first camera I ever made an exposure with was a little Kombi, which took twenty-five pictures on a little strip of film about the size of the present movie negative stock. There may be a few photographers that will remember this little toy, and when it has been possible I have used about the same developer, no one has ever been able to convince me there is another just as good.

I am a graduate from the School of Hard Knocks and have learned what I know by hitting the ball (photographically) for the above number of years, and I trust my readers will look at this article as an unretouched photograph and not from a writer's viewpoint. I thank you.



OUR WILD FLOWERS

Kindly Contributed by Our Readers

V. THE SOAP WEED (Adams Needle or Yucca of Montana)

In the January issue of *The Camera Craft* there was an article about the Soap Plant of California. In Montana we have a plant similar in uses,—they say the Indians use the roots for soap and our “honyokers” have been known to make a soap to use for a shampoo. Otherwise the plants are not alike in looks or growth; our soap weed grows in dry gravelly soils out on open hillsides and never in the shade of trees. The flower stalks are two to three feet high and covered with greenish white bell-shaped flowers, they bloom in June or July, according to an early or late season, and, as they have a very strong sweet sickly odor, they are not popular for cut flowers. The blossoms are covered with beads of a sticky syrup that draw the ants like flies to the proverbial molasses barrel. And the ants not only eat the syrup but the flower petals as well.

The plants grow either in single bunches or often in clumps as shown in the picture. The leaves are long, slender and with very sharp points, hence the name of Adam’s needle. The seeds form in pods the size and shape of the blossoms and hang on all winter; they are flat, round and brown. The pods make unique rattle boxes, if the frost comes before they are ripe enough to crack open.

Mrs. W. M. Hohanshelt.



Photographing Big Guns in Action

By Frank B. Howe



With Illustrations by the Author

News photography, even in its mildest phases, cannot be called a monotonous or drab profession. It is a continual procession of widely-varied events, running the whole course of human undertakings. And since the efforts of the news photographer are only concerned with those happenings that are exceptional, out of the ordinary, and away from the commonplace, it can be readily understood that the life of the man who undertakes to pictorially bring these things to the people is an unending series of "thrills."



TWO BATTLESHIPS FIRING BROADSIDE
AT THE SAME TIME

ADMIRAL HUGH RODMAN, COMMANDER-
IN-CHIEF OF THE PACIFIC FLEET.
WATCHING THE TARGET

Included among these widely-diversified thrills are exciting and nerve-racking stunts without number. One has scarcely finished classifying one event as his most exciting or troublesome undertaking when along comes another to surpass it in interest, difficulty, or danger. It is to be doubted, however, if anything among these multifold happenings can surpass in its requirements on the photographer, the target practices with major caliber artillery held at infrequent intervals at coast artillery army posts, and the annual naval target practice of first line super-dreadnaughts.

It is not the province—or, some would say, the ability—of the present writer to expound the proper method of accomplishing this hazardous photography. If, however, a general idea of the conditions under which such photography must be accomplished can be arrived at, then perhaps the

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space will be justified. For such an opportunity for pictures is not an everyday one and it is of great assistance to go forth when the opportunity does come, with a general understanding of the conditions that are to be met and of the obstacles which must be overcome.

Taking, first, the target practice of the super-dreadnaughts, those terrific 700-foot floating fortresses which can hurl twelve projectiles each weighing hundreds of pounds for ten or twelve miles, simultaneously, we find ourselves confronted with the most difficult of all big-gun photography.

On each of these ships, of which the *New Mexico*, flagship of the Pacific Fleet is an example, there are four turrets, two forward and two aft. These are mounted so that one is above the other. Each carries three fourteen-inch guns. A fourteen-inch gun is one, the diameter of which is fourteen inches. These turrets, as the name indicates, are revolving. And, being mounted one above the other, both can be aimed in the same direction at the same time. We then have the condition of six guns forward and six aft, all pointing at right angles to the side of the ship. In other words, when they are in this position, the ship is ready to deliver a broadside—twelve guns firing off to one side of the ship at the same time.

Between the forward and aft turrets is a deck, raised above the others a few feet, and known as the boat deck. Extending up from the other decks are two towers, one on the forward deck and the other on the aft deck. Part way up these are located searchlights and, in consequence, the little platforms on the sides of these are known as searchlight platforms. The boat deck and the searchlight platform offer the only available spaces for the photographer.

In preparation for firing, all glass is removed from the ship and all movable pieces taken down. Loose articles that cannot be removed are firmly tied down. This is because the concussion would break most of the glass and knock down most of the movable furnishings. Cotton is supplied all hands for their ears and they are warned to stand on their toes and keep their mouths open. Otherwise serious injury might occur.

These cheerful preparations taken, one is ready to start taking his pictures. To make matters worse, he has no possible way of knowing when the explosion is to occur. The charge is set off by an electric switch in the hands of the gunnery officer on the bridge. An approximation of the time of the first shot can be secured by watching for a certain flag (its description must not be published—and rightfully so) to be hoisted. As soon as this goes up, it is probable that the first shot will be made in fifteen or twenty seconds, perhaps sooner. But the flag stays up until the order to cease firing is given. Consequently the flag is only of use on the first shot.

Finally after much maneuvering of the ship for position, the flag starts up. You grasp your camera and, remembering all the warnings the officer has given you, you wait for the shot to go off. Hours pass; then days and weeks. Just as you are about to look up and see what is causing the delay, something happens. You scarcely know just what it is for a few seconds.

PHOTOGRAPHING BIG GUNS IN ACTION



U. S. S. MISSISSIPPI FIRING BROADSIDE OF 12 14-INCH GUNS

There is a blinding flash; you are knocked several feet back, if not knocked down completely, and a rain of soot, dislodged from the smokestacks, comes down. Perhaps in your flight through space you come up against an iron post or the side of the superstructure and your breath rapidly departs, not to return at once. In time, you think of your camera. Chances are that the ground glass is cracked, if not shattered completely. You haven't pressed the release, but that doesn't matter. If your hand was anywhere near the trigger, you have your picture all right. The concussion took care of that. Your wind is gone; your face is black with soot; your hat is ten feet away and your carrying case is wrecked, but you have your picture and you are happy.

And then you remember that the officer said seven broadsides were to be fired!

So you change a plate—or, to be more accurate, a film, because your plate would probably also be broken and portrait films, packs, or rolls, would not—and focus up. That is, you focus up if you have had the forethought to substitute a piece of oiled paper for your groundglass, or to remove the focusing screen altogether and trust to markings of focus made on the bed of the camera. You note that the movie news men have tied the legs of their tripods more firmly to the deck and have braced themselves for the next picture. Some of them have put wads of chewing gum on their crank handles to keep their fingers on the crank. Others have found a sailor who is willing to stay on the deck and, supporting himself against some convenient fixture, do his best to brace them sufficiently to enable

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them to keep cranking. Generally the sailor-brace is dislodged when the guns go off, but if he isn't, and, instead, gets wedged in place some way, the cameraman gets his picture.

And all this has happened in about thirty seconds! Up go the muzzles of the guns to an oblique position and you know the next shot is about due. As has been said, the flag is up for good now, so the only warning you have is when those guns go up from the horizontal to the oblique position. You have to then hold yourself in readiness and hold your thumb on the trigger. The shot, when it goes off, will do the rest.

And so it goes for seven shots, until you are coal-black and the deck is an inch deep, it seems, with soot. One cameraman has a cut over one eye. Another has skinned his knuckles, while a third has had some oars from a life-boat (whaleboats, they call them), that have been overlooked in the removing process, descend on his head. But you have your pictures—unusual, priceless pictures that will bring joy to the editorial heart and checks to the photographic pocketbook.

In passing, it may be well to mention that the least concussion occurs directly behind the gun. As you go farther to the side, it becomes greater. From a position at right angles to the mouths, you feel the heat of the exploding powder, as well. But, unfortunately, the best picture-position is where there is the most concussion—shooting right across the muzzles.

The worst is now over and the fun begins, for there are three of the dreadnaughts in the party, steaming along single-file, and it is now the turn of the next ship to fire. A gang of barefooted gobs, armed with firehoses and swabs, quickly have the deck spotless again; you are taken down to one of the officer's cabins to wash up; and then you go out on the stern of the ship to photograph the ship that is behind you, as she fires.

The firing of the other ship does not bother you so far as concussion is concerned, although the noise is rather intense—enough so, that it pays to keep the cotton in your ears. Standing in comfort on the stern of the ship, you see the flag go up; there is a flash; and you press the release. Here is where real photographic skill becomes more necessary. When your own ship fires, nerve is more essential than skill. If you have focused properly and your hand is on the release, you are bound to get your picture. When the other ship is firing, you must press your release the instant you see the flash; otherwise the thing is all over before the camera goes off. Inversely, however, a rapid exposure is not necessary, 1-50 or 1-100 getting it nicely. This, of course, refers to focal-plane shutters. Were the ship closer, or a shutter of the iris type used, the exposure would have to be much faster. As to exposures when your own ship fires, that has to be fairly rapid—say 1-400 with a focal-plane shutter—because of the movement the concussion causes the camera itself, and also because of the fact that the operator is flying through the air, pulling the camera along as he does so.

So much for the fourteen-inch guns. Sometimes they fire them singly or only a few; that is easier to make pictures of. It is our province here to consider the most difficult possible condition, for if one becomes familiar

PHOTOGRAPHING BIG GUNS IN ACTION



AFT, U. S. S. NEW MEXICO, THE CLOUDS
ARE FIRE, NOT SMOKE

SMOKE, DIRECTLY AFTER FIRING

with these difficulties, he will have no trouble with the less-troublesome ones that arise when only a few of the guns are used. It should also be mentioned that these ships also have several five-inch guns. These are also located on the sides, though not in turrets, and are fired along with the fourteen. But a few more guns, more or less, make little difference, except to add a little to the concussion, so it is scarcely worth while to dwell upon them. In cases where the five-inch guns are to be fired also, the searchlight tower is the only available point of vantage for a camera. In passing, it may be well to mention that these fives must not be treated lightly. A five-inch gun does not look or sound nearly as formidable as a fourteen. Do not be deceived; the little fellows have a kick like "jackass brandy" and will knock you down quite as readily as their big brothers.

One sidelight before we leave the navy, to illustrate the concussion generated by the discharge of fourteen-inch guns. During the recent practice off Southern California, the town of Santa Barbara, 100 miles away, reported the city shaken quite noticeably, while the city water system of Avalon, Catalina Island, twenty miles or more away, was put out of commission, according to dispatches.



NAVAL OFFICERS CLAIM THIS A MOST
REALISTIC BATTLE PICTURE

A 14-INCH GUN AT FT. McARTHUR, CAL.,
FIRING

CAMERA CRAFT

After working on a battleship at close range with twelve of these monsters busy, photographing an army land battery, in which one of the fourteen-inch rifles is mounted, is not so bad. It seems, however, that the water takes up a lot of the jar and concussion which the land does not, so, from a photographic standpoint, one fourteen-inch rifle on land is equal to several on a battleship.

The land battery is constructed so as to be hidden from view from any distance. They are large cellars without any tops—or any “hootch.” When the gun is loaded it is poked up over the edge, fired, and recoils back down again. Here again, the discharge is electrical, but by watching for the “tripping” of the gun up to an oblique position and by keeping an eye on the sergeant who operates the aiming mechanism, one can tell within a few seconds the time of the shot. Here, too, the cotton and the tiptoes are used. As a rule the concussion will release the shutter if one’s thumb is resting on it, but not always; so, for safety, it is well to be ready to press, and to do so when the flash appears on the ground glass.

The concussion from one fourteen-inch gun is quite appreciable—decidedly so—but one can generally keep his feet and the ground glass of the instrument is fairly safe. The vantage ground is much better than in the case of ship guns, for there is plenty of room, and then, too, with the battery sunk several feet, the photographer can stand on the top of it and get a shot looking slightly down, thereby showing more of the operation than when he is crowded onto a ship’s deck.

An amusing, but decidedly important sidelight, which one will gain from experience if he is not forewarned is this: When you’re looking down the hood of your camera watching for the discharge of the gun, don’t hold the top of the hood up against your face in the usual way. Focus as usual; then lower the camera at least six inches and watch the ground glass from a respectful distance. Otherwise when the discharge goes off you may lose a couple of teeth. There is a nice hard metal piece on the top edge of the hood, and the concussion of the gun hurls that metal against your face ten times as hard as it hurls the projectile forward.

That’s about all there is to getting news photographs of big guns. You may feel that the results aren’t worth the effort, on the way back to town, but once you get in the workroom and see those films begin to develop, you’ll be willing to go back every day for a week, if need be, and lose all your teeth, an eye or two, and a couple of fingers. That is, you will if you are as proud as most news photographers are of the slogan of the profession: “Bring back the picture, no matter what difficulties may be in the way.” The creed of the press photographer is “get the picture” and why should a little matter of detail such as a bunch of fourteen-inch guns stop him?

And then you can go out next day and photograph an airplane stuntman with two miles of nothing between you and the earth. It’s quite a life.

II. Portraiture at Home

By Edgar Felloes



With Illustrations by the Author

Indoor portraiture is not so difficult as some may think, and one great advantage we have is, that we can begin, to serve an apprenticeship as it were, on our own folks, for a time; this is a great help.

The points wherein home portraits most frequently fail is excessive

flatness on the one hand and excessive contrast on the other. Naturally if our lighting is correct our results would probably be satisfactory, but this harshness is difficult to overcome in an ordinary room as the light usually is so localized. This, then, brings us to the subject of a reflector and a reflector is the next essential in the outfit to the Camera itself. It is pretty safe to say when we understand the use of the reflector we know how to make portraits, that is, in a mechanical way. The other essential for really successful portraiture is something apart from actual pho-



GIRL WITH CARDS

tography, it cannot be learned from written description, I am not sure if it can be learned at all; it is a gift; to the successful photographer it is personality—plus. However, we do not dwell on this point, but, that more useful consideration, a means of lighting our shadows.

There is one rule in lighting our subject easy to remember: The stronger our light the darker our shadows. Try the following experiment, to fix the fact in the mind. Have your model sit before a window with a semi-transparent curtain (cheese cloth) screening the whole of the window:

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now draw a part of the curtain to one side so that unscreened light falls on the face, notice the shadow; now drop the curtain and notice the shadow again. You will see when the curtain is lowered the shadow side of the face is considerably softened, whereas, with the brighter light, it is harsher. We must naturally turn the face in such a way that it shows both light and shade, and we learn the following lesson: that if the shadows in our portraits are too dark, we do not improve things by adding to our lights.

The second experiment is, throw a light by the reflector across the softened shadow caused by the screened window; we will then notice how much lighter that shadow side of the face looks, but the lights in the face will be inclined to flatness; now, these lights should be picked out, but not with the retouching pencil as many do, but by light. This is not difficult of accomplishment, just open a slit in your curtain and watch your model, as soon as you have sufficient unscreened light on the face, stop, the opening in the curtain may be only three inches wide, enough to give life to the face is all that is necessary.

The room in which the two portraits illustrative of this article were made and also the portrait published in last month's issue, was one with two windows in adjoining walls; that is to say, when I stood with one window on my right hand, the other window was at my back. This right hand window then we will designate as the main window or No. 1, the other window will be called No. 2.

I used four cheese cloth curtains to each window, two for the upper half and two for the lower. With this arrangement I was able to get many pleasing light effects. These curtains slid on tape held by small screw eyes, fixed in the window frame. The curtains after use were removed by simply untying the tape.

Let it be understood here, the window No. 1, was generally used for principal light, and it was these curtains I manipulated to secure effects. The window No. 2 was generally left screened, its chief purpose was to secure a subdued light to help the shadows.

Besides these two windows there was a reflector which consisted of a frame covered with white sheeting. I was supplied with two plain backgrounds, one a black, the other of a gray material. These two backgrounds were tacked on the same frame, one on each side. These backgrounds, however, are not absolutely necessary to an amateur, the wall of the room may be made to serve instead, but the use of such a background as I have described, is an advantage on many occasions.

If the reader will turn to the portrait of the Girl in Black, in the April number, he will see an instance of the black background used to good purpose as a very dark gray; this effect was secured by merely turning the black background towards the light of the principal window, and this enabled me to get the relief I needed, to detach the black dress, both the background and dress were in reality of the same color; but by noticing closely, one will see the black dress was turned away from the light and that also helped.

PORTRAITURE AT HOME

The light over the model's left shoulder was also from the right hand window; the shadow on the front of her face, was lightened by the second window, which was left screened, and the reflected light on her right cheek, was thrown there by the white reflector, close enough up to get the effect



JOAQUIN MILLER

but just out of the field of view. The light on this reflector was from the right hand window also, but the curtains were slid back so that the unscreened light might strike the reflector and from thence travel to the face, it will be evident then, that this strong light traveled between the background and the model.

I would say to the amateur, that this home portrait work is one of the best ways of learning to control light, as we are forced to do considerable scheming at times to arrive at the desired end.

The study of the Girl with Cards was made to illustrate a story. The subject was posed under very much the same conditions as the Girl in Black. In this case, however, the gray background was used turned slightly to the main window, the model however had her back turned to this, the source of light. The curtain was parted a little to allow the unscreened light to pass between the model and the background. The candle was lit just to show in the photograph, but the real source of light came from a mirror placed on a chair, and this mirror gave the effect of the face being lightened by the candle, the reflecting screen was not used in this picture. Window No. 2, screened as usual, served to light the shadow side of the subject.

The portrait of the late Joaquin Miller, the poet, was made before the black background slightly turned to the light, my subject was placed closer to the main window than usual, and the curtains were slightly parted to pick out the lights on the cheek bone, the temple, and down the nose, these catch lights may not show in the reproduction.



Dorotypes and Opals

By Edgar Felloes



In the Dorotype, we have a revival of the old Ambrotype as applied to the gelatine dry plate. Some contend the name Dorotype, should be Doretype named after the gifted painter Gustave Doré and so it is also known, but as I fail to see anything reminiscent of the artist Doré I have spelled the word as J. K. Rose, representative of the Hammer Dry Plate Company, declared it should be written.

To Mr. Rose I am indebted for particulars of this process as worked by him, and furthermore, I wish to acknowledge the pleasant half hour spent in looking over his samples and listening to his pointers on the working of this beautiful process.

For the benefit of a younger generation of photographers let me say the Ambrotype was nothing more than a wet collodion positive on glass. As a matter of fact these pictures were negative by transparency, but showed as positive by reflected light and to make them still more attractive the photographic impression was whitened by mercury in a later practise; it was then backed, generally with a piece of black velvet in contact with the film, this gave to the picture a wonderful richness and depth to the shadows and this type of picture was known as an Alabastrine. It was then placed in a hinged and leather covered case and was treasured by the owner in a way the modern photograph rarely enjoys. Now, these photographs which proved very permanent may be found in the collections of a few and are valued for their historical worth and as marking a stepping stone in the development of photographic processes.

Photographic workers of those days then decided something quicker than this was needed, something that could be made and delivered "while you wait" and the step from the Ambrotype on glass and velvet backing in its neat velvet lined case, to the Ambrotype on metal with a black varnished face, and its most tawdry paper frame—the Tintype came into existence. Having cheapened the process, it quickly came into disrepute, and the rapid advance of photography in other lines pushed the process into the discard.

There was also a process in those early days known as the Photo Crayon. This consisted of a very thin positive, usually an enlargement, also made by the wet plate process, and this positive was backed by a tinted crayon paper on which a sketchy background was added with crayon; on top of this paper then, the positive, a portrait, with its clear background, was laid and the whole framed together. It was interesting to note the picture on glass and the drawing on the paper combined perfectly and made a

DOROTYPES AND OPALS

pleasing effect. It must be understood the paper backing was not stuck to or mounted on the glass; it was necessary that there should be only a mechanical and not an optical contact between the two surfaces.

Having described these early processes the reader will probably be more interested in the Dorotype and furthermore, be impressed with the old adage, there is nothing new under the sun. Dorotype then is a modernized treatment of Ambrotype with a gelatine dry plate as its base in place of the old collodion wet plate.

The first essential to a good Dorotype is a perfectly balanced negative, from this a positive is made with absolutely no fog visible in any part of it. To make it easier to secure this end preference should be given to a medium slow plate, a developer well restrained and an exposure absolutely correct. Those who have done copy work will understand all this and should not experience any serious difficulty. It is also important that the positive picture should not have the density of a negative plate; by laying the positive on a sheet of white paper we are able at once to decide its suitability, there must be no heaviness in its shadows.

There does not appear to be any particular developer. Mr. Rose showed me a striking portrait of a girl's head developed with pyro, also some portraits done with metol-quinol and as far as the finished results went there did not appear any choice between them.

I will speak of the pyro developed portrait first on a $6\frac{1}{2} \times 8\frac{1}{2}$ plate. As I stated above, these plates must not have the density of a negative, use a normal developer well restrained with bromide of potassium. Then the question arises, how much sulphite? I might tell the novice here, the sulphite of soda is used as a preservative; were it left out of the developer the pyro would quickly oxidize, taking on a strong yellow color which would stain the plate so badly be it positive or negative as to render it useless; the sulphite of soda then is used to prevent this, and this staining effect is governed by the amount of this salt used. We do not learn to develop until we know the use of, or object for which our chemicals are employed. When we have gained this simple knowledge we begin to improve in our work.

The positives for Dorotypes may be made either by enlarging or by contact, the exposure in either case has to be exact. The positive is developed in a well restrained developer which permits the image to come very gradually, otherwise the plate is treated in the usual manner. When all these manipulations have been attended to it is washed, then bleached and toned to a very rich sepia brown. All who have attempted toning of prints will have learned the final color is governed by the color of the first developed image and it will take a little practice to determine the shade and the amount of printing to secure these rich sepias.

When the plate was finished it was placed film down upon a pinky-yellow or a pale peach colored silk and then framed in an easel support, and I think anyone seeing the picture finished this way could not help but be

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enthused over it, the texture of the silk added wonderfully to the beauty of the photograph.

Another example Mr. Rose showed me was a Dorotype toned and, instead of having the silk backing, it had been treated to an application of gold bronze. The way this had been applied was to mix the powder with the vehicle generally used, and often called banana oil, and flow this over the film side of the plate, the effect was good, though I prefer the silk background.

Still another example of Dorotype was one in which the portrait and drapery had been colored. The coloring was excellently done and this picture was bound over a finely ribbed peach colored silk of pinkish shade for a background. The effect was most pleasing. This kind of work, though likely to attract considerable attention in the show case, has to be the product of an artist.

There was another class of photographic work shown by Mr. Rose. It consisted of opals, both portraits and landscapes. The Hammer Dry Plate Company are manufacturing these plates also, and they are supplied in boxes of half a dozen in standard sizes from $3\frac{1}{4}'' \times 4\frac{1}{4}''$ up to $11'' \times 14''$. The opal glass itself is imported from Belgium, as I was informed the quality needed was not procurable here, and the Hammer people coat them with the special emulsion for the purpose intended. Some of these pictures on opal were in sepia and others were left in black and some were colored. They were exquisite and their similarity to carbon transfers on opal were very marked. When one figures the time necessary to produce the carbons as against these developed images, the advantage was with the latter. In fact when I picked up one of these plates and began squinting along the face of it towards the light Mr. Rose laughed and said, "I know what you are after; these are not carbons but are wonderfully alike," and so they were.

I have not given formulas in this article as they are supplied with the plates, and my advice is to follow instructions closely and the results to be secured by the careful worker are really beautiful.



CAMERA CRAFT

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A Reminder

We receive letters from our readers expressing their approval of Camera Craft, and oftentimes they allude to certain articles as having been of particular interest or help to them.

What does this show? It merely shows that in our hunt for likely subjects we happen to have hit on some particular theme that appealed to that particular reader.

About two months ago a new subscriber in forwarding his subscription desired us to send him any back number with an article on home portraiture. It was then we discovered that something likely to be useful to that particular person had not appeared of recent date, and it was through that letter of enquiry our readers have had two articles on the subject. Naturally, we should have come around to an article of this sort sooner or later, but it was that letter that prompted us to take up the subject sooner—than later, especially as it was likely to interest others.

This, then, is to remind you that if you need information we can supply, you should write us and we will help—you, and if the information you desire is of interest to others, we will be glad to acknowledge that you have helped—us.

Color Filters and Tripods

For general purposes of viewing a pale yellow filter will be found the most serviceable and as we are in the season of bright days and brilliant flowers the amateur should provide himself with a ray filter of this sort. For those enthusiasts who simply must snap all their views we would recommend the little filter that has clear glass on half its surface while the other portion is tinted. This screen, if fitted over the lens with the colored or yellow glass upwards, will be found a great aid to avoiding what is known as "bald headed" skies. A bald headed sky in a print in what is known as a sky showing blank paper. Such a sky does not exist in nature because all skies have atmosphere in them, whereas the white paper in the upper portion of our print means nothing but a blank. Negatives that have had sufficient exposure frequently show this defect and negatives that are undertimed, invariably do on account of the forcing of development to secure detail. These defects can be easily avoided by using a filter.

When we use a filter we must increase our time of exposure, but this can often be accomplished by using a larger diaphragm and it is the only way if the exposures are to be made with the camera in the hand, for it

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must be remembered if we use the next larger stop, to the one we are in the habit of using, we give the film or plate twice the amount of light that it formally received, even if our shutter speed remains the same.

For example, we will suppose the reader is in the habit of making his snapshots with his shutter working at 1-25 of a second, which is about as slow an exposure as can be made with the camera in hand, and not show camera movement, and he uses stop f 11 with that speed; if he opens the stop to F7.7 or F8 he practically doubles his exposure, although the spring tension of his shutter remains the same 1-25 of a second. With this extra illumination we can still use the camera with the rayfilter, on well lighted landscapes, provided such filter is a pale one.

We have learned from a number of finishers that the average amateur negative is under exposed and one of these workers told the writer that all of 90% of hand camera work was undertimed. This would go to show that a very large percentage of the exposures were more or less "close up" and were probably interiors or portraits or views with heavy shadows.

We believe if the beginner would realize the great advantage of a tripod the little extra weight would not count. Tripods are now made so very compact and light that every camera user should have one. Consider the amount of film that can be saved by using a tripod. It will make all the difference in the world if we can give an exposure of half a second up to one second's duration. As we remarked, tripods are of very light construction now. They are made that way to meet popular demand. This light tripod is sometimes troublesome to handle in a breeze, but they can be made more rigid by the following simple expedient.

Procure a cord with a loop at one end. This loop is to be large enough to pass over the head of the tripod screw, and the length of the cord to be about twice the height of the tripod; hold the end of the cord in the left hand, let it fall as a loop to the ground immediately under the camera and place a foot on the cord and draw upwards, to secure sufficient tension, the camera will be very steady under this treatment, and will stand considerable wind pressure. The right hand is free to operate the shutter.

Our Contributors

Readers, will we believe, find the present issue of more than usual interest, as we are able to present to them two special articles which the respective photographers could not have secured without press connections.

We have in preparation another article, by a free lance worker that will undoubtedly appeal to many readers. These photographers need just two qualities; the first is the ability to make a good negative and print, and the next very important quality is what is called a "nose for news."

Judging by the letters of enquiry we constantly receive as to the best ways of securing some returns for our photographic work, we believe a study of the methods of a free lance worker will meet that question. After all, we have noticed, that the best of these workers get "gathered in", and become specialists for various concerns in the end.

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

Copying Music by Photography

Thousands of musicians in this country, as well as many abroad, still pursue laborious, painstaking, and very inaccurate methods of copying manuscripts, oblivious of the easy, pleasant, accurate, valuable time-saving process of photography. Those readers who are musically inclined will realize what it means to sit down and copy, line by line, bar by bar, and note by note, some ancient manuscript raked from the dust of ages. Moreover, it needs the patience of the patriarch Job to write with anything like neatness in the spacing out of the notes, and their forming, whereas this is done by photography with indisputable exactness and clarity, with no risk of upturned ink by passers by on manuscripts of value.

The work can be done with quite a cheap outfit, if means are provided to hold the manuscript in position. The small camera and enlarger are quite suitable, and have been employed with great success. However, a little ingenuity will find ways and means of devising and adapting one's present equipment to copying.

In order to consider the means to be employed for each, and to consider the actual methods to be taken, we might with convenience divide them into three groups. (1.) Those with box form fixed focus cameras. (2.) Those with single extension focussing cameras. (3.) Those with double and treble extension cameras.

The first question that arises is, How should the music be held for copying? The ordinary enlarging easel is not altogether adaptable, and is expensive; but this is not to be despised, for it may be possible to alter to advantage. For ordinary music, such as sacred songs, and small music such as leaflets for bands and orchestras, a frame similar to a printing frame, with hinge back and swinging arrangement, a

little larger than the unfolded music, will do; but books of music are not so easily dealt with.

One way which will suggest itself is to construct an arrangement of two pieces of glass so that the book may be laid flat upon the desk or table and the leaf to be copied sandwiched, as it were, between them in an upright position. In order to make sure that the other leaves do not rise and so obstruct the vision of the camera a small elastic band can be used to keep them flat, by putting it round that half of the book which is in front of the glass.

As to the camera, if one is only possessed of a single lens box form camera of fixed focus, the method mentioned in previous articles of using supplementary lenses, or magnifiers as they are called, will enable one to adapt the camera to all that is needed, and if the camera is one of the single extension folding type the same system may be applied.

Another way is to have made, or to make, if one is a handy mechanic, an arrangement of an additional bellows to slip onto the camera and increase its extension, just as many manufacturers make lantern enlargers for attaching to customers' own camera. By such simple means nearly all workers can arrange their apparatus adaptably to the purpose of copying; but, in passing, it is to be noted that it should not be attempted without some little knowledge gained through these pages of the elementary rules of photography. Some methods should also be contrived for sliding the easel, or frame, to and from the camera for the alteration of lens to easel distance, and of working to scale if work is to be done quickly: as well as means for suitably lighting or illuminating evenly by

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artificial light, magnesium ribbon, or flash powder, when daylight is absent.

The developer used for the plate or film should be one giving good contrasts, such as a well restrained hydroquinone formula, and the plate may be given a lengthened development to increase contrasts as one finds the necessity. A full exposure is as essential as full development, if contrast is to be obtained.

It will be found that one is almost bound to resort to enlarging, as the finished prints will need to be, in most cases, of the original size; but, if the amateur does not want to bother with enlarging, he can easily get this done by a firm of repute specializing in such work: names of such firms are given in the advertisement columns.

The handling of manuscripts, which, indeed, may sometimes mean heavy books, will, of course, have to differ with the class of work to which one can gain access, together with the growth, or probable growth, of the work to be dealt with. Of course, if the amateur only intends to do an occasional print or enlargement, it would not be necessary to prepare so elaborately; but, even here, it would be advisable to take some means for their storage, as they are so likely to get damaged.

In the dispatch of finished prints, together with manuscripts and books, if they are sent by post due care must be exercised in their transit, and it is advisable to "cover the risks." The prints should be sent separately, and there should be some definite means of getting signatures for all music returned. There is a large field for enterprising photographers, and it is surprising that more has not been done in this direction, seeing how very arduous and laborious the old system of copying by hand has been.—By Edward Farrow, in *Amateur Photographer*.

Amidol Developer; Properties and Preservation

We have often wondered what would have been the course of events in the evolution of development processes if amidol—diamidophenol hydrochloride—had been discovered before alkaline development with pyro had been worked out. It certainly would have been very different from what history now records, and one is

tempted to conclude that instead of an imposing array of chemicals, which, as Mr. Watkins demonstrated some years ago, differ but little in their ultimate action on an exposed plate, we should have had a wide choice of formulae in which amidol alone appeared as the developer proper, and which would have allowed of striking variation in results. Even as things are, and in spite of severe competition with established developers, amidol has secured to itself an almost unique place in present-day procedure. Amongst professionals and amateurs it is regarded, and rightly so, as the developer par excellence for bromide papers, and there are many workers—their number is increasing, we believe,—who have adopted it, after making practical tests, for the development of negatives.

The ease with which an amidol developer can be prepared, its non-staining qualities, its response to the addition of moderate amounts of potass, bromide, and the inertness of its solution towards the gelatine, are qualities which recommend it to those who care about the quality and permanence of their finished results. In the hands of the scientific photographer it has proved a veritable *multum in parvo*, for not only can a plain solution in water be used for normal development, but by variation of concentration, and of the acidity or otherwise of its solution in sodium sulphite solution, it can be made to develop either superficially or from the back of the emulsion. In addition, when its normal sulphite solution is made alkaline with a carbonate, it can be used for the development of images in silver iodide—images which are only developed by the most active of the "ordinary" developers when these latter are made up with caustic alkalis. Furthermore, the developing action of an amidol solution in water only has led to a clearer recognition of the fact that the emulsion vehicle, gelatine, plays an important part in the development process.

Most photographers imagine that the gelatine has nothing at all to do with the development, but an overhand glance at a pyro-developed negative will quickly dispel such an assumption, for the developed image will almost invariably be found to be in pronounced intaglio, indicating

A PHOTOGRAPHIC DIGEST

that the gelatine actually in contact with the image has lost its swelling power. This effect, which is produced to a greater or lesser extent by all developers, results, in all probability, from interaction of some of the development products with the gelatine; the former are thus removed from solution, and are thereby prevented from causing the development to "slow up" prematurely. But this property of being "tannable" is not the only one of interest to the photographer who uses amidol. It has been demonstrated that gelatine behaves, under certain conditions, as though it were an alkali, i. e., it will form salts with acids. Moreover, it is fairly anxious to form such salts, so much so that it will steal acid which is already forming a salt with a weak base. Now, amidol is a compound of an acid with a weak base, and on immersing an exposed plate in an aqueous solution of amidol the acid is attracted and held by the gelatine, leaving behind a solution of amidol base, which is the developer proper. Thus, as the solution penetrates into the film it becomes weaker and weaker in acid, until, at a certain depth, its developing power becomes apparent; the development starts, therefore, in the depths of the film and slowly spreads towards the surface. It is, of course, possible to enhance the "depth" effect by rendering the developing solution slightly more acid with metabisulphite, in which case the gelatine combines with the excess of sulphurous acid before development begins. The potential alkalinity of gelatine has been commented upon some time ago in connection with the tanning of leather, but the evidence afforded by amidol in depth development is as striking as any which has hitherto been published.

Apart, however, from its more or less scientific interest, amidol exhibits characteristics which wide-awake photographers have not been slow to take advantage of, and were it not for the relatively poor keeping qualities of its solution in one of sodium sulphite, it would, in all probability, have been the most widely used developer of the present day. It may be advisable, therefore, to consider briefly the question of the stability of its solutions, and to indicate what steps may be taken to enhance its keeping qualities.

In the first place, there is no doubt whatever that the purity of the product, as purchased, is of first-rate importance; exceedingly small amounts of certain impurities will lead to rapid deterioration of the crystalline powder, unless contact with the atmosphere is rigorously avoided. The factors which regulate the inclusion or exclusion of these undesirable impurities are the concern of the manufacturer, and, as photographers, all we can do is to favor the brands which show least darkening, for, other things being equal, the whiter the crystals the better will be the keeping qualities of any solution made therefrom. The rate of deterioration of the made-up developing solution is primarily influenced by its alkalinity, or otherwise, and a recognition of this fact seems to have been the guiding principle in the search for substances which will, by their addition, allow of stock solutions being prepared.

One of the first expedients suggested was the neutralisation of the alkalinity of the sodium sulphite by the addition of about one-eighth of its weight of potass. metabisulphite — a suggestion which was made by the late C. Welborne Piper, and which is certainly very effective. Later, Professor Namias, as the result of many experiments, advocated the addition of boric acid to the ordinary solution (25 grains per fluid ounce), and there is no doubt that the addition of this substance considerably improves matters also. On the Continent the addition of relatively large proportions of sulphurous acid, as "bisulphite lye," is favored, but as the resulting solution shows a marked decrease in activity, this modification has received but scant support in this country. There is also some alteration of development characteristics consequent on the use of boric acid, and experimenters are still seeking the ideal preservative. The problem is a double-barrelled one, for it by no means follows that a substance which will prevent the oxidation of the sulphite will also preserve the developer. The converse, however, is probably true, and indicates that the greatest effect will be exerted by acid compounds, which are at the same time "reducing" substances. This simply means that they will, more or less, readily take up oxygen. There are

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many such compounds known amongst the organic acids, and although the mechanism of their protective action is not fully known, it can be readily demonstrated that some of them are remarkably effective. Compared with boric acid, for example, glycollic acid is much to be preferred, as the relatively small amount of the latter, which confers stability, ensures minimum disturbance of development characteristics. If one prepares a solution containing 5 per cent. of anhydrous sodium sulphite and glycollic acid in the proportion of 1/20th to 1/10th of the weight of sulphite, it will be found that an amidol developer made up therewith shows such a degree of stability against atmospheric oxidation that it may be kept in an open vessel for several weeks without noticeable discoloration. Whilst there are other acids of analogous constitution which have been found to be similarly effective, they cannot yet be readily obtained commercially. Glycollic acid, on the other hand, is manufactured on the large scale, so that little difficulty should be experienced in obtaining a supply through one or other of the large drug houses. It is not prohibitively expensive, and its use as a preservative of amidol solutions is likely to be more widely recognized, until the manufacturers offer a more stable salt of diamidophenol than the hydrochloride. — R. E. C., *British Journal of Photography*.

Editor's Note

I have used Amidol exclusively for the last ten years for plates—including autochromes, Paget color plates, lantern slides, bromide prints and enlargements. In all these fields I have found it as good as any other developer and for some purposes better. I dissolve a pound of Sodium Sulphite in half a gallon of water, add two ounces of Sodium bisulphite and one ounce of Potassium bromide. This is a stock solution to be diluted from one in three to one in six. The Amidol is added at time of using, according to required contrasts in from three grains to half a grain an ounce of diluted developer.

H. D'ARCY POWER.

Clean Bromides

A great many bromide printers would be surprised if they were told that their prints were dirty; that is to say, that from various causes the whites are not as pure as the paper is capable of yielding. In some cases the dinginess is due to actual light-fog caused by handling rapid papers in an unsafe light. This is pale yellow glass is used in the dark-room lamp. This may be detected by making a print in the ordinary way, masking the border so that no light can affect it while printing, and then proceeding as usual. After fixing and washing, a portion only of the border is swabbed for a minute or so with a weak cyanide and iodine reducer, when any deposit on the untreated parts will immediately become manifest.—B. J. of Photography.

Developing Small Roll Films

We have developed hundreds of small roll film negatives in the following simple manner: The film is attached by a drawing pin at the end to the top of a circular block of wood, about four inches long by about three and a half in diameter, wound spiral fashion round the block and fastened at the other end in the same way, the sensitive side of the film, of course, being outwards. The whole is then placed in an ordinary two-pound stone jam jar, containing the required amount of dilute developer, an old weight being placed upon the block to keep it submerged. When development is complete the film may be attached in the same way to another block of wood and placed in another jar for fixing. It is as well to mark the jars, or two of a different shape may be chosen in order to avoid changing them about, or the film may be fixed in a large dish in the ordinary way. This method has the advantage that only a small quantity of developer is required. If thought necessary, the wood may be rendered waterproof by one of the well-known methods, such as saturating the surface of the wood with paraffin wax.—B. J. of Photography.

THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

The Making of Enlargements

This is written for the novice as I think some of them would like to know just how bromide enlargements are made. Since the advent of the little hand cameras the demand for enlargements has steadily increased, and with the high quality of bromide papers, it is now the rule, rather than the exception, to enlarge from the small negative direct, instead of making large negatives and printing therefrom.

The other day I happened to visit the workroom of G. Archer Lindsay, representative of the Ansco Company, of Binghamton, N. Y. Mr. Lindsay was busy making enlargements for exhibition, on Cyko paper, and it struck me an account of how an expert works might be of interest to some of our readers.

For the benefit of the novice I will explain, that if we take a box that is light tight and on one side of it cut a hole large enough to take our negative, and if we have our camera with its back removed, so supported that we can cover that hole with it, we can, if we place a light in that box, project a view of that negative on the opposite wall or on a board standing perpendicularly before and at right angles to the lens of that camera. The room in which we work has to be darkened somewhat, so that we can see the picture when projected. These conditions are similar to those that exist in a movie theatre, with a difference that the projector in the theatre is supplied with pictures in positive, so that we can watch them understandingly "as they move." In the camera for our enlargements a single negative is used and the image projected is negative also, and in place of the screen we use a piece of bromide paper, which, when exposed and developed, gives us a positive of larger dimensions than our original negative picture.

Mr. Lindsay's camera then was something like this in principle, but of course, it was scientifically built with attachments for convenient working, as a negative holder immediately behind the camera and a ground glass screen to diffuse the light behind the negative, and behind this ground glass there came two condensers to collect the light, and behind that again there was a 1,000 C. P. Mazda nitrogen lamp. Naturally, there had to be provision made for the ventilation of the box to prevent it getting overheated, but you will see the idea starts with a box and a camera affixed to it.

The enlargements were to be made from negatives on film and the simple film holder was made after this fashion. Immediately behind the camera was the negative holder about 8x10 inches. In this was a piece of glass of that size, and on it, was pasted a cut out mask. The size of the cut out in this case was $3\frac{1}{4} \times 5\frac{1}{2}$, to suit post card negatives. Around this opening was pasted on three sides, strips of stout paper, but the paste was confined to about half their width; on the fourth side another strip of paper was fastened down, but only at its ends. Thus we have a sort of slip-in mount, and under these paper strips the film negative was inserted and on top of all a clear piece of glass, the same size as the lower one, which kept the film perfectly flat. The point I want the reader to notice is, no light whatever was permitted to pass except that which was necessary, through the negative itself.

We will now consider how the bromide paper was handled. There was a large sized printing frame used for this; it had the usual piece of clear glass in it, and on top of this glass was placed a mask with the cut out exactly the same size as the enlarged picture was to be. This mask was the full size of the printing frame, as the

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enlarged pictures were to have rather wide margins to them. Now came the sheet of sensitive paper on top of the mask, with its coated side facing the glass, then the back of the frame was put in place and its two brass springs adjusted and we had the bromide paper perfectly flat. Some amateurs are satisfied to pin up their bromide paper by the four corners, forgetting, that if the paper is not absolutely flat, they run a very good chance of faulty definition in parts of their picture. It is a wasted effort to invest in a high class lens and to treat it in that manner.

The closed pressure frame was then placed in position on the board, which is a permanent fixture to the camera stand. This board has to be in a perfectly true, upright position, and that means the four corners of that board must be of equal distance from the center of the lens; it must not on any account, tip over to or from the camera.

The work room was well lighted with a yellow light, though this was several feet away, and near it stood a clock with but one hand. It pointed seconds only. This clock was of the same size as an ordinary alarm clock, and the markings for the seconds were on its outer edge, just where the minutes are usually located, thus the operator could read the dial from across the room.

When the frame was in place, the light turned on, the lens uncapped, I noticed the negative was not what would be called a good one for the purpose. It was perfectly sharp, but its range was too long, and the only way to use it was by dodging. By this I mean some parts of the picture had to be shaded while other portions were permitted to go on printing. This was accomplished in the following way:

The picture was a view with buildings in the foreground showing docks, the rest was water and sky. The middle distance had shipping. The buildings, though full of detail, were very thin; the distance shipping also made a thin spot in the overdense water and the sky was worse than the water.

The exposure of this negative was as follows:

Glancing at the clock to note the time, the operator gave a few seconds' exposure to the whole of the picture, then with a piece of card, he shaded the buildings in the foreground, keeping the card moving a little all the time, to avoid harsh edges. But remember all the rest of the picture was being exposed meanwhile. Then the next thin part of the negative, the shipping, needed attention. As I explained, this was out in the middle distance; it was not practical, therefore, to hold just a piece of card over that shipping in the ordinary way, because either the card or the shadow from one's arm would keep the light from those parts of the picture that should go on printing, but, of course, Mr. Lindsay was prepared for emergencies like this. From its place was produced a strip of glass about two inches wide and fourteen inches long. On the end of this had been pasted a piece of dark paper a little larger than a dollar in size, and this was used to shade the shipping and was also moved about to avoid hard edges. After a while, when the water was judged sufficiently printed, the whole of the picture was shaded with a larger piece of cardboard and the printing of the sky was continued. When that was finished, the whole of the bromide sheet was exposed for a short time with the full light. Mr. Lindsay explained he always gave a finishing exposure in this way; it had an evening up effect, and now this part of the work was done. On reference to the clock it was found the dense portions of the negative had been favored from thirty to fifty times extra exposure.

About six feet from the yellow light stood the developing tray in the sink, and in it about one and a half inches of developer. The enlargement was removed and simply slid under the surface of the developer, and the tray gently rocked. After about half a minute, the image appeared, faintly, but evenly. One part of the picture did not race away from the other part. It was interesting to note this, and gradually the picture built up, and when the blacks were sufficiently black, the grays of the sky and water were just right, and the developing stopped automatically. Then came rinsing, fixing and washing.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

To Members of the I. P. A.

Mr. Beiseman has been sending out some very attractive and interesting albums, well worth seeing.

Any member of the I. P. A. who would like to receive the post card album has only to send to Mr. Beiseman of Hemlock, Ohio, a few cards with the request that he incorporate them in the next circulating album and place their name on the route list.

In this connection remember that while these albums are called post card albums you need not confine yourself to the regular stock photo post card, merely to the standard size of $3\frac{1}{2} \times 5\frac{1}{2}$. With this in mind this will allow a much wider range and better selection of paper to fit a subject and make it a simple matter for members who seldom make prints on post cards to contribute.

You may already have a few 5x7 or larger prints on hand. If these are on double weight paper get out your print trimmer and start to cut. To trim away the largest part of an 8x10 print may take some nerve at first but the results are often so gratifying as to considerably offset any feeling of waste.

To cut a panel out of an 8x10 print made by enlarging from a small negative will accomplish much toward a picture, the size $3\frac{1}{2} \times 5\frac{1}{2}$ is one that you can see all of when you look at it and the angle of view is brought so much nearer natural that the result is bound to become pleasing, perhaps you will find it possible to trim two or even three cards from a single enlargement. A valuable lesson may be learned from some ruthless trimming.

Nearly every camera enthusiast has or should have means of making enlargements, and whole small negatives or some part of them may be enlarged to post card size and the user of bromide paper will by the wide range of grades and surfaces of this paper furnished be able to make

quite a variety of pleasing and out of the ordinary prints. Buff stock fits many subjects well, rough surface is admirable for at least breaking up many an otherwise too flat scene.

While a good border well made sometimes helps a picture, it is generally mostly border and I suggest that the most pleasing cards are generally those that are entirely covered by picture and without any fancy border or even white edge, although the latter is a matter of choice and, carefully made, a white edge or a narrow margin tinted grey may be an improvement.

Don't forget all of you who would like to see the next circulating post card album when it makes its rounds, send some cards to Mr. Beiseman. If you do not use the regular stock sensitized post card, make your prints on double weight paper and trim to $3\frac{1}{2} \times 5\frac{1}{2}$ inches.

A. E. DAVIES,
Secretary.

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

A. E. Davies, General Secretary, 1327 Grove St., Berkeley, Calif.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

John Bieseman, Director Post Card Division, Hemlock, Ohio.

James B. Warner, Director Stereoscopic Division, 413-415 Claus Spreckels Building, San Francisco.

A. E. Davies, Director Lantern Slide Division, 1327 Grove St., Berkeley, Calif.

STATE SECRETARIES

California—A. E. Davies, 1327 Grove St., Berkeley.

Colorado—H. E. High, 1023 Champa St., Denver.

Idaho—Eugene Clifford, 902 9th Ave., Lewiston.

Iowa—Harry B. Nolte, Alcona.

Kansas—H. H. Gill, Hays City.

Louisiana—Samuel F. Lawrence, 1247 Oakland Street, Shreveport.

Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.

Missouri—J. F. Peters, Room 210 Union Station, St. Louis.

New York—Louis R. Murray, 927 Ford Street, Ogdensburg.

Oregon—F. L. Derby, La Fayette.

Texas—Emmett L. Lovett, care Southern Electric Company of Texas, Wichita Falls.

CAMERA CRAFT

ALBUM DIRECTORS

- Alabama—Richard Hines, Jr., Barton Academy Bldg., Mobile.
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- Minnesota—Leonard A. Williams, 622 2nd Avenue South, St. Cloud.
- Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.
- Missouri—Wharton Schooler, R. F. D. No. 2, Eolia.
- New York—Charles F. Rice, P. O. Box 517, Mararoneck.
- North Dakota—Jas. A. Van Kleeck, 619 Second Ave., North Fargo.
- Ohio—J. H. Winchell, R. F. D. No. 2 Painesville.
- Pennsylvania—L. A. Sneary, 2822 Espy Ave., Pittsburg.
- South Dakota—C. B. Bolles, L. B. 351, Aberdeen.
- Texas—J. B. Oheim, P. O. Drawer M, Henrietta.
- Utah—John C. Swenson, A. B., Provo.
- West Virginia—William E. Monroe, Box 298, Point Pleasant.
- NEW MEMBERS**
- 4959—Glenn Stewart, 56½ W. Locust Street, Dubuque, Iowa.
3¼x5½, developing paper, of newspaper work such as parades, wrecks, etc., also landscapes and river views; for street scenes, also views. Prints only. Class 1.
- 4960—Robert A. Fuller, Box 105, Tottenville, Staten Island, N. Y.
3¼x4¼, developing papers, of landscapes and views; for the same. Class 1.
- 4961—Mrs. M. L. Taylor, 670 Calder Street, Harrisburg, Pa.
Class 2.
- George P. Schick, 692 Fifth Street, Aurora, Ill.
2½x4¼, developing papers, of miscellaneous subjects; for anything bazarre or interesting. Class 1.
- 4963—M. J. Pierce, Jackson, Cal.
Any size, various papers, of general subjects; for anything of general interest. Class 1.
- 4964—Leo MacDonough, 1103 Detroit Ave., Toledo, Ohio.
Class 3.
- 4965—F. M. Beckett, 101 Cinnabar Street, San Jose, Cal.
Class 2.
- 4966—M. Taketomi, Care Yokohama Specie Bank, Shanghai, China.
3¼x4¼, various papers, of landscapes, portraits, etc.; for the same. Class 1.
- 4967—M. D. Wilson, Bartow, Fla.
3¼x5½ and smaller, developing papers, of child studies, Jersey cattle, farm scenes, and landscapes; for child studies, animal photos and figure studies. Class 1.
- 4968—Herbert L. Steding, 217 Calhoun Street, Cincinnati, Ohio.
Class 3.
- RENEWALS**
- 170—Thos. J. Ronald, Marysville, Kans.
Up to 7x11 and 8x10, various papers, of landscapes, portraits, interiors, exteriors. I try to get every thing balanced as well as possible for the same and studies in the nude, draped or undraped. I am also interested in home portraiture. I correspond in Esperanto also. Class 1.
- 2095—G. G. Stortz, 2424 Germantown Ave., Philadelphia, Pa.
3¼x5½, prints and post cards, various papers, of landscapes and anything pictorially interesting, except portraits of people unless they make a group or person to fit in view. Class 1.
- 4726—B. C. Eddy, 840 51st Street, Oakland, Cal.
5x7 and smaller, on developing paper, of general and floral subjects; for subjects of special interest, historical and floral. Good work only sent and received. Class 1.
- 4761—W. S. Turner, 3006 Landes St., Pittsburgh, Pennsylvania.
2¼x3¼, various papers, of landscapes, marine, old mills, genre, etc.; for the same. Glossy prints preferred. Only best of work desired. Class 1.
- 4767—Hartley L. Emerson, 315 Pool Street, Biddeford, Main.
3¼x4¼ to 5x7, various papers, of views and general subjects, for the same. Class 1.
- CHANGE OF ADDRESS**
- 4521—Frank B. Taylor, 346 Central Ave., West Hoboken, N. J. (Was Saranac Lake, N. Y.)



NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

Reported by Wm. Wolff

Bob. Robertson, formerly with Howland & Dewey, Los Angeles, then with Robey-French Company, Boston, and now with Eastman Kodak Company of Rochester, still maintains the Western Girls have them all beat. Wants to be remembered to all.

Marks & Fuller of Rochester, N. Y., have one of the prettiest Kodak stores the writer has seen. Such a big improvement on the old place in State Street.

Had lunch with H. M. Fowler of Fowler & Slater, Cleveland, on June 9th. Took me to the Kiwanas Club luncheon. Some live bunch. Mr. Fowler operates four stores in Cleveland.

Again had the pleasure of meeting Mr. J. F. Adams, of Buffalo. Mr. Adams has been in the photo business since 1872 and I want to state right here he doesn't look a day over 40.

Mr. Greiner has charge of Kodak Dept. in The Dodd Company store, Cleveland, and has a very up-to-date department. Wm. Taylor, formerly with Hirsch & Kaye, S. F., is with the same concern.

Mr. Gross of Gross Photo Supply Co., Toledo, Ohio, took me through his mount factory and will say it is well worth mentioning.

Geo. L. Kohne, Toledo, Ohio, still doing business at the old stand, 602 Summit Street.

Met Mr. Fred Blome, of Blome Bros., Detroit. They have moved from Woodward Avenue to their new and up-to-date place on Grand River and Cass Streets.

H. C. Henry takes care of the Kodak departments of the Cunningham Drug Company, Toledo. Each of their four stores has up-to-date departments.

While in Chicago, visited the Kodak department in Marshall Field, known to be the finest in the U. S. Miss Donaldson,

who is in charge, is to be complimented in the way the department is kept. She is a very charming young lady.

Also in Chicago, called on Sweet, Wallach & Company, the largest professional house there. Mr. Campbell has charge of the ordering.

Mr. Chas. Bass, of Bass Camera Company, Chicago, also live wire, took the writer for a drive along Lake Michigan.

While at Burke & James, Inc., Chicago, again had pleasure of meeting the heads of the house, as well as Mr. Mugford and others. Mr. Wolver, their coast representative, was also among those present.

While in Milwaukee met Mr. Austin of the Henry Reimers Company, and Walter Wittersteller, of Milwaukee Photo Supply Company, an Eastman Kodak house.

Zimmerman Bros., St. Paul's Eastman House, have a very pretty store. Mr. Rodgers in charge of buying end.

Co-operative Photo Supply Company of St. Paul, across the street from Zimmerman, also have a big stock of material.

One of the best Eastman Houses called on was O. H. Peck & Company, Minneapolis. Met Mr. Pilon there. No, he's not a relative of Pilon of Albany Card Company.

Condensers

Any downward trend of prices is a matter of interest to the purchasing public no matter in what line of goods. Photographers, both amateur and professional, will be interested in the announcement of the J. H. B. Donaldson Enterprises, 160 West 45th Street, New York City, to be found on another page of our advertising section.

The Donaldson Enterprises are offering light condensers made in the highest grade of French optical glass in all diameters and foci, mounted or unmounted at 50% less than prevailing market prices.

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The condenser has always been looked upon as the very best means of concentrating light on our negatives both in the enlarging lantern or for illuminating same when copying. What has probably stood in the way of their universal adoption has been the matter of cost. We believe, therefore, this little item of news will be acceptable to a large number of photographers and they should, if in need of condensers to improve present methods of illumination, or, if installing a new enlarging outfit, address their inquiries to Dept. M of this firm, at the above address.

Kodakery for May

This little monthly magazine is ever welcome to the amateur and novice alike. Something useful can be gleaned from its pages in every issue, and as to its illustrations, one can not help admiring their excellence and variety.

The May number now before us, starts off with "Chumming With the Catbirds;" a pleasant chatty article and illustrated with no less than thirteen photographic reproductions of these feathered creatures and their young. These nature studies have a wonderful appeal to most humans, be they young or old, and nature photography offers such an inviting field to the amateur that it is not to be wondered at that the number of enthusiasts are steadily increasing.

There is no doubt the very handy equipment, the camera, now supplied by the enterprising manufacturers have greatly facilitated this kind of work. We notice that most workers who excel in this line of study lean strongly to the Graflex camera as being the one most generally useful.

Another item this magazine gives us is, "Sepia Prints From Negatives of Medium and Excessive Contrast," will be most helpful to the beginner. It shows how to overcome a difficulty, and on the following page will be found "Prints From Flat Negatives;" a most appropriate article to follow the one on sepia.

Any novice reading these two articles will understand why all prints will not make good sepias, and why some black prints will look better in sepia.



A New Type of Shutter

"Next to the lens in importance comes the shutter."

Readers will be interested to know the Wollensak Optical Company of Rochester, New York, who have already provided us with lenses of the highest quality, have now perfected a line of shutters that incorporates a new and fundamentally different mechanical construction.

In the new shutters the retarding device which governs the shutter speeds, has been radically changed. We draw special attention to the elimination of the uncertainty of air pumps and likewise the complexity of gears. The results achieved are extreme accuracy of automatic speeds and simplicity of construction, with no involved mechanism to get out of order.

These shutters are something entirely new, basically different and will be an invaluable adjunct to any make of lens.

The names these shutters will be known by are, The BetaX which replaces the Auto, the GammaX replaces the Victo and the DeltaX replaces the Ultro, having, however, a greater variety of speeds.

The "X" at the end of each word signifies "Xact Exposure" and that accuracy which is everything in shutters is the one thing coupled with simplicity, which will win your admiration for these instruments.

Portland, Maine

The following is the list of officers of the Portland Camera Club, for the ensuing year:

President—E. Roy Munroe.

Vice President—Roger Paul Jordan.

Secretary Treasurer—C. M. Jaquith.

Print Director—J. Ludger Rainville.

Lantern Slide Director—Wallace C. Skillin.

Membership Committee — Charles L. Hutchinson, F. D. Sampson and Harvard L. Armstrong.

NOTES AND COMMENT

Snow White

This white pigment has qualities peculiar to itself, and the professional card writers have long known its good points.

When the simple directions are followed, you can take a clean pen, dip it in this white and write with it upon the blackest black paper or card and your letters will show brilliantly; give it a little time to dry and you will notice the white writing will not rub off.

Is this not just what you want for the black pages of your photo albums? Pictures look much nicer with neat titles below them.

If in need of more information, J. W. Johnson, Dept. C. C., New Arts Bldg., Rochester, N. Y., will give it.



The Paxta Press Camera

It is with a feeling of pleasure that we draw the photographer's attention to the "Paxta Press," a product of San Francisco. This thoroughly practical camera is built especially for the press photographer and is the outcome of long experience on the part of a newspaper man, with the aid of a practical camera manufacturer.

The Paxta Press as you will see by the illustration is an-honest-to-goodness box; there are no fancy trimmings to it; it is built for business, and down right rough business at that; for it must stand up and deliver the goods at all times. One has to handle this instrument to appreciate the many good points it possesses, but we will refer to the cut and that will give some idea of its workings.

The camera itself is very strongly built; it needs no bellows, that is dispensed with

by a focusing mount, which insures perfect rigidity. The focus is controlled by the knob, shown on the right hand side, with its accompanying dial to set distances. Further back is a little door, (here shown open, with the plate holder projecting), this door provides an extra protection against light, when the holder is pushed in place and the slide withdrawn—ready. At the back of the camera there is another door that gives access to the focusing screen, which may be needed for special purposes.

The front of the camera is hinged where the cable release projects; this enables one to use shutters the full width of the box, and the shutter is always protected against accident and exposure by the body of the camera. As will be seen, the real front acts as a lens shade and with its two leather side wings does this perfectly. This is a great aid in flash light work, and when not in use it closes down over the lens, protecting it from injury. This shade springs upward into position automatically, the moment a catch is released.

On the top of the camera is shown the wire finder the full size of the plate (which in this model is 4x5 inches) and also its accompanying peep-sight at the back of the instrument. This sight and frame fold over the top and are hinged with a double action hinge to avoid damage.

What to our mind is the most valuable feature of this outfit is a sort of dove-tailed track most rigidly built within the body of the box. This controls the lens movement, the lens board remains rigid, and the lens slides through it in a perfectly light-tight jacket. This gives the lens an extra support, and by this method the lens' axis remains absolutely at right angles with the picture plane; the experienced photographer will appreciate this point. And, lastly, with all this rigidity and strength the camera is so well constructed that it remains wonderfully light.

Our account of the "Paxta Press" would not be complete if we failed to state that the idea of this practical outfit originated with Mr. Crow, official photographer for the San Francisco Examiner. Readers of the article by Mr. Crow on flash light photography of moving objects will agree he

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is an expert and qualified to say just how a "press" camera should be built. The actual construction was undertaken by the Shannon Camera Works, 5 Kearny Street, San Francisco, and they are prepared to undertake orders for cameras of this and other types. Readers will find the Shannon advertisement on another page.

R. W. K. Photo-Printer

This all metal-photo-printer is "Sold to Satisfy You"; it is a new thing, yet there are over 1200 now in use.

Any amateur looking for a reliable printing machine should send for a prospectus and familiarize himself with the good points of this photo-printer. The price is \$8.50 and it would not take long to get one's money back by doing one's own printing quickly, neatly and well.

What do you spend in six months to have the prints made at your drug store and are they as good as you expected them to be? Probably not. Figure out the cost and the quality and you will be surprised—what is the answer?

The R. W. K. Photo-Printer will make perfect prints from negatives $6\frac{1}{2} \times 8\frac{1}{2}$ inches or smaller and this size will also suit most professionals. It has many advantages and is very compact. Its compensating spring hinge for the pressure plate automatically accommodates itself to the varying thickness of the negatives, masks, etc., and provides equal pressure, assuring uniform contact.

The fact that the printing surface is flush with the upper part of the printing box enables you to print from portions of large negatives. Also roll films can be handled to advantage.

Contact is made by lowering the pressure plate, which cuts out the red light and switches on the white, this action is reversed when the pressure plate is lifted.

The pressure plate is made of plate glass and is mounted in a steel frame that is cut out on the back, permitting the operator to see through the paper and negative and he is able to insert a card through a slot on the right side of the box to vignette, or shade certain thin portions of the negative much in the same way that en-

largers constantly have recourse to and the eye can follow the movement through the transparent pressure back.

Two incandescent lamps are supplied; one an 8 c. p. ruby bulb, the other a 40 Watt 115 Volt lamp, which gives sufficient light to print from ordinary negatives, in two to five seconds. The light is well diffused by a sheet of ground glass, four inches below printing surface. The flexible electric cord, plug to fit standard sockets, in short, everything is complete and comes with the machine.

Address your inquiries to the Manufacturer R. W. Kittredge Company, 812 W. Superior St., Chicago, Ill. See advertisement on another page.

WITH THE CAMERA

Notes From the Illinois College of Photography, and the Bissell College of Photo-Engraving, Effingham, Ill.

It is quite a distance from Bombay, India, to Effingham, Illinois, "The Heart of the United States," yet Mr. N. G. Devare of the former city has traveled the many miles to enroll in the I. C. P. Needless to say, he likes this country.

Carroll S. Simcoe was a member of the Engraving Class of 1920. He now informs us he is successfully conducting an engraving business of his own. He has our best wishes for continued success.

A young lady retoucher recently arrived at the home of Mr. and Mrs. Victor D. Cylkowski in Chicago. Mr. Cylkowski, who will be remembered as an I. C. P. student, is now connected with one of the largest studios in the "Windy City".

The students a short time ago, enjoyed a talk given at Assembly by Reginald Hanscomb, an I. C. P. alumnus. Mr. Hanscomb is now representing the Defender Photo Supply Co.

We are informed that Mr. and Mrs. L. C. Oakes, who completed their courses here several months ago, have opened a studio in Oakley, Kansas, and already have a promising business.

The Faculty and quite a number of the students will attend the Annual Convention of the Photographers' Association of America, which will be held in Buffalo, New York, July 18th to 23rd.

CAMERA CRAFT



SAN FRANCISCO
CALIFORNIA

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Expirations—Subscriptions to Camera Craft are discontinued on date of expiration. The date on the address label on the wrapper shows the time to which each subscriber has paid. Thus: Jan. 21, means that the subscription expires with the number dated January, 1921. **Renewing**—In renewing a subscription, do not fail to say that it is a renewal, giving name and address just as now on the address label. **New Address**—In notifying us of a change of address, give both the old and new address. Should you miss a copy through change of address, advise us of the fact, and another will be gladly sent. **Dealers**—All photographic supply dealers and new dealers are authorized to receipt for subscriptions in our name.

Subscription Price, \$1.00 Canada, \$1.25 Foreign, \$1.50

Camera Craft Publishing Company, Claus Spreckels Building,
San Francisco, California.

FOREIGN AGENTS:

Australia	}		Harringtons, Ltd., Sydney
England		Francis Collas, 3 Wine Office Court, Fleet Street, London, E. C.	Kodak, Australasia, Ltd., Sydney
Malta			Do Agius Catanin, 41, Sda. Reale, Valletta
New Zealand	}	Richard Hill, Matlock House, Devonport, Auckland	
			Waterworths Limited, 53 Queen St., Auckland
Philippine Islands		Waterworths Limited, 286 Lambton Quay, Wellington	
Japan			F. O. Roberts, Manila
China			K. Kimbel, Yokohama
			Squires, Bingham & Co, Shanghai

August Camera Bargains

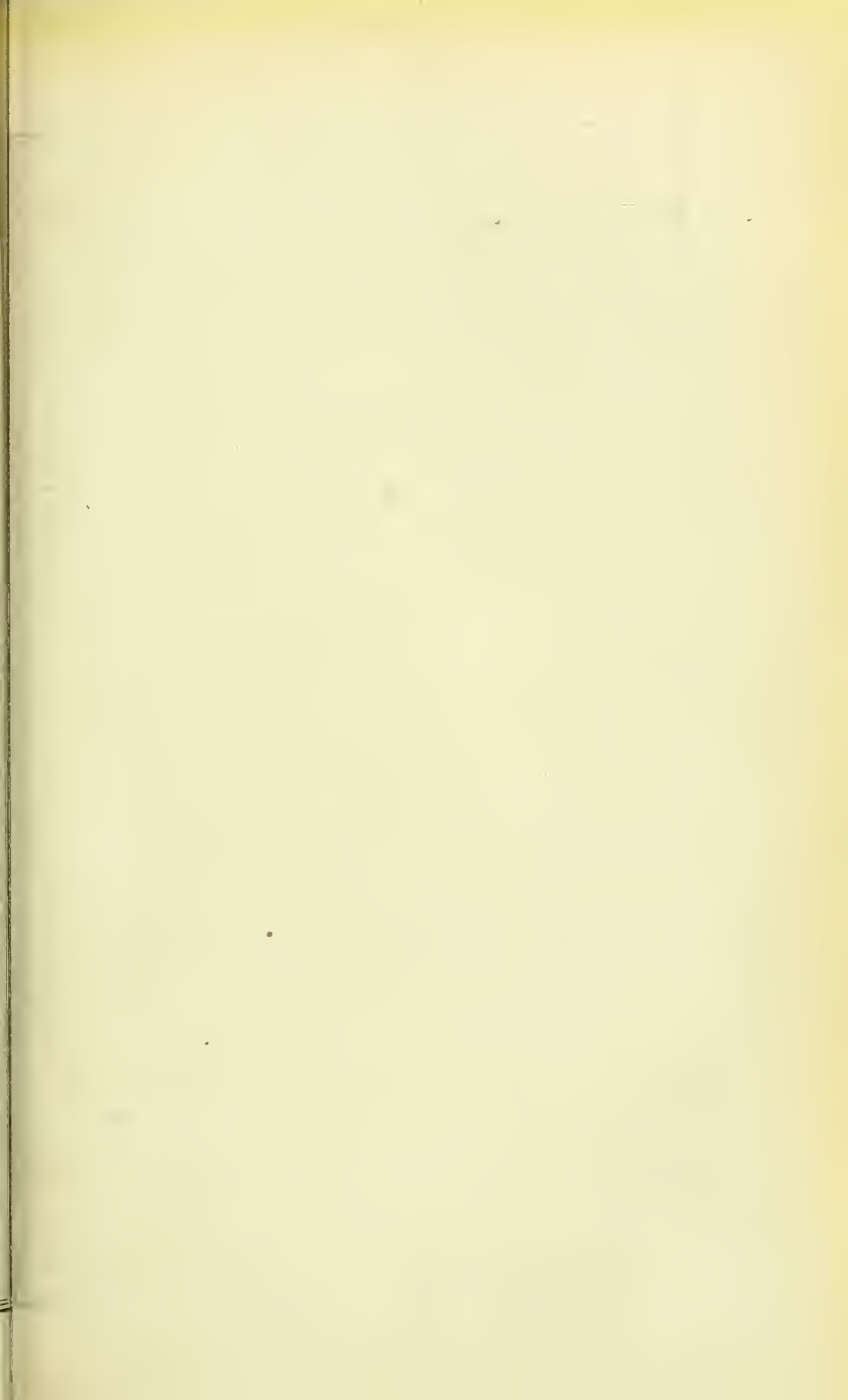
1 $\frac{5}{8}$ x2 $\frac{1}{2}$ Vest Pocket Kodak (single lens). List price, \$8.00.....	Special	\$5.25
1 $\frac{5}{8}$ x2 $\frac{1}{2}$ Vest Pocket Kodak, with f-7.7 lens. List Price, \$15.00	Now	10.25
1 $\frac{5}{8}$ x2 $\frac{1}{2}$ O Vest Pocket Ansco Camera, with Ansco f-6.3 lens. List Price, \$25.00	Now	18.75
1 $\frac{5}{8}$ x2 $\frac{1}{2}$ O Graphic Camera, fitted with Zeiss Kodak lens, f-6.3. List price, \$64.00.....	Now	47.50
1 $\frac{5}{8}$ x2 $\frac{1}{2}$ Ica Atom Camera, Hekla lens, including 3 single plate holders.....	Special	15.00
2 $\frac{1}{4}$ x2 $\frac{1}{4}$ Carbine Camera, fitted with Beck Mutar lens, f4.9, in Compound shutter.....	Special	40.00
2 $\frac{1}{4}$ x2 $\frac{1}{4}$ Carbine Camera, fitted with Carl Zeiss Triotor lens, f-6.3.....	Special	55.00
2 $\frac{1}{4}$ x3 $\frac{1}{4}$ No. 1 Jr Kodak, with f-7.7 lens. List price, \$23.00	Now	17.75
2 $\frac{1}{4}$ x3 $\frac{1}{4}$ No. 2 V. P. Ansco Camera, with Ansco Anastigmat lens, f-6.3. List Price, \$27.50.....	Now	22.50
2 $\frac{1}{4}$ x3 $\frac{1}{4}$ No. 1 Sagamore Camera, with Wollensak lens, f-6.3 and Optimo shutter. List price, \$48.00	Now	37.50
2 $\frac{1}{2}$ x4 $\frac{1}{4}$ 1A Ansco Camera, with R. R. lens. List price, \$23.00	Now	16.75
2 $\frac{1}{2}$ x4 $\frac{1}{4}$ 1A Graflex Camera, with Zeiss Kodak lens, f-6.3. List price, \$132.75	Now	97.50
3 $\frac{1}{4}$ x4 $\frac{1}{4}$ No. 3 F. P. Kodak, with f-7.7 lens. List price, \$28.00	Now	22.75
3 $\frac{1}{4}$ x4 $\frac{1}{4}$ Klimax Camera, with Aldis f-7.7 lens, including carrying case, and film pack adapter.....	Now	35.00
3 $\frac{1}{4}$ x4 $\frac{1}{4}$ Filmplate Camera, fitted with Rodenstock Euryrhar lens, f-6.8.....	Special	47.50
9x12cm. Goerz Ango Camera, fitted with Goerz Celor lens, including case, 3 plate holders and one film pack adapter. List price, \$125.00	Special	87.50
2 $\frac{7}{8}$ x4 $\frac{7}{8}$ No. 2C Jr Kodak, with f-7.7 lens. List price, \$25.00	Now	18.75
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Premo No. 8 Camera, with R. R. lens. List price, \$25.00	Now	18.75
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Filmplate Camera, with R. R. lens. List price, \$26.50	Now	18.75
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Kodak, with R. R. lens. List price, \$27.00	Now	18.50
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Kodak, with f-7.7 lens. List price, \$32.00	Now	25.25
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Filmplate Spl Camera, with Collinear lens, f-6.8 in Compound shutter	Special	52.50
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Graflex Camera (no lens). List price, \$120.00.....	Now	82.50
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Graflex Camera, with Ic Tessar lens, f-4.5. List price, \$200.00.....	Now	145.00
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Compact Graflex Camera (no lens). List price, \$120.00.....	Now	82.50
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ 3A Compact Graflex Camera, with Ic Tessar lens, f-4.5. List price, \$210.00.....	Now	152.50
3 $\frac{1}{4}$ x5 $\frac{1}{2}$ —4x5 Sanderson Camera, with Goerz Dagor lens, f-6.8, in Ilex shutter, including carrying case, 2 adapters and 9 plate holders.....	Special	145.00
4x5 Auto Graflex Camera, fitted with Cooke lens, f-4.5	Special	125.00
4x5 R. B. Cycle Graphic Camera, fitted with Zeiss Kodak lens, f-6.3, including case. Almost new. List price, \$140.00	Special	82.50
4x5 R. B. Cycle Graphic Camera, fitted with No. 10 Zeiss Protar lens, f-6.3, in Ilex Acme shutter, including case. List price, \$220.00	Now	175.00
4 $\frac{1}{4}$ x6 $\frac{1}{2}$ 4A Carbine Film Camera, R. R. lens	Special	16.75
4 $\frac{1}{4}$ x6 $\frac{1}{2}$ 4A Folding Pocket Kodak, with R. R. lens. List price, \$35.00	Now	22.50
4 $\frac{1}{4}$ x6 $\frac{1}{2}$ 4A Conley Plate Camera, with R. R. lens, including 4 plate holders.....	Special	32.50
5x7 Filmplate Camera, with R. R. lens. List price, \$35.00	Now	22.50
5x7 Premo No. 9, with R. R. lens. List price, \$55.00	Now	40.00
5x7 Auto Graflex (no lens), old style, including magazine plate holder	Special	65.00
5x7 Compact Graflex Camera, fitted with Goerz Dagor lens, f-6.8. List price, \$234.00.....	Now	195.00
5x7 Press Graflex, fitted with Ic Tessar lens, f-4.5. List price, \$300.00	Now	185.00
5x7 Century View Camera (no lens), including case. List price, \$52.70	Now	32.50
45x107mm. Ernemann Stereo Reflex Camera, fitted with Goerz Dagor lens	Special	125.00
3 $\frac{1}{2}$ x7 Brownie Stereo Camera (single lens).	Special	12.50
No. 5 Cirkut Camera (complete). List price, \$150.00	Now	105.00
14x17 Skyscraper Camera (no lens)	Special	110.00

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"THE OLD OAK"
By OTTO C. SCHULTE

CAMERA



CRAFT

A PHOTOGRAPHIC MONTHLY**H. D'ARCY POWER, M. D.**
Editor-in-Chief**EDGAR FELLOES,**
Associate Editor

CLAUS SPRECKELS BLDG.

SAN FRANCISCO

CALIFORNIA

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No. 6

Soft Focus Lenses

By H. D'Arcy Power, M. D.



With Illustrations by the Author

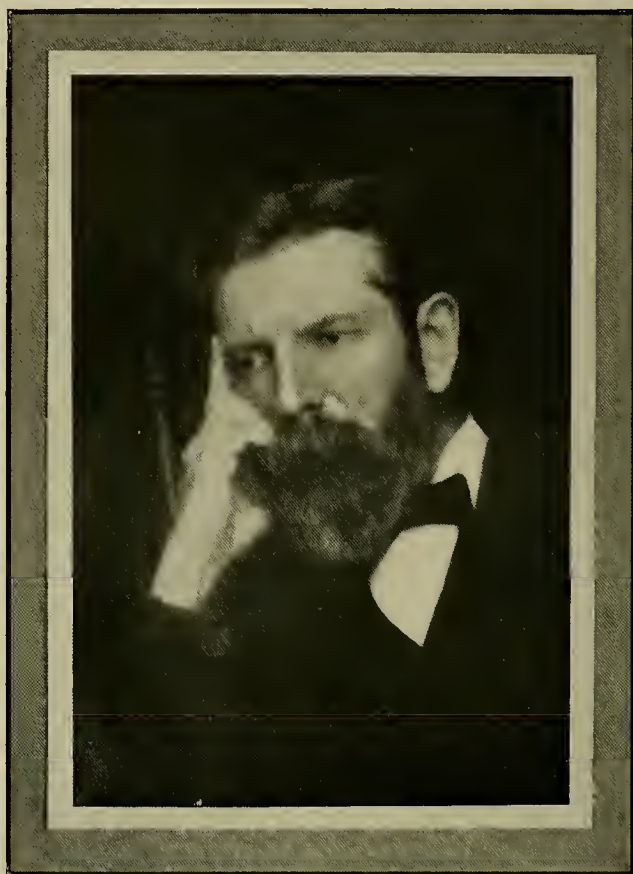
The evolution of the popularity of the soft focus lens is not only an example of the improvement in artistic taste, but a return to the normal way of seeing things. When the lens picture first greeted the public it came as a wonder. The photograph recalled everything, the child's dimples and grandmother's wrinkles, the stamens in the flower and the spider's web, nay with the hand glass you might perchance detect the beetle in the bud. Here were pictures such as no artist had ever made, or ever could. No wonder we had an enthusiastic world. True as a photograph became an axiom, and yet artists did not like photographs, a few, such as Hill, tried the camera for a while, but soon went back to the pencil and paint brush. All kinds of reasons were given, jealousy said some; false values, a lack of selection, confusing distribution of lights, and other faults replied the artists. Things the laity did not understand.

Presently came the hand camera and every body made photographs, made them with the ambition of getting them sharp and clear, so that they could see everything that they knew was in sight of the camera. With F-64 and ferrotyped solio they often did. The greater their success, the less use the artists had for the process. Why? Because the lens picture is one that no eye has ever seen.

A good lens sees everything at once and equally well, the human eye at a given time sees only the object to which its attention is directed, all else is dimly apprehended with increasing blurring as the center of interest is

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left. The eye may change its position and retain a memory picture of what it just observed, but the object of interest will always dominate the rest because it is most looked at and best remembered. This fact a good artist



MADE WITH PINHOLE NO. 3, EXPOSURE, ONE MINUTE

unconsciously embodies in his picture, but the lens has no preferences, it gives all, and owing to the small size of photographs the eye cannot exclude the uninteresting, from the field of vision. The artist whose training leads him to seek for the true appearance of things, naturally rejects an image he never sees in nature. With the every day man it is different, his ideas of what things look like is made up of what he knows they are. He is sure that a tree consists of a trunk, branches and leaves, but he does not reflect that he can not see a tree and every one of the leaves at the same time. If he obtains a photograph that does this very thing (because the small size of both images can come within the focus of the eye) he accepts it, inasmuch as it fulfills his idea of truth. The every day man is interested in facts, the more facts he finds the greater his appreciation. So he admires

SOFT FOCUS LENSES



EXAMPLES OF NO. 3 PINHOLE PORTRAITS

the pictures of Claude Lorrain stuffed with figures and architecture, the photograph, that he can examine with a hand glass and find something otherwise invisible.

Many painters in the early days of art were obsessed with the same idea. That is long past; more and more the aim is to give what is actually seen, leaving it to the beholder to make his own interpretation of the appearance. It took many centuries for the professional artist to reach this point, now the mass of the public are following the same road, they reach out for pictures that shall give pleasure rather than information. In the case of photography there are many ways to this end, one of which is to avoid an unnatural definition. The ideal desired is to give a picture as the eye sees it. In the nature of things it is an impossibility; consider the eye viewing a landscape: It is apprehended through a lens of short focus and very limited field. With great rapidity its different objects and masses are focused, examined in turn, attention is evoked by some, others never enter into consciousness, presently a visual concept is formed in which the objects that have stimulated the attention most are dominant. Usually one particular mass or color makes the greatest impression and holds the optical focus, around it all other things fade away with only a subconscious memory of their existence. As different observers will probably

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have their attention fixed by different objects in the same field of view, the mental picture will be correspondingly different. An artist using paint will seek to reproduce his impression with such success as his skill permits and within limits he may partially succeed. He does not paint what his eye has not noticed, and he can hardly help giving extra prominence to the things that have mostly impressed him. By enhanced color contrast, chiaroscuro, or even departure from strict perspective drawing, this is easily attained. How far can the user of the lens follow in his footsteps?

In this article we will confine our attention to one means only, namely modification of the image in order to secure concentration of attention on the subject of the picture. This means, subordination of the unimportant. Where the conditions permit of it, selection of view point will attain much, but more can be effected by the character of the photographic image. The problem is not easy. It is to see the main object clearly even sharply, and the rest according to their lesser values. The definition of the main object is easily attained by focusing on it, but most pictures contain many planes and to get any resemblance to natural appearances they must be shown with reasonable definition, that means stopping down, which in its turn means the excessive sharpness of all objects; the curse of most photographs.

There are three ways by which an approximation to a solution may be obtained. They are, first, coarse focusing; second, the use of a pinhole; third, using a lens that is uncorrected, that is, possesses naturally defective definition.

The first method was much in use some ten or more years ago. To be effective it requires too much blurring of the objects of secondary interest. With a few subjects it gives pleasant results. In a general way it gives not only softening of texture but blurring of outlines, and this is fatal.

The use of a pinhole to form the image is another matter. The definition of a pinhole picture is determined by the size of the hole employed. A number 12 needle hole gives a circle of confusion of $1/100$ of an inch, which is what is demanded of a lens, but the exposure time is prohibitive; a number ten needle hole $1/50$ of an inch, gives a definition answering all requirements of landscape and portraiture. The picture made in this manner has unique character, all objects are in focus from a few inches to infinity. They are equally in focus. The drawing in absolute perspective. The angle of view is determined by the size of the plate. The definition (with No. 10 p. h. No. 3 Power-Watkins System) is clear but soft, much as the eye sees it. These are great advantages and those who have learned to use a pinhole rarely discard it; but there are grave disadvantages. The exposure time is about sixty times that of a lens F-8 and the equality of the definition through all planes forbids all selective focusing. In landscape this is usually an advantage, but in many cases it is the loss of a means of accent.

The third method, the use of an uncorrected lens, is due Major Puyo of Paris, who some fifteen years ago advocated the employment of spectacle lenses, and induced a French firm to make them of dimensions not used

SOFT FOCUS LENSES



MADE WITH KALOSAT, SERIES 1, F-4.5

by the oculist. A spectacle lens is not corrected for spherical aberration, astigmatism, coma, or chromatic aberration. The meaning of which is that besides the main image various secondary images are formed that overlap the former and according to the amount, soften or blur the image formed on the negative. Now the amount and position of this blurring can be controlled in various ways and can even be relegated to the center or periphery of the visual field, or, by the use of very small stops, practically eliminated. The success of the French lenses, led the well known lens makers to introduce lenses of this type, until the soft focus lens is more and more displacing the anastigmat for art, as against scientific purposes.

The last lens of this type to enter the field is the Kalosa, the outcome of a communication contributed to Camera Craft by the writer of this article, in November, 1919. In the search for a lens of great rapidity to take instantaneous photographs in room lighting, the writer employed a quartz spectacle lens. The reasons for the choice being that as there are only two surfaces as against eight or sixteen in anastigmats, the loss of light by reflection is reduced to a minimum, and as quartz or oxide of silicon passes the highly actinic ultra violet rays, their action could be counted on to help produce the image, lastly, as the refractive index of the silica is only one-tenth that of lens glass a focal correction is not necessary.

The experiments were made with a one and one-fourth-inch meniscus lens of five-inch focus concave surface towards the field, working aperture

CAMERA CRAFT

being thus about F-4. The results were most satisfactory and portraits taken eight feet from the window of a living room at one-sixteenth of a second were excellent in definition and permitted of enlargement from $3\frac{1}{4} \times 4\frac{1}{4}$ to 14×17 without loss of quality.

At that time, some seven years ago, a lens competition exhibit was being hung on the walls of the California Camera Club, and the writer hung these enlargements with the caption, "It's all in the lens, price 50 cents," without suffering from the comparison with the product of well known lens makers. Shortly after, trying it out on landscape the lens was lost, and the attempt to replace it by another pebble lens, that is quartz lens, resulted in failures owing to imperfections in the natural rock crystal from which they are made.

This led to the discontinuance of pebble lenses, and nothing further was done until the writer learned rock crystal synthetically made, and therefore flawless, was used for lenses in the transmission of light for medical purposes. A request to make a five-inch lens from the makers was responded to, and the results obtained by its use were given to the photographic world in the article in Camera Craft two years ago. The result was, an immediate interest both in the U. S. and abroad that finally caused the manufacture of the Kalosat lens. We are receiving many inquiries in respect to this lens and a few words may cover the same.

It is made in two series, one working at F-4, the other at F-6.5 but the rapidity of the lens is such, that allowance must be made for it making exposures by meter. Experiments with the F-6.5 lens in landscape work yield good marginal definition and an unexpected flatness of field. Single lenses of the meniscus type show inward or outward distortion of straight lines near the margin of the picture, but this is practically eliminated by the forward position of the diaphragm, and buildings show no distortion.

The writer devised this lens for rapid action which it has, but the makers especially market it as a soft focus lens, and it is being judged largely from this standpoint, and this calls for some explanation and warning. The softness in such lenses is due to the overlapping of the central image by marginal images of slight intensity, if the lens is stopped down too much the latter are cut out and the definition becomes proportionately sharp, furthermore, with such lenses the focusing must be done after the diaphragm has been selected, it varies with the aperture. Failure to observe these rules, will result in failures for which the lens is in no way to blame. It has been stated that in the case of crystal lenses the focus of the actinic and visual rays so nearly coincide that no correction by drawing back the lens is needed, but they do not completely come together, and this adds to the softness of the image. If the user rack the lens back 1-400th of its focal length he will lose this diffusion, therefore, when using the lens for softness, be careful that the lens is in front rather than behind its visual focus. Lastly, the distribution of the area of softness in this type of lens,

SOFT FOCUS LENSES



MADE WITH KALOSAT SERIES 2, F-6.3.

depends on the relation of the curvature of the lens to the plate and field. If the convex side of the lens is towards the plate the diffusion is evenly distributed and no area is critically sharp. This is usually the right position for general use. If the lens be reversed, we obtain sharp definition in the center and rapid shading off into blurring at the edge. Such an arrangement may be an advantage in portraiture.

These warnings are necessary, as only recently we received a letter from a gentleman, presumably of experience in photography, stating that "he did not think much of the Kalosat as a soft focus lens in comparison with the pinhole," oblivious of the complete difference, both in nature and field of usefulness of these instruments. My own experience with crystal lenses enables me to say, that they will give excellent results in all fields, except the purely technical and in copying. That pictures taken with them are much closer to what the eye observes, than those of the older type. That the Kalosat is the most rapid lens made, par excellence a portrait lens, but reliable in landscape work.

The accompanying illustrations are offered in support of these statements.

Foreshortening is one of the most difficult studies in the art of design, and constitutes the excellence of the master. Any object is foreshortened when its ends are presented to the eye instead of the side or full length.—Platt.



Back to Normal

By Jas. H. Smith



This is a hackneyed phrase which is somewhat overworked in these latter days of changing conditions, of unrest, and to a certain extent of labor and business depression, throughout the country.

My observation, however, does not indicate that the phrase has been used in connection with the tendency, which I regret to observe is becoming quite prevalent, of ignoring the old system of lighting the subjects for portrait work in the studio from one broad general source, and which will reproduce the features of patrons as they are almost invariably seen in their homes, and in the varied walks of life, and adopting instead, more striking and unusual effects.

It is to the great credit of our best portrait photographers that they have not been swept off their feet by the fad now so prevalent for "something different" and for "fancy lightings," etc. I have now in mind an ex-president of the P. A. of A., as well as others who refuse to inflict upon their patrons, those inferior abominations of lighting, such as are never seen in real life, but which others offer as "something new," "the latest style in lighting," and which some patrons will accept rather than have it inferred that their photos are not up-to-date, even though the likeness is inferior to those of the plain lighting.

In advertising his wares, a Kansas City dealer, before the late convention, mentions "everything to satisfy the craze for fancy lighting." Whether they realize it or not, they were right in calling it a "craze," and such a craze must soon pass because of a lack of merit.

It is a good thing to introduce a change in your business if it has merit, or is an improvement upon the old. You would make that the only condition of changing a piece of apparatus, then why not apply the same test in lighting your subjects? Why should any photographer use a "spotlight" for producing some "new" effect, when by doing so he produces an effect which the friends of the subject never saw, and which therefore fails utterly to produce the best possible representation of that subject, the result being neither artistic nor beautiful.

I have seen a vast number of so-called "fancy lightings" and "double lightings" but it has never been my privilege to see even one, which in my judgment, would not have been greatly improved by using one source of light (properly blended, of course) and dispensing entirely with every double source of light.

To me the great majority of fancy lightings now produced are lighting abominations, and I believe that the great majority of our best photogra-

THE S. Q. DEVELOPER

phers are of the same mind, and it is surprising that so large a number should be willing to greatly lower their standards for quality of work in order to offer something "different," and which in the very nature of the case is destined to be merely a passing fad. Hence in my judgment those who first get "back to normal" and back to a sensible basis in their lighting systems, will thereby greatly strengthen their foundations for future prosperity.



The S. Q. Developer

Some readers noting this caption will probably take it as a printer's error and conclude that M. Q. was intended, but please read on.

Probably the most interesting item for the present, is the action of phenosafranine on the photographic plate, its desensitizing effect is the point that has attracted photographic experimenters and as we learn more about it, its use is likely to become quite extended.

We published a valuable contribution by Prof. Albert Johannsen of the University of Chicago under the caption, "Desensitizing Plates and Films," in our April number which probably many of our readers are familiar with, but we wish to draw attention to a later report, namely the action of phenosafranine on hydroquinone developer.

According to Dr. Luppó-Cramer a very small quantity of the safranine added to hydroquinone will convert a hard-working, short-factor developer into one of long-factor, such as metol. With this change, it is claimed the developer takes on similar properties to the well known M. Q., although metol does not enter into its composition. Dr. Luppó-Cramer has given the following formula:

A.

Sodium sulphite cryst	2 ozs.
Hydroquinone	105 grs.
Potass. bromide	10 grs.
Water	20 ozs.

B.

Potass. carbonate	1 oz.
Phenosafranine 1:2000 solution .....	.4 ozs.
Water to make	20 ozs.

Mix A and B in equal parts at time of using.

OUR WILD FLOWERS

Kindly Contributed by Our Readers

VI. OREGON GRAPE (*Berberis Aquifolium*)

This is the State Flower of Oregon; an evergreen shrub that grows from one to three feet in height, thriving seemingly on all kinds of soil and may be found all over the mountains and valleys of the Pacific Northwest.

The flowers appear in May, growing in clusters. They are of a bright yellow color and very fragrant. The clustered berries or grapes, are a purple-black in color when ripe, and sour to the taste. These berries are used in cookery and are appreciated in pies.

The plant has medicinal qualities also, and is known in the fluid extract and active principle as Berberine. Its roots produce a yellow dye of a very pleasing shade.

In cultivation, Oregon Grape makes a showy shrub and in the fall of the year, its upper leaves take on beautiful shades of a coppery red. The leaves themselves are prized for decorative purposes, being much like the holly in shape, and on that account, is frequently used to replace holly in the making of wreaths for Christmas decorations. It would have been difficult for the people of Oregon to have chosen as their emblem a flowering shrub more ornamental and useful than the wild Oregon Grape.—

A. F. Turner.





Pictures, Pastime and Profit

By Frank Belmont Odell



With Illustrations by the Author

Did you ever feel that you were not getting anywhere in the game of photography? Sooner or later you will reach that stage in your artistic enfoldment when good sense demands some compensation for your experience and skill. If you've got that far along the pyro path, there is a message for you in this story of my experience in lassoing galloping dollars with a little 3-A.

For a long time I was reluctant to commercialize my favorite pastime, feeling a queer reverence for the craft of amateur photography. I was sublimely contented to add my annual mite to the Eastman millions and felt amply repaid in the fun I was having. A clean hobby, sanely indulged, has its own compensation in the subtle and lasting pleasure of its pursuit; but, I came to a point where I liked to have the courage to check up expenditures and look facts in the eye. I wanted to be compensated in coin that I could exchange for meat and milk and mittens. I am glad that I do not know how many miles of live emulsion I have wasted, but I do know that up in the attic is a fairly large box overflowing with the ghosts of artistic aspirations of my early days.

So, instead of "just pictures" I learned to shoot at dollars and no one—not even members of my own family need know about those crisp checks the postman pokes through the mail slot in our front door. I deliberately cultivated a nose for news and now an evening's revel in the ruby glow is sure to yield a few cashable checks with my name on the payee's line.

Abstract generalizing is not particularly interesting and I very much desire that this story shall be helpful to other craftsmen who, like myself, want to make their photographic sport self-sustaining. Here's how!

A breeder of registered cattle just on the outskirts of town turned me loose in his Holstein herd and among others I secured a fairly good picture of the \$50,000 prize bull which, with three hundred words of text on "The Value of a Camera on the Farm" brought about four dollars from Farm Journal, Philadelphia, Pa. At another time four prints showing how checks are raised, rang the cash register bell in the same office to the tune of twelve dollars. To help make these prints salable I first studied the methods of professional check charmers then wrote two valid checks on a local bank and photographed them pinned up on a board. I then raised the checks (with such ease and skill that if business doesn't soon improve, I'm

CAMERA CRAFT'



Seed-Pod of Milk Weed

Seeds of the Soft Maple

Showing Seeds of Burdock
Clinging to Clothing

HOW SEEDS TRAVEL

going into the check raising game myself) and rephotographed them. About six hundred words written "around" these before-and-after pictures, brought a sea green check in four days. The D. C. Cook Company, Elgin, Ill., sent payment promptly for four prints of bursting seed pods of thistle, milkweed, burdock and soft maple. These pictures illustrated a paragraph on "How Seeds Travel", published in Boys World, one of a long string of Sunday school papers for wee tots, children and juveniles printed by the D. C. Cook Company. They are eager buyers of pictures likely to interest young readers from the prattle age up through the teens. Pets, sports, featuring children, rudamental science and nature subjects.

Six paper mills operate in and near my city affording opportunity for pictures of pulp wood and the interesting processes of converting it into paper. The Queen's Garden, Philadelphia, Pa., bought several of these. This is also a Sunday school paper published for young people. Two hundred words of descriptive text carried three prints into the accepted drawer and brought me a check for four dollars. Over in Lewis county last summer a veteran cheese maker made a cheese weighing six tons—the second largest cheese ever made. The Lieutenant Governor came up from the capitol to dedicate it or lay the corner stone or whatever it is that Lieutenant Governors do to six-ton cheeses. We motored over Saturday afternoon to see the fun, the cheese and the "Lieut", but as there was a professional photographer on the job with real equipment we refrained from intruding our little toy camera, thinking we could get a superior print from the professional. We did and Hoard's Dairyman, Fort Atkinson, Wis., paid three dollars for it.

This picture of the big cheese was strictly a news picture and was widely published by the papers of my state. To sell to newspapers, a print must have news value and it must be hurried into the office while it is

PICTURES, PASTIME AND PROFIT



"Laps," One of the Stages of Converting Wood Into Paper

The Lesson

news. News is anything out of the ordinary. So long as nature continues to produce potatoes of normal size and standard shape, there is no news value in a potato; but, when nature gets erratic and grows a spud of abnormal size or one with the spinal cord where the bicep belongs, then that potato is news. Likewise, Clod Macy may go down to his office every morning and return every night for forty years, meanwhile attending church every Sunday without becoming news; because he is doing just what millions of his kind in the tread mill of life are doing; but if he beats up his wife with an inner tube, builds his own coffin, that's different. If he happens to fall sixty feet with fatal results, Clod is news in his home town papers; local interest only; but if he falls sixty feet and comes up with a smile, a picture of the elevation from which he fell would sell to almost any newspaper in this country. And this is the psychology of news.

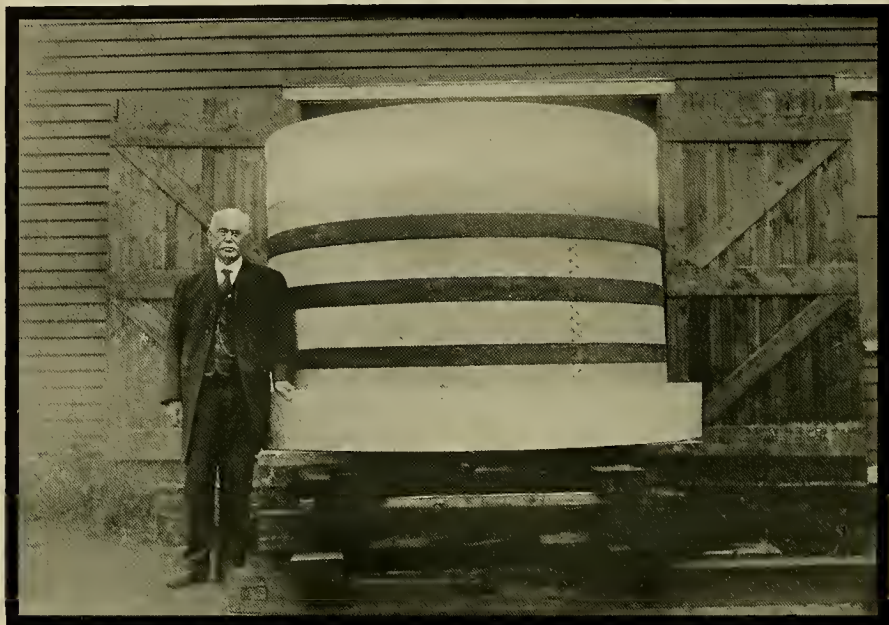
The Agricultural papers among which is Farm Journal already mentioned, Country Gentleman, Philadelphia; Farm Life, Spencer, Ind., and scores of others pay from fifty cents to three dollars each for prints with a distinctive farm flavor or short-cuts to better and easier work around the farm.

Other markets for pictures of stock, artistic groupings of farm buildings, new ways to use concrete, repair kinks and pictures that smack of the better side of country life are: New England Homestead, Springfield, Mass., Successful Farming, Des Moines, Iowa, E. A. Strout Farm Agency, New York City, and Journal of Agriculture, St. Louis, Mo.

Grit, Williamsport, Pa., and Saturday Blade, Chicago, Ill., illustrated weekly newspapers, want photographs of curious things, freaks of nature, the odd and queer happenings everywhere. The minimum rate is one dollar. Leslie's Weekly, New York, pays high prices for excellent pictures of current news. They have a liking for informal snaps of national celebrities at work or play, unusual occurrences of wide interest and appeal and striking events in the world of business or sports.

CAMERA CRAFT

The outdoor magazines like National Sportsman, Boston, Mass., Outing, New York, and Outer's Recreation, Chicago, Ill., want camping scenes, big catches of fish, wild animals in their native haunts, game birds in flight, hunting, fishing, canoeing and vacation sports.



THIS CHEESE WEIGHED SIX TONS

The man is Horace Reese, heralded as the premier cheese maker of America.

Photo by Mandeville Studio

I have purposely listed markets which require little writing in connection with submitted prints, though, of course, all must have sufficient descriptive notes to explain the photographs.

It will be seen from the accompanying illustrations all of which have sold recently to magazines, the quality of my work is the usual run of careful amateurs. The main thing seems to be to have a definite idea that can be translated into a picture, then photograph that idea isolated from every other one.

I use a Seneca in the 3-A size, equipped with a Goerz lens for closeup studies of plant life, or insect studies, bringing the specimens home from rambles afield where I can get away from annoying breezes and unfavorable light. For field work I carry a 1-A Kodak with special lens. My homemade lantern throws them up to four by five or any size I want retaining full detail and adding to the atmospheric effects. Once Nature and Culture, Cincinnati, Ohio, bought a life size study of a gorgeous hued butterfly for a cover design and when it appeared in print labeled with its scientific name I discovered that it was not a butterfly at all. It was a specie of moth. The label said so.

There are more than thirty thousand periodicals published in this country. Nearly all are illustrated with half tone cuts made from photo-

“GET THE PICTURE”

graphic prints. Some one supplies these pictures and is being paid generously for doing it. It is worth while to go through your accumulated stock of prints and negatives with an eye to finding some that are salable. Study the current numbers of different magazines and try to drift into harmony with their respective editorial ideals, then send in the best prints you can possibly make—prints which will fit exactly into their scope. Examine copies of the magazines at the public library or Y. M. C. A. reading rooms. When you send out prints remember to enclose return postage, not with the pictures, but in a letter. A title and descriptive text are necessary, but no fine writing or literary aeronautics will get by. Glossy prints always. Sharp detail, black and white. Sepias and toned prints won't do.



“Get the Picture”

By Frank B. Howe



With Illustration by the Author

It is the unailing custom, in news photography, for events to occur just at the moment when the light is poorest, or the conditions worst, for making pictures. At least such is the impression that prevails among press photographers. Such an occurrence was the cause of a little stunt that Ye Editor thinks may be of interest and which may suggest a new use for enlarging apparatus to those who read this little tale.



EFFECTIVE WORK IS OFTEN PRODUCED ON SHORT NOTICE AND UNDER DIFFICULTIES

CAMERA CRAFT

At 5:30 in the afternoon of a heavily-overcast day, there came into the office a girl of news interest whose picture we had been trying to get for three weeks. We knew we would never get another chance to make the picture: we knew that the light coming into the room was impossible: and we also knew that local conditions made a flashlight inadvisable. It looked hopeless: yet the slogan of press photography is "get the picture, no matter how."

So, in despair, and with very faint hopes, we turned to the faithful reflector that forms the basis of the enlarging illumination in our office. It is equipped with a 100-watt lamp. Hauling this forth from its place and endeavoring to make it appear as though this was a customary occurrence, we proceeded to take a chance. The young lady had a friend with her, so we drafted the friend into service and made her the spotlight operator. A permanent stand of some sort could doubtless be arranged to replace said friend if this were to be an every-day practice.

With a more or less flat illumination, such as is customary where prints are to be reproduced in coarse-screen halftones in newspapers, we blazed away, holding the shutter open until the subject began to move. The limit of stillness was generally about three seconds and the stop used was about F-11, Portrait film, whose speed is said to be about the same as a Seed 30 plate, was used.

Not only did the fully-timed negatives nearly cause our demise from sudden surprise when they were placed in the developer, but the quality was much better than we had been getting with daylight. The reflector seems to give a peculiar quality of illumination that is ideal for negatives that are to produce prints for newspaper reproduction, while the light seems to be fully strong enough to warrant the assumption that it would be practical for getting pictorial effects in portrait work as well.

The prints reproduced herewith are contact prints on Azo F No. 2, from the negatives above described. They are not retouched or after-treated in any way. Please examine them from the standpoint of adequate illumination only. They are not offered for consideration as portraits, but as newspaper pictures. The two fields have entirely different requirements.

Anyone who has an outfit of this kind, a little time, and an inclination toward portrait photography might find it interesting to see what could be done along the latter line, using the enlarging reflector to supply the light. It would seem as though some excellent effects could be obtained without the necessity of great outlay for illuminating equipment.

[Note.—The author's suggestion is a good one. Many amateurs possess the necessary equipment to experiment along these lines in portraiture at home. Pleasing effects may be secured thereby.

There are workers, however, who are not so well outfitted, they must not be forgotten. We would remind these amateurs of the inexpensive flash sheet, which in some respects we prefer to powder.—E. F.]

View Holder for Stereoscope

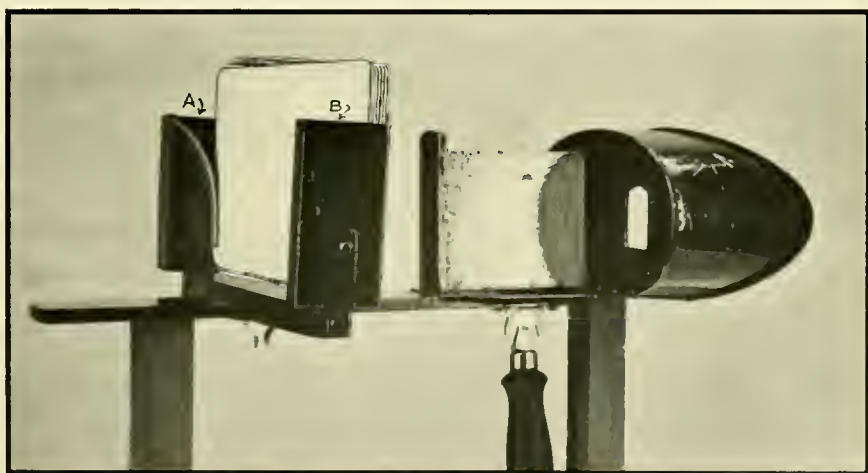
By James N. Doolittle



With Illustrations by the Author

Notwithstanding the unparalleled beauty and exquisite charm of the stereograph, stereoscopy, for some reason or other has never, in this country at least, enjoyed its full measure of popularity. Perhaps it's the "quick and easy" characteristic of the American photographer—the "you-press-the-button-we-do-the-rest" type of workman who has abandoned the view camera and the finer printing processes for the pocket camera and the gaslight paper that is responsible for the fact that the stereoscope and collection of views that was once present in every household has gone the way of other antiques.

By the person, however, who still enjoys the wonderfully realistic "stereo" the simple appliance illustrated herewith will be appreciated. It is merely a means whereby a number of cards may be held in the viewing frame at the same time and may be removed—automatically bringing the card behind it into the focal plane—without removing the eyes from the glass. Constructed of $\frac{1}{2}$ "x $1\frac{1}{2}$ " channel brass and two pieces of clock spring this attachment takes the place of the ordinary wire holder as regularly fitted to the sliding arm of the stereoscope. The brass can be obtained at any hardware store and the spring may be procured by purchas-

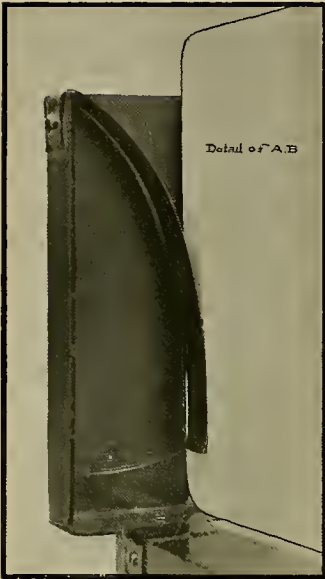


A VIEW, SHOWING THE MAGAZINE CARD HOLDER

CAMERA CRAFT

ing an alarm clock of the common kitchen variety, removing the "innards" with an ice pick or can opener, being careful to avoid the trajectory of the spring as it disengages itself from the balance of the machinery.

The appliance illustrated will accommodate about twenty-four views by mounting prints on both sides of the cards. So mounted the stereographs remain perfectly flat.



Detail of Magazine

[Editor's Note—The subject of stereoscopy is attracting considerable interest among camera users today. This is owing to the advent of the modern stereoscopic cameras. These instruments are an advance on the old types, being much more compact in design. Naturally the pictures are smaller, about $1\frac{3}{4}$ inches square each, but as they are magnified in the stereoscope one forgets their diminutive proportions.

No longer is it necessary for one to burden himself with a 5x7 camera, as in former days, to secure these delightfully realistic pictures, things are so changed now, that the new camera one carries is little larger than an ordinary hand camera.—E. F.]



This illustration is offered as an unusually good example of composition. The original picture was a painting.

Photographic Wastefulness

By Theodore E. Peiser



The Reminiscence of an Old-Timer

In the days of wet plates and albumen paper there was a great waste of the very valuable metals, silver and gold, by ignorant, careless, or indifferent photographers. As Victor Hugo says in one of his books regarding the wealth going to waste in the Paris sewers, meaning the fertilizer, the same could be said about the loss of the solutions from photographic studios in the United States during the wet days. The "Prohi." who may read this will probably say: "and it wasn't confined to the photographic studios, either." Well, he gets no argument out of me. But, if I had my choice between the kind of poison handed out today, and the "poison" of these anti-

prohi. days, I would take the last. But, to get back to our mutton stew as Georges Carpentier would remark.

The few photographers who knew how and were sensible enough to do it, saved what was generally termed "The Wastes," because so much of it went to waste, were well paid for their trouble. Some saved their negative developers by having deep sinks in their dark rooms; the developer and rinsing water carried—and precipitated at the same time because of the iron developer—the "waste" into the bottom of the sink. Once or twice a year this was taken out and dried for mailing to the refiner. How those dark room sinks did st—, I mean, smell! but the first word would have spoken more truly. No wonder so many photographers were sickly. People attributed it to "the acids." They knew



THEODORE E. PEISER

When employed at The Grand Art Studio, corner of Third and Jessie Streets, as printer, in 1874.

no better. A better way, followed by the more cautious operators, was by

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keeping a large glass funnel, with filter paper in it, in a large bottle. The silver was precipitated and held back by the filter paper; only the water went to waste. Later, the mud was scraped out and dried and the filter paper burnt with the "trimmings" and spoiled prints.

The rinsing of the silvering, i. e., sensitizing tray, the first two washings of the albumen prints, the hypo fixing baths when old, the old toning baths was poured into a large earthen crock or wooden barrel. When this was full, sulphuric acid was added until the water turned blue litmus paper red. Then enough of a solution of sulphuret of potassium was added, until the water was almost black; it was the sulphuret of silver that made it that color. Then, it was left alone to settle, after which the clear water was drawn off by a rubber syphon. When the "mud" became several inches deep, it was taken out and dried; it resembled, more than anything else I could mention, adobe mud; it had cracks in it like adobe, also.

The paper trimmings, "burnt" prints, underprinted pieces, was burnt in the printing room stove in a quick fire, so it would leave nothing but white ashes. This showed that there was the maximum content of silver for the refining process. This was wrapped up securely and mailed together with the dried precipitates. After deducting the moderate charge for refining the "wastes," the chemist would return to the photographer silver crystals and gold chloride, the former selling in the stock houses at from about \$12.50 to \$14.00 a pound. Gold chloride was worth its weight in pure bullion. Many photographers used to take a \$2.50 gold piece, dissolve it in nitro-muriatic acid (aqua regia), and neutralize this with a lump of marble. Then, over a sand bath (a pan of sand placed over a coal oil flame, in which a porcelain dish was placed) in this porcelain dish the dissolved gold was evaporated to a dry mass. This was gold chloride. Some photographers added salt, or, to speak more professionally, chloride of sodium, but it was not necessary, all it was done for, was to make the prints red when put into the toning bath, and most photographers put the salt into the last wash water anyway.

"But soon a change came o'er the scene," as we used to sing of "Old Grimes' Cellar Door," when dry plates began to come upon the market. It took several years for them to supplant the wet plates entirely, but they succeeded just the same. The evolution from albumen and plain silver prints, however, took longer, for the first collodion and gelatine coated papers gave the photographers considerable trouble. But, like the dry plates, they eventually conquered. Then, the developing papers entered the ring, and they, today, with both commercial and portrait studios, predominate. The higher class studios use platinum or carbon paper on the very best work, but they are few compared with the users of developing papers.

Dry plates and ready prepared papers put an end to saving the "wastes," for it was thought that, seeing the work would be more difficult, it would not pay to bother; yet, in my opinion, where many pictures are made, there could be enough silver saved to pay for the trouble. Gold,

PHOTOGRAPHIC WASTEFULNESS

seeing there is no more toning done, is not used any more, except you mention that in sepia toning.

Years went by. Wet plates and albumen paper had been relegated to the past. Now, only photo engravers, electrotypers, with the newspapers, mostly use wet plates. Probably no place, except a few of the European countries, is albumen paper used any more. Chemists are not called upon to refine "wastes" any longer. After most of the other photographers had given up making wet plates, I made them—in the form of ferro-types, or as most people call them "tintypes," although no tin is used, only sheet iron, japanned—up to 1908. They were not the modern sort, dry ferro plates, but real wet plates. I have always felt that, except in the matter of speed, principally, the wet process, plates and paper, beat the present day preparations. I would like to see prints made fifty years from now placed alongside the prints made forty and fifty years ago—the latter would then be a hundred years old. Albumen prints can be compared to carbons or platinumums of the best grade. I have prints on albumen paper, taken nearly fifty years ago, and there is no sign of age about them. A little chafed from rubbing against others, that is all.

For years after I had given up saving "wastes," because, for one reason, I had so very little compared to the time when I had a pretty good business, and, further, because I, like the rest, did not think "waste" from the prepared plates and papers would pay to bother with. But I had some precipitate, a few ounces, I had kept all these years. So one day, I sent it off to my old chemists, C. Cooper & Company, 94 Worth Street, New York, for refining; just to see how much silver there was in it. Soon I received the assay, in the form of a nugget, or "button;" it weighed just one dollar. The value intrinsically was little, but, as a curio, its value was very considerable. I received a very nice letter from my chemist friends, saying they had not done any refining of "wastes" for a good many years; the dry plates and prepared papers had stopped it. But, for old times sake, they assayed my material, and would charge nothing for doing it. They thought the having of such a curio was a nice thing.

I wrote an article several years ago and gave it Mr. Clute for publication, along with the "button," for photographing for the illustration. Mr. Clute was ailing for several years, and he was really in no condition to attend to his business as it required. How it happened, no one knows, but my button was lost; whether it will ever turn up, is doubtful. I thought I was the only person in the United States, perhaps the world, who had such a memento of the old wet process days, but I have learned that there is another photographer, not one of the extreme old time members of photography, but well back, who has one—Mr. Gabriel Moulin, of San Francisco. I feel very sorry to have lost my curio, it would have made this article more interesting. So, I must ask the readers of Camera Craft to please send out a wish that my memento will yet turn up. Perhaps, some day in the future I may submit a more extended article relating to conditions during the "old days." I believe I have some interesting material to offer.

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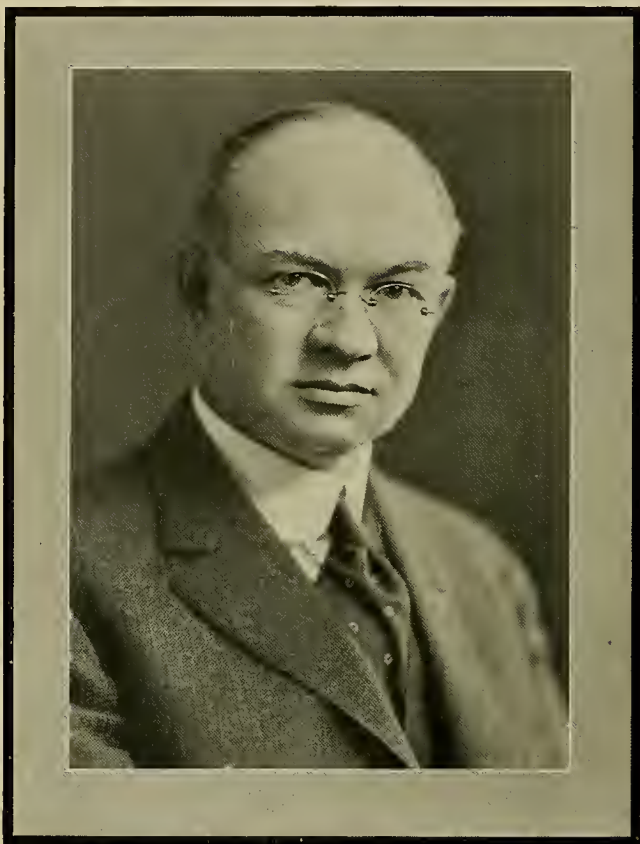
A PHOTOGRAPHIC MONTHLY

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FRANK S. NOBLE

Frank S. Noble, vice-president of the Eastman Kodak Company, died suddenly at his home in Rochester, New York, on the evening of July 5th.

His place in the world of commerce was important. To photographers and those in that business his life was important. He was ever sympathetic and helpful to all men and was loved widely.

His enterprise and industry were but material manifestations of the man. The warmth of his friendships, the number of his benefactions and his true Americanism proven during the war are less tangible but fully as real, and potent, factors in deter-

mining the measure of Frank S. Noble. He did more than endurance allowed. From the superhuman efforts as Director of Production of War Munitions he never fully recovered. In this he has given his life to his country.

He is gone from us, but we are better for his having lived. We cannot add honor to the memory of so good a man. God hath put the stamp of His favor upon him and these words are but a human attempt at the expression of a great sorrow, the recognition of a great loss.—S. B.

EDITORIAL

Our Magazine this Month

The subject of Soft Focus Lenses is today attracting more attention among pictorialists than ever. The article by H. D'Arcy Power, M. D., Editor-in-Chief of Camera Craft, with regard to these lenses will prove an addition to the literature on this very live topic. Dr. Power's position in the photographic world is authoritative, and his familiarity with the subject in hand, places him in an enviable position to give valuable information to the enquiring reader. We believe this contribution will prove acceptable.

In a letter we received from Mr. Odell, some months ago, he spoke of his early photographic experiences. In that letter he gracefully acknowledged the help that Camera Craft had been to him, and also expressed his appreciation for the encouragement he had received from Mr. Clute, its late editor and owner. Of course, our contributor was speaking of the years gone by, but he had not forgotten us, neither had, what a beginner would like to know, slipped from his memory.

As a free lance in pictorial news work, Mr. Odell has written a most interesting article in "Pictures, Pastime and Profit," and we feel sure our readers will be interested.

To that question, "How can I dispose of my photographs?"—we urge those enquirers to read Mr. Odell's article, think on it and study the situation. It will add zest to the work to know just what to do and where to place the product. We can probably do the photographing well, then there remains the study of the market and the more we are conversant with the game—it is a game, is it not?—the more returns there will be.

The Jazz in portraiture is with us. It was too strong to be confined to music alone, and it slipped or slopped over upon photographic portraiture.

What kind of portraits do you like best, of a relative or of a dear friend? Your choice would probably be with the picture most like them, at their best. Remembering this, it does seem strange that many of our friends should decide that a photograph of themselves in a perfectly unnatural lighting would be just what we want.

When the world was young Old Sol warmed it and lit it from one quarter, the world did well with that "single lighting," but the jazziest photographers of our day have gone Old Sol one better and they light from two quarters, with a twilight, nay, sometimes almost night in between—and your portrait did badly—so your friends probably thought, because, you did not look just as they knew you.

There is an article on this subject, entitled, "Back to Normal," by Jas. H. Smith. Mr. Smith is not putting forward a fad, he is merely advocating sanity in photographic portraiture. It is easy to see Jas. H. Smith thinks we should give our friends portraits they will recognize us by and would like to have, for the simple reason they are like us.

Our other contributors, Frank B. Howe, James N. Doolittle and Theodore E. Peiser, add to the variety of our subjects; and again Camera Craft goes forward to meet its many friends.—E. F.

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The Gum Process

The gum print has been spoken of as something almost of the past, it has so been stated in at least one leading foreign contemporary. This statement is correct, as far as the average amateur is concerned. We might say, it was never a process for the average, it belongs to the individual who has individuality.

Individuality, in the treatment of anything, is indeed a rare gift. We notice it in childhood, or perhaps we should be more correct in saying, it is noticeable in babyhood, but our general system of training tends to eliminate the gift, by fashioning all to a general level; broadly speaking, to the similarity of "peas in a pod."

To all rules there are exceptions, and where these exceptions are regrettable we dub them by the all embracing title of "cussedness." But—and we may felicitate ourselves that it is so, there are a few here and there in all lines of endeavor, who have preserved, or perhaps who have redeveloped their individuality to an extent that it becomes a blessing to mankind. These shining lights, for such they may truly be called, illumine the gray or the drab of general existence by adding to our knowledge and pleasure.

The gum process is not dead. As long as we have those who are willing to work for the pleasure of working, it is not likely to die. There is something encouraging, elevating, in the contemplation of the true amateur: one who does a thing for the love of it. What wonder is it the real amateur is invariably a success.

To the class of true amateurs belongs Mrs. Nancy Ford Cones, and we are pleased to promise Our Readers examples of Mrs. Cones' work, done in gum. We will not pause to dwell on the subject of the pictures themselves, as written descriptions are inadequate, but in our next issue we shall begin the publication of some of this lady's portraits as illustrations for three articles being written on this subject.

Professor Daniel Cook, University of Cincinnati, has undertaken to provide the text for these articles, and as Professor Cook is an artist himself, we may look for something both interesting and instructive.—E. F.



A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

The Anaglyph

It is to the late Ducos du Hauron that we are indebted for the anaglyph—the stereoscopic lantern slide. Although the process is well known and details are available for the preparation of the slides, very little use has ever been made of it. This is due to the fact that it has been looked upon more or less as a scientific curiosity.

In reality it is anything but that. It is a thoroughly practical process, and when the anaglyphs are properly made and projected they give pictures of extraordinary beauty. There is nothing difficult about the making of the slides. There are a few things that one must guard against but the trouble one encounters is more apt to be due to the inability to procure suitable dyes for staining the images and viewing filters than to the inherent defects in the process itself.

Although primarily intended for lantern slide projection, the anaglyph with slight modification is adapted for ordinary stereoscopic work, and it is with this phase of the subject that this article will deal.

In order to understand the optical principles on which the obtaining of the effect desired is based, let us consider a simple case.

Take a green print made from the right hand side of a stereoscopic negative and examine it through a piece of green glass. If the green in the picture has the same absorption power as the glass, nothing will be visible. Now take a red print made from the other side of the negative and examine it through a piece of red glass. As before, nothing will be seen, provided the glass has the proper absorption qualities, which we assume it has.

Now reverse the pictures and examine the green print through the red glass and the red print through the green glass. There is now a different story to tell. In

both instances you will see a picture, the lines of which will be black.

Mount the two pictures together, and you will have an anaglyph. If this has been done properly, the eyes looking through glasses of different color will see, not two, but a single image in monotone, as in viewing an ordinary stereoscopic picture.

In one particular the anaglyph differs from the stereoscope very materially. Whereas in the latter it is customary to preserve a distance of about two and three-quarters of an inch between centers, in the anaglyph the distance is reduced to a quarter of an inch or even less. This is practically superimposing one picture on another, and because of this the top picture must have a transparent support. How this may be done will be described later on.

One of the most difficult things that one has to contend with in the making of anaglyphs is the procuring of suitable colored glass. Many workers use stained film for the viewing glasses and, generally speaking, it is the most satisfactory solution of the problem.

As a matter of convenience, the glasses or film, as the case may be, are mounted like a pair of ordinary spectacles and used in much the same way. There is no particular rule as to which eye is to have the red or green filter. The essential thing is, that having determined upon the arrangement, to see that the pictures are properly placed for viewing. If the right eye has the red filter, then the right hand picture must be green, and the left eye having the green filter, the left hand picture must be red. Each eye will then see but one image, and if these have been reversed, as is customary in the ordinary stereoscopic work, the effect will be that of a single picture standing out with all the life and naturalness that is characteristic of views of this type.

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A few words of explanation may make some of the details of the process a little clearer. First of all, let it be understood that the worker is not confined to the two colors red and green. Any two colors may be used, provided they are complementary. Red and blue are frequently used and are preferred by a great many.

Let us assume that we are about to make an anaglyph using these two colors and that the blue will be used on the right hand side and that it will form the background on which the red is to be super-imposed. If we decide to make the blue image on paper, as is frequently done, several processes are open. We may make a cyanotype or blue print or we may employ carbon. Or if not satisfied with these we may make use of one of the many toning processes which will give the desired effect.

If instead of an opaque background we decide on a transparency, still other ways are opened up of which the pinatype process is unquestionably the best, and for that matter the only one which the worker should use if he is seeking the best results obtainable.

The background having been obtained, the next step is to secure the second image on a transparent support. Carbon tissue, such as is used in tri-color work, is admirably adapted for this purpose when mounted on thin celluloid.

If one does not wish to employ carbon, he may make use of a piece of negative film. The unexposed film is first sensitized in a bichromate solution in precisely the same way that one would treat carbon tissue. When dry it is exposed under the negative in a printing frame with the gelatine side reversed. At least five or even ten minutes' exposure to the sky is desirable. The object is to tan or render insoluble the gelatine. Those who have worked with carbon will understand what is wanted. The film is now placed in warm water and the soluble parts removed by gentle laving; a soft brush, if necessary, being used to hasten the action. It is then fixed, washed and dried, after which it is ready for dyeing.

The dyeing is really the rock on which the anaglyph is either shattered or finds a firm support. At the present time it is

extremely difficult to find any suitable organic dyes, but here and there one may run across some, and when this happens it will well repay anyone interested in the subject to look into the process.—Harrington's Photographic Journal.

Ives' Medico-Chromograms

Mr. F. E. Ives announces that he has introduced a sufficiently truthful, simple and inexpensive system of color photography for making records in medical hospitals, comprising a special stereoscope color camera, a simple fixed-focus copying camera for making transposed-image color transparencies and the Verak Stereoscope for viewing them in natural relief.

Technically a "two-color" process, it is in reality a two-color-plus process, by virtue of Mr. Ives' invention of the dichroic red-to-yellow print from the green-blue negative color record, and truthfully renders the colors found in the class of subjects for which it is recommended.

The stereoscopic feature is most important in this kind of work, and involves no complication in the operation of the process. The images as seen in the Verak stereoscope are convincing re-creations of the subjects photographed, without "structure," and in true relief and perspective.

Two identical panchromatic plates are exposed simultaneously and developed simultaneously, producing the stereoscopic negatives by Mr. Ives' original and most simple photographic mordant dye process, converting the silver image to a transparent variety of silver ferrocyanide, which in turn mordants the respective colors from basic dye baths. Any desired number of the stereoscopic color prints can be made from the original negatives, also lantern slides and paper prints. Particulars and prices are obtainable from Mr. Ives, 1327 Spruce Street, Philadelphia, U. S.

Autochrome Portraiture

M. Hervé, one of the veterans of the French Photographic Society, recently delivered before the latter body a short talk on the attractiveness of Autochrome portraiture by natural light out of doors or in the studio. While admitting that exposures ranging from 10 to 40 seconds were necessary in his experience for successful work, he nevertheless found that there

A PHOTOGRAPHIC DIGEST

were numerous graceful poses in which sitters found no difficulty in remaining motionless for such times. He advised that colors in the costume should be neither too dark nor too pale; light blue and mauve are especially to be avoided, whilst Japanese blue, dark green and bright red yield excellent results and a bright note of color if used with discretion. He advised that direct sunlight should be avoided. Whilst in an open courtyard or garden an exposure of 10 seconds may be considered a normal one, 4 or 5 seconds will suffice on a sea beach, but in woodland surroundings, where the reflected light is predominantly green, 25 to 30 seconds will be necessary. M. Hervé gave these data as purely arbitrary and not in accordance with the indications of an actinometer. Yet in his experience they had proved a useful guide for relative exposures under different conditions. When using a lens of aperture f-10 or f-12, he would consider 20 seconds as approximately the normal exposure, which naturally could be greatly reduced by the use of modern lenses of larger aperture. A great deal of his work had been done, however, with a Dallmeyer lens of about f-10 aperture. He found it of advantage to make a pretence of exposing a plate in order to put the sitter at his or her ease through long exposure. He found that sitters experience no difficulty in remaining still for the necessary length of time after having once or twice realized how long it was.—B. J. of Photography.

A New Green Sensitizer

[In the following note, published in the current issue of "Photographische Rundschau," Dr. E. König gives the first particulars of a new color-sensitizing dye which has special and greater sensitizing properties in the green part of the spectrum, and is found to confer an advantage in practice in the making of the color-sensation negatives for processes of color photography or color cinematography.—Eds. "B. J."]

At the present time there is no lack of red sensitizers. The red-sensitiveness of plates sensitized with pinacyanol or similar dyes fulfils all the requirements of photographic practice. Our aim of late years has, therefore, been not as formerly

the improvement of red-sensitive plates, but the discovery of a specific sensitizer for green. From both the scientific and practical standpoints this long-desired dye has now been obtained in a new coloring matter to which the name of pinaflavol has been given.

Pinaflavol belongs to an entirely new class of basic dyes, and was prepared in the photo-chemical laboratory of the Höchst dye works by Dr. Robert Schuloff. The dyes of this series are characterized by their yellow color and by their specific sensitizing properties for the green part of the spectrum. Their behaviour towards acids is similar to that of the pinacyanols; they are stable towards acetic acid, but are decolorized by mineral acids.

Dr. J. M. Eder writes of the new dye as follows:—"In Pinaflavol we have obtained the long required green sensitizer, having a maximum at about the line E (wave length 5300u) falling sharply to D and extending without gaps to F. In comparison with the eosine dyes Pinaflavol does not exhibit the unfortunate minimum in the blue-green, but yields a strong, even spectral band over the whole of the green, blue and violet."

As regards the sensitizing curve of Pinaflavol, the rapid fall of the sensitiveness at D (in the yellow) is of special interest. In practice this fact is shown that in making an exposure on a colored chart with a medium yellow filter the yellow-green is obtained stronger than the yellow. In orthochromatic photography there is, of course, no advantage in this, since yellow is visually lighter than green. Thus, for the preparation of orthochromatic plates the older sensitizers, erythrosine, ethyl-red or Pinaverdol are to be preferred. But in processes of three-color photography the advantage is proportionately greater. As is well known in making a set of three color-sensation negatives the red printing plate exposed through the green filter requires the longest exposure. The isocyanine or erythrosine plates hitherto used all possess a considerable sensitiveness to yellow and even to orange. It is, therefore, necessary to damp down the yellow and orange by means of the green filter in order to obtain the better effect of the

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green. But a green filter, on account of the density of all green dyes, absorbs a good deal of light, and, therefore, considerably prolongs the time of exposure.

Owing to its favorable sensitizing curve, Pinaflavol allows of the red printing negative being made with a yellow filter; the filter requires only to fulfil the purpose of cutting out violet and blue. Inasmuch as yellow filters are of a high degree of transparency, the time of exposure can be reduced to at least one-half. This shortening of the time of exposure is of considerable value, not only to makers of three-color process blocks, but also to those practising photography in natural colors, and particularly in color cinematography, where any reduction of the period of exposure is an important advantage. It will thus be seen that Pinaflavol is an important addition to the available color sensitizers, and represents a notable piece of progress in color photography.

Pinaflavol is used in the same manner as the cyanine and isocyanine sensitizers. The sensitizing bath is made as follows:

Distilled water100 c.c.s.
Pinaflavol, solution of 1 part in
1,000 parts of water 2 c.c.s

Plates are bathed in this sensitizing bath for about two minutes in the dark, or by red light, allowed to drain thoroughly and dried. The sensitizing bath compounded with a mixture of alcohol and water, as is largely employed with the isocyanine dyes, may also be used, but yields plates of a lower degree of sensitiveness. Experiments made in the way of combining Pinaflavol with other sensitizers have so far failed to yield good results. Pinaflavol is

also suitable for the sensitizing of collodion-bromide emulsion, for which purpose about 20 c. c. s. of a solution of 1 gm. Pinaflavol in 1,000 c.c.s. alcohol are added to 1 litre of emulsion.

Dr. E. König.—B. J. of Photography.

Cascade Washers

We were recently asked for advice upon the selection of a system of washing prints and enlargements which were coming through all day at irregular intervals. In these circumstances we unhesitatingly recommended what is generally called the cascade method. It is based upon an old idea which has stood the test of time, and it is simple and not wasteful of water—a matter of some importance nowadays. The installation consists of a series of wooden troughs, each large enough to accommodate the biggest prints likely to be dealt with in quantities. These are arranged like a shallow flight of stairs, the water flowing into the uppermost one through a perforated tube at the farther edge. When the first tray has filled, the water overflows through a series of openings into the tray below and from that in the same way through the others. In most cases a convenient arrangement would be four trays, each about 24x20 and five inches deep, and if space be limited the trays may slightly overlap. The prints, after a preliminary rinse from the hypo, are placed in the lowest tray, and after five minutes in this are successively placed for the same time in each of the higher ones. If a large number of prints have to be dealt with the number of trays may be increased, so that the longer time will compensate for the crowding in each tray. —B. J. of Photography.



THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

On Choosing a Camera

This undertaking is about as puzzling to the beginner in photography as any thing could possibly be. It certainly seems the more catalogues we read the more dubious we are, yet we have to make some sort of a beginning.

It has been stated by some, a good way to start is to buy a low priced camera of the box type, and work with that until familiarized, thereby learning the many essentials of a new undertaking. This may be good advice, but there is another viewpoint, which applies to some.

I have noticed the one great drawback to investing in a low priced camera is, what I may call its moral effect on some users. Some of us are so constituted that we do not value that which costs little. We are prone to regard the inexpensive box camera as incapable of producing good work (which is entirely erroneous) and on that account we are very apt to attribute our lack of success to the low cost of the instrument. Under these conditions progress is slow; it is but natural.

For these reasons then, I believe it is good practice to remove the temptation of self excuse. Buy the best camera you can afford; go your convenient limit. The actual outlay need not be excessive, so long as we confine ourselves to the best in the small sizes.

To the natural question, what is the best camera? I unhesitatingly reply, the one you like best. There are a host of very fine cameras on the market, both of domestic and foreign makes. It is entirely a matter of individual preference.

Here is a true story to illustrate my point: Some four months ago I received a letter from one of our readers in Canada, asking for information on some foreign makes of cameras, at the same time the writer made it clear he was not interested

in cameras of "Heinie's" construction, as he termed the German product. You will appreciate the fact this correspondent was prejudiced, German made cameras would not suit him, he would not be contented with them. Under these conditions then the probability is, this man might do better work with cameras of British or French origin. Notwithstanding the fact there is little, if any, choice between all three makes.

There are some technical points I would have you understand before you buy your camera. You will then see that your choice is not confined to any particular make. There is not the slightest doubt that just as good pictures can be made, and are made, with American cameras and lenses as can be produced with instruments of foreign manufacture.

Hand cameras, being so popular today, we will confine our remarks to them. A clear conception of the following will help you select your camera understandingly. We will consider the focusing cameras, as they are the more generally useful. As hand cameras are invariably used in the hands, we have to guess our distances when focusing. The greater the depth of focus your lens possesses at the full opening, the less liable are you to have your picture out of focus. A small lens then, that is a lens made for a small sized picture has a greater depth of focus than a lens made for a larger picture, both lenses being used at the full opening.

For example: A vest pocket camera with a lens of $3\frac{1}{2}$ -inch focus, with the largest stop or at full lens opening, would have everything in focus from 9 feet to infinity. On the other hand a lens of $5\frac{1}{2}$ -inch focus making a 3×5 -inch picture would show things in focus from 17 feet to infinity. The picture is larger of course and the objects in that picture are larger,

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but we do not have the same margin for error in our guessing of distance. That difference is 8 feet in favor of the smaller camera. Now it is quite possible to lose our picture on account of that 8 feet, by this I mean the picture might be so out of focus as to be useless. This difference in a picture is known as the depth of field, and you will understand now that the difference between the two cameras under discussion is, the smaller camera gives you pictures of a greater depth of field, in focus.

Many amateurs do not care for pictures made vest pocket size, they deem them too small, forgetting altogether that a print twice as large, or four times the area can be very easily made with the aid of the low priced Brownie Enlarging Box. As I am given to doing these things and am well satisfied with results, I have confidence in recommending the method.

Probably the two most popular sized cameras today are the $2\frac{1}{4} \times 3\frac{1}{4}$ and the postcard size, $3\frac{1}{4} \times 5\frac{1}{2}$. The $2\frac{1}{4} \times 3\frac{1}{4}$ makes a pleasing print by contact, not too small, and a first class enlargement post card size in the Brownie Box. The making of an enlargement by this means is not more difficult than the making of a contact print. We certainly shall not need to enlarge from all our negatives and while I personally favor a $2\frac{1}{4} \times 3\frac{1}{4}$, for reasons above mentioned, it has an added advantage, for as a friend once remarked, it costs less "to feed" than a hand camera of larger dimensions. These remarks will perhaps help you to settle the question as to the size of camera you would like.

Now we come to the question of lenses, what shall we select? There are three distinct types: the single, the rectilinear, the anastigmat. For pictorial work the single lens, under favorable conditions, will give as satisfactory results as any. This lens has two marked faults, however, as compared to other lenses, it is slow, its use in hand camera work must be confined to well lit scenery or objects. The other objection to it is, its failure to give marginal lines in true rectilinearity, and this defect is very noticeable in pictures of architecture. This lens, on account of its modest price, is supplied to the cheaper forms of cameras.

The rectilinear is about twice as fast and is free from marginal curvature, it is an excellent lens of the lower price, it has some defects in definition if used wide open, but these defects are not noticeable in pictorial work. This type of instrument was for many years considered the all-round lens.

We have now arrived at lenses of the anastigmat type, these are an improvement on the rectilinear. A very excellent lens of this group is the one working at the stop F:7.7, for speed this lens is practically the same as the rectilinear, but its superiority to that lens lies in the fact it has a flat field, a valuable quality where a flat field is necessary, but it is seldom necessary in pictorial work. So I would strongly advise the reader, if convenient, to skip this lens in favor of the anastigmat F:6.3, now this lens is twice as fast as the rectilinear, which really means, your chance is doubled in getting the picture should the light not be the best.

The next lens to engage our attention is the anastigmat working at the stop F:4.5, this lens again, is twice as fast as the F:6.3 and if the novice were to stop reading right here, he might conclude that this was just the lens for him. To set his mind at rest I will hasten to explain that to gain this extra speed a certain depth of focus had to be sacrificed and on that account the guessing of correct focus is difficult, neither has this lens the depth of field possessed by the F:6.3. For cameras of the Graflex or Reflex type the F:4.5 is a very valuable instrument, but in that case we focus by the aid of a mirror, guessing is entirely eliminated.

If the question of extra cost may be waived, this F:4.5 lens would occasionally serve a useful purpose as a reserve power, but it would have to be stopped down to F:6.3 to have the advantages of that particular lens.

To sum up this question of lenses then, the beginner will find a small camera fitted with an anastigmat F:6.3 will give him an outfit with which he can not well find fault. If there should be any error in the work, it is always a comfort to know where to place the blame, neither need we apologize that our work is only the product of a hand camera.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

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3x4 or 5x7 of landscapes, flower studies and genre; for artistic photos of any kind or anything of interest. Class 1.

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Class 2
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(Was 753 Pac. Elec. Bldg., L. A., Cal.)

4868—H. Carl Marmon, Tennessee City, Tenn.

(Was P. O. Box 61, Wartrace, Tenn.)

4892—Oscar Allen, Kerens, Navarrol Co., Texas.

(Was Harrisburg, Tex.)

4899—Anton Berest, 5100 No. Broadway, St. Louis, Mo.

(Was Irondale, Ala.)

4833—W. F. Perez, Box 1931, Jacksonville, Fla.

(Box No. omitted in the April issue.) Class 1.



NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

While the notices under this heading are strictly in the nature of information and news for the benefit of the reader, and are neither paid for nor actuated by our advertisers, we are compelled by the Postal Laws to mark them as follows:—"Adv." and "Not Adv."

Reported by Wm. Wolff

Mr. Barman of Salt Lake Photo Supply Company entertained quite a few Elks as they passed through, going to the convention at Los Angeles.

Denver dealers are all very busy with summer tourist trade.

Z. T. Briggs Company of Kansas City, have improved their store and have added some new clerks.

Mr. Eisleben of Hyatt Supply Co., St. Louis, Mo., is as jolly as ever. Miss Linsay is still his secretary. All hands were very busy when the writer called on them.

Called on Francis Bruguiere while in New York. He has a studio on Fifth Avenue and reports business very good.

Mr. Huesgen of Herbert & Huesgen, New York, is on his way to Europe. Will return some time in September.

Mr. A. Rothschild, formerly with Houch Album Co., Boston, has taken charge of the Camera Department of Schnellensberg's Department Store at Philadelphia.

Mr. Bob Lieber and family of H. Lieber Co., Indianapolis, went to the Coast for a vacation this year.

Met Mr. F. E. Colwell of Albany, N. Y. He has a large photo and framing business. Mr. Colwell came to San Francisco as early as 1872 and sold mouldings to people like Sanborn, Vail & Co., and S. & G. Gump.

While in Boston renewed my acquaintance with Mr. Woodbery of Pinkham, Smith Co., Mr. Graham of Robey-French, Mr. Wanson of Andrew J. Lloyd and Mr. Ennis of the Defender Photo Supply Co.

Mr. Green, who has the Burke & James New York branch, showed the writer through his place. Will say it is very well

kept and up-to-date. Mr. Saubert, formerly with Marsh & Company, San Francisco, is also connected with the branch.

J. L. Lewis, New York, is still selling lots of Seltona paper.

Now for the weather report—very hot in the East and was very glad to get back to the breezes of the Pacific.—Advt.

The View Finder

In this monthly announcement of the California Camera Club, we learn, this club was incorporated in April, 1890.

The California Camera Club is the second oldest camera club in America. So far as is known, it is the largest in the world.

Believing this, and living in the land of sunshine, the members have a hard time to restrain themselves from "whooping her up." We admire their self restraint, (that also means we admire ourselves), for our sympathies are wholly with them.

During the present year members have exhibited at every salon in the United States, several in Canada and across the waters. Among its membership are some of the leading pictorialists in this state. Six international salons have been held under the auspices of the C. C. C.

Demonstrations, lectures, representative exhibits from the Associated Camera Clubs of America, one-man shows—these are a sample of the monthly calendar used to further the knowledge of the art of photography.

With the record the members possess, and the place the club holds in the photographic world, it is satisfied that all success has been achieved through cooperation of the members and without outside support or patronage.—Not Adv.

NOTES AND COMMENT

Assistant Photographer (Wet Plate).

United States Civil-Service Examination

The United States Civil Service Commission announces an open competitive examination for assistant photographer (wet plate) on August 3, 1921. A vacancy in the Engineer Reproduction Plant, Washington Barracks, Washington, D. C., at \$1,200 a year, and vacancies in positions requiring similar qualifications in the Federal classified service throughout the United States, including the apportioned Departmental Service at Washington, D. C., at this or higher or lower salaries, will be filled from this examination, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

Residence and domicile—Applicants may be examined at any place at which this examination is held, regardless of their place of residence; but only those who have been actually domiciled in the State or Territory in which they reside for at least one year previous to the examination, and who have the county officer's certificate in the application form executed, may become eligible for permanent appointment to the apportioned service in Washington, D. C.

Applications—Applicants should at once apply for Form 1312, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C. Applications should be properly executed, excluding the medical certificate, and filed with the Commission at Washington in time to arrange for the examination of the applicant.

The exact title of the examination, as given at the head of this announcement, should be stated in the application form.

Preference—Applicants entitled to preference should attach to their applications their original discharge, or a photostat or certified copy thereof, or their official record of service, which will be returned after inspection.—Not Adv.

Kodakery for June

The June number of this entertaining and instructive little magazine has the usual appeal to the amateur photographer. There are many child pictures scattered among its very liberal supply of illustrations.

An excellent and instructive article is "Photographing Flowers in Field and Garden." Many of these flower studies are made with the Kodak Portrait Attachment and hand cameras; they are beautifully done. The great advantage of this attachment besides making the actual flowers larger than they would otherwise be without its aid, is the fact that the background is thrown into soft focus or out of focus—if you prefer that name and thereby we secure that artistic relief, that emphasis to our principal object. Everything else being softened down, the eye is not bothered by detail unessential to the picture.

If some of our friends who have been so kind as to contribute to that page in Camera Craft, "Our Wild Flowers," were to look these pictures over, they would glean information of value.

There is an article on "Buildings as Backgrounds for Out-door Portraits," which makes good reading, as the home portrait will ever be a subject of interest to the army of camera users.

"Children and Their Chums;" here are two pages of pictures of interest to everybody. A chapter on self portraiture also claims attention. Almost a comedy, is a picture and article on "Wild Bird Life."

Readers should not overlook "Recomposing by Enlarging," a valuable article for the novice; everybody in fact has some negatives that can be made to yield better pictures by enlarging a portion of that negative, instead of printing from the whole of it.—Not Adv.

The London Salon of Photography

Intending exhibitors at the London Salon are reminded that all pictures must be received by the Hon. Secretary, Wednesday, August 31st, 1921.

Conditions of Entry

No. 1. Pictures from exhibitors in the British Isles must not be framed; but may be mounted. Each picture must bear on the back, clearly written, (a) name of artist; (b) number and title of picture; (c) price, (if any); corresponding to particulars on the Entry Form.

No. 2. When mounts are employed, they should conform to the following sizes: 15x12, 20x16, or 25x20; but no mount to

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exceed 25x20; and it is suggested that white or light-toned mounts be employed wherever possible.

No. 3. Pictures from abroad must not be mounted (or framed), but should bear full particulars as above.

No. 4. Pictures which are sent unmounted will be suitably mounted by the Salon Committee, and all accepted pictures will be shown under glass.

No. 5. All pictures should be sent by parcels post, packed flat, and properly protected with stiff cardboard and adequate wrappings, addressed to:

THE HON. SECRETARY,

The London Salon of Photography, 5A, Pall Mall East, London, S. W. 1—Not Adv.

The Photographers' Association of the Pacific Northwest

We are in receipt of a letter from A. T. Bridgman, secretary-treasurer of this association, of interest to intending exhibitors at the convention, to be held at Vancouver, B. C., August 2d, 3d, 4th, 5th.

The booths will be built complete for your use, no further expense on your part being necessary. The cost of entry of your exhibit into this country from the United States will be \$2.50 for the whole exhibit.

Certified invoices will be necessary, which will have to be sworn to and the exhibit will be cleared from customs without any delay. Please address all exhibits to the Photographers' Association of the Pacific Northwest, care of the secretary-treasurer. The association will go bond on your exhibit to meet the requirements of the customs officers.

Please wire by night letter, stating how many spaces you will require, with first and second choice regarding location, and in your wire state the name of the men who will represent you at the convention.

Your immediate action in this matter will be appreciated by the executive board.

—Not Adv.

With the Camera

(Notes from the Illinois College of Photography and the Bissell College of Photo-Engraving, Effingham, Ill.)

President and Mrs. L. H. Bissell have just returned from an automobile trip of several hundred miles. They report considerable road building in different sections, which will, when completed, greatly add to the pleasures of motoring. The longest stretch of concrete highway over which they traveled, was from Chicago to Danville, Illinois, 137 miles.

June is always the month of brides and roses, and this year was no exception, so far as the I. C. P. is concerned. Mr. Larry M. Cranford has just returned from Shreveport, La., where he was united in marriage to Miss Correne Gewin.

The tennis court is a busy place these warm days, and is frequented by many "experts in the making." Prof. Everett R. Eaton seems to hold the honors thus far.

An announcement has been received by us stating that Wilfred Kingdon, weight nine pounds, has just arrived at the home of Mr. and Mrs. Floyd J. Kingdon of Spencer, Iowa. Mr. Kingdon is an I. C. P. graduate of 1920. Congratulations.

The June attendance this year was the largest we have ever had for the month of June. It seems that Photography is becoming more popular each day, and those wishing to take it up as a profession realize the best way to learn the work is in an institution of this kind.

Students and Faculty were considerably and agreeably surprised when Carl H. Mulder and Miss Katherine J. Boyle "stole a march" and were quietly married last week. We have since learned that the romance started before they entered the college, dating back to the time when Mr. Mulder wore the Navy uniform. The groom was so rejoiced, he saw that all were treated to either cigars or candy.

It is with pleasure we read that at the meeting of the South-Eastern Photographers' Association, held in Atlanta, Ga., in May, C. W. Dishinger was elected President. Mr. Dishinger will be remembered as a former student and instructor.—Adv.

CAMERA CRAFT



SAN FRANCISCO
CALIFORNIA

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A Photographic Monthly

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Expirations—Subscriptions to Camera Craft are discontinued on date of expiration. The date on the address label on the wrapper shows the time to which each subscriber has paid. Thus: Jan. 21, means that the subscription expires with the number dated January, 1921. ¶**Renewing**—In renewing a subscription, do not fail to say that it is a renewal, giving name and address just as now on the address label. ¶**New Address**—In notifying us of a change of address, give both the old and new address. Should you miss a copy through change of address, advise us of the fact, and another will be gladly sent. ¶**Dealers**—All photographic supply dealers and new dealers are authorized to receipt for subscriptions in our name.

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All Your
Negatives

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Here is Cyko in a brand-new handy package, devised for those who seek the best possible print from every negative.

The package contains a supply of Studio Cyko in all three grades, as follows:

Two dozen sheets of *Contrast Cyko*, $3\frac{1}{4} \times 5\frac{1}{2}$, for weak, thin under-timed negatives, which all amateurs occasionally obtain, or for negatives which are flat from overexposure.

Four dozen sheets of *Normal Cyko*, $3\frac{1}{4} \times 5\frac{1}{2}$, for negatives normally exposed and normally developed.

Two dozen sheets of *Soft Cyko*, $3\frac{1}{4} \times 5\frac{1}{2}$, for extra-strong or contrasty negatives, or for soft prints from normal negatives.

In addition, there is a complete set of six black paper masks, for making prints with white borders from all the standard film sizes, $1\frac{1}{8} \times 2\frac{1}{2}$ to $3\frac{1}{4} \times 5\frac{1}{2}$, and a complete instruction book, the *Cyko Manual*.

Paper enough for 96 postcard-size prints or 192 prints of vest-pocket sizes—in the *Cyko Combination Package* for \$1.00.

Ask your dealer or use the quick-service coupon.

For better prints from all your negatives, use *Cyko*. In the *Combination Package* will be found a price list of all the surfaces and sizes.

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Gentlemen:

I inclose one dollar for a *Cyko Combination Package*, as advertised. Please send it to me promptly at the address below.

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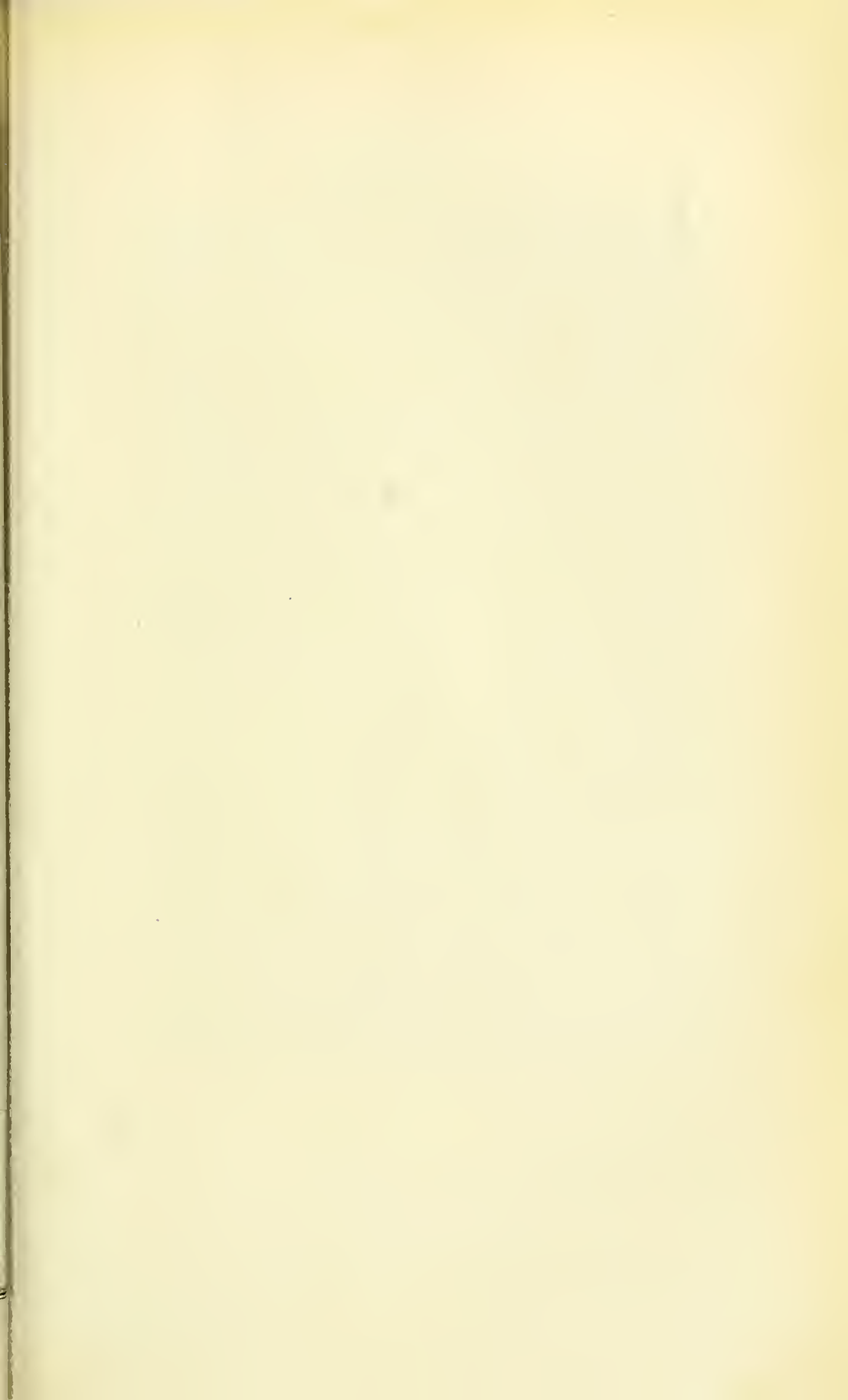
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ANSCO COMPANY
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"THE MINISTER'S WIFE
(Gum Print)
By NANCY FORD CONES

CAMERA

CRAFT



A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief

EDGAR FELLOES,
Associate Editor
CALIFORNIA

CLAUS SPRECKELS BLDG.

SAN FRANCISCO

VOL. XXVIII

JULY, 1921

No. 7

Emporium Photographic Salon

By Edgar Felloes



With Illustrations of the Prize-Winning Pictures

The following is a list of winning pictures at this Photographic Salon.

First Prize—P. Douglas Anderson, with his picture entitled "The Hill Top."

Second Prize—Miss Edna Langlois, "At The Water's Edge."

Third Prize—Miss Sophie Louise Lauffer, "The Crow's Nest Restaurant, N. Y."

Fourth Prize—G. H. Harding, "The Shore Line."

The following pictures were distinguished by Honorable Mention:—

No. 1.—P. Douglas Anderson, "A California Ranch" 2.—P. Douglas Anderson, "Wanderers From Home." 3.—H. Cyril Dusenbery, "Rain." 4.—Edgar Ingram, "Ripples." 5.—Edgar Ingram, "Lovers Lane." 6.—L. A. Goetz, "The Light Of The Cross." 7.—Edward De Witt Taylor, "A Portrait." 8.—H. A. Hussey, "Newspapers." 9.—William Gordon Shields, "The Orange Girl."

It was in May last, that J. Cevilli, Assistant Merchandise Manager of The Emporium, San Francisco, with Henry W. Boekenoogen in charge of The Photographic Supply Department, his very able lieutenant, undertook the organization of a photographic contest. This was the first one for The Emporium; it was a new undertaking for these gentlemen; and there were croakers—including the writer—who declared "an exhibition in July?—not enough time!"

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On May 23rd there appeared a notice in Camera Craft announcing The Emporium Photo-Contest and it contained this important bit of news "Contest closes July 25, 1921."

The plan was started, pictures were expected of course, but the time was short, and several members of the Pictorial Photographic Society of San Francisco made a special loan exhibit, to help make a showing. These pictures it must be understood were not entered for competition and they were hung on separate screens. No one knew what was coming however, it looked slow at first, but as the days wore on packages began to dribble in, but the last week things began to happen.

The Emporium management had set apart their large assembly hall for this exhibition, it is just such a place for shows of this kind. At one end is the stage, and the three remaining walls for the pictures afforded ample room for display—so we all thought.

Packages seemed to arrive from everywhere including, Little Old New York. Is amateur photography a live pursuit? The answer may be found at The Emporium. Does the word Amateur mean a novice a beginner? This Salon can answer that question also.

On July 26th The Emporium Assembly Hall, with its surprisingly good photographic exhibition, well arranged, was opened to the public—On Time.

There are some questions all exhibitors are naturally interested in:—What were the winning pictures like? How were they judged and by whom?

The three judges chosen for this exhibition were, Sigismund Blumann, Efficiency Engineer; Jesse Banfield, Photographer; and Edgar Felloes, Associate Editor of Camera Craft; all practical photographers of long experience. These judges were selected by C. A. Love, Chairman of The Prints Committee, of the California Camera Club.

It is with pleasure we present to Our Readers and the exhibitors at this salon engravings of the four prize winning pictures. There is a quality in the well made photographic print which does not reproduce by the half-tone process. Readers will gain however, an excellent idea as to conception and composition, from these engravings.

At the appointed time we, the judges, entered the Assembly Hall in company with Henry W. Boekenooogen, who pointed with a satisfied air to several piles of pictures on tables. "There are the pictures gentlemen," that is what he said—but being something of a mind-reader, the writer felt what he meant to say was—"I have had a hard time, now you folks dig!"

We approached the piles in silence, they were healthy, husky looking; they threatened. A casual examination revealed the fact that many had taken the word amateur as synonymous with novice. A goodly number of pictures were by novices. This is not said in reproach, not by any means. We were all novices at one time, and the novice who boldly enters his pictures in competition is more to be admired than the novice who fears to.

To the beginner the writer would say, persevere and study, your time will come, it simply has to.

EMPORIUM PHOTOGRAPHIC SALON



"THE HILL TOP"

FIRST PRIZE

By P. Douglass Anderson

The pictures were judged by what might be called the elimination method. Each picture was examined by all three judges, no picture was rejected without the approval of all three judges, and this is how we arrived at that unanimity of opinion. In every case of a difference of opinion, that picture in question was set to one side; by this means we disposed of one half of the exhibit. Please remember the discarded prints, were rejected by the judges—unanimously.

The remaining half of the exhibit including those doubtful ones, were then divided into three large piles for convenience in handling, and each pile in turn was examined as before. The prints on which all three judges agreed were placed apart, and any print favored by one of the judges was placed with them, for the next round. Naturally as the numbers grew less and the quality increased, these favored pictures dropped out, they simply could not stand the pressure of the better pictures behind them, pictures on which all three judges had agreed.

After two and a half hours of steady and conscientious work the judges took a recess for one hour, leaving a collection of 97 prints to be worked over on their return.

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There is a human side to this thing; as the piles of rejected prints grew, it became very apparent that we were culling pictures that represented thought and effort, not to say anything of a certain amount of actual



SECOND PRIZE

"AT THE WATER'S EDGE"

Edna Langlois

affection for the child of fancy. Speaking for himself, the writer, will acknowledge a feeling of regret for those pictures—the hard fighters—that appeared before the judges again and again and then finally they dropped out. Honestly, it was depressing. We all love the fighter against odds, that was the feeling towards these struggling prints, they almost seemed to live.

EMPORIUM PHOTOGRAPHIC SALON

At the expiration of the hour of grace the judges returned to their task. From now on it would become more exacting. By repeating the process of elimination as described we finally had a few prints left, just



THIRD PRIZE

"THE CROW'S NEST RESTAURANT, N. Y."

Sophie Louise Lauffer

thirteen to be exact. It so happened that way and among these thirteen were the four prize winners, the balance of nine were to receive honorable mention, which they richly deserved. After another round, we had remaining "a wilful six" and four of these became troublesome. The first and second prize pictures could take care of themselves, so thought the Judges,

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but the four remaining ones were decidedly hostile to each other. It took about twenty minutes to reduce this four to two.

The Judges had now devoted 5½ hours to judging the pictures sent to The Salon, their work was now finished, and the writer can positively



FOURTH PRIZE

"THE SHORE LINE"

G. H. Harding

attest, there was absolutely no favoritism; the pictures won on their merits.

The Emporium is to be congratulated on the undoubted success of their exhibition. It will be productive of good, by encouraging this fascinating hobby. Those amateurs who were able to attend the exhibition were fortunate, they should be able to glean something of value therefrom.

Just Cats and Things

By E. C. Clement



With Illustrations by the Author

Taking it all in all, do you realize that the common things, like the household cats, make some of the best subjects we have to photograph?

Cats are as full of moods as they are said to be of lives, and if given half a chance they will see to it that there is no race suicide, so you will not run out of material.

"GETTING HER BACK UP"

TOM DICK AND HARRY



COMFY

"HIS WHISKERS TICKLE MY FACE"

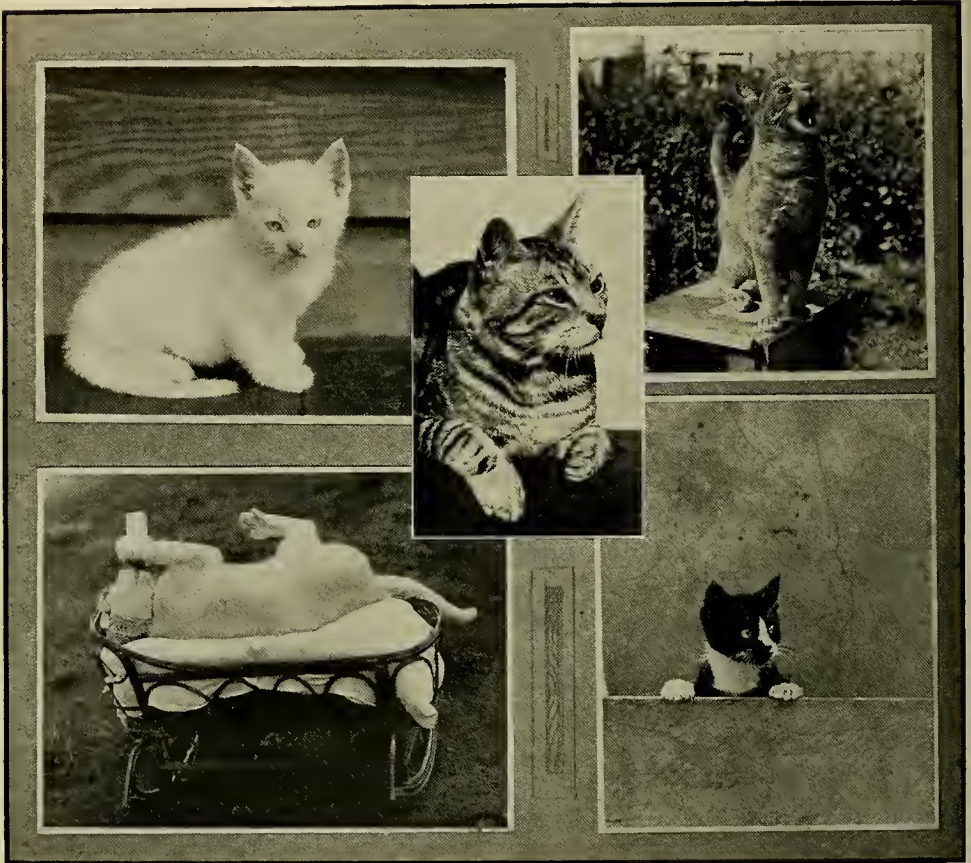
When we had three little white kittens, and a couple of gray ones, in one family group they were the subjects of many interesting and amusing snaps. I hung an Indian basket on the wall one day, about four feet from

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the floor, and put the white trio, Tom, Dick and Harry, in it. As soon as they had settled down I snapped them with my Graflex, using a Graflex plate and giving it an exposure of $1/25$ at F-5.6. A life-size enlargement in Sepia on my wall is a very attractive picture.

"NO ONE LOVES ME"

OLD BILL SINGING



THE BABY WITH HIS BOTTLE

"OLD BILL"

"WHO CALLED ME?"

One of these kittens, I believe it was Dick, did not seem to get along very well in his growth, and usually assumed the pose of "No One Loves Me," as shown by his portrait. Being backward in size the children decided to raise him on the bottle, and it was astonishing how soon he learned to hold his bottle during meals. They would put him in a little cradle, give him his bottle, for which he would howl lustily, and a baby was then no more contented than he. Of course he was snapped a number of times with his bottle and the resultant prints have been interesting and amusing to all.

While the white kittens were in the basket the girls in grey were much dissatisfied because they had to remain on the floor, and as soon as we took the boys out and put them into it they immediately settled down and were "comfy."

JUST CATS AND THINGS



A "SAND FLEA"

Old Bill was always a good subject and was ready to pose before the camera as promptly as a movie actress. One of his characteristic poses is shown herewith. Mother taught him to sing and at command he would yowl lustily, opening his mouth wide like all good singers, so I snapped him as he joined in on the chorus. Being out in the yard on a bright day 1/160 at F-8 was sufficient.

Whenever a strange dog appeared about the place while the mother cat was around she showed her resentment in true feline style by "getting her back up" about it. A hasty close-up with the Graflex caught her in the mood. 1/90 at F-11 did the trick. There is an optical illusion in that picture, her ears appear to be turned wrong-side out.

Most children are fond of live pets and mine were not an exception. The boy would carry a kitten about on his shoulder to the apparent satisfaction of both. When he halted for me to make a snap he could not help laughing because the kitten's whiskers tickled his cheek. This one was a maltese and the picture being made in the shade, I gave it 1/10 at F-16.

One of the kittens we had was always full of "pep" and the children named him "Jerry." One day he had crawled into a big box and could not be found. The children began calling his name loudly and suddenly he appeared clinging to the side of the box, with an inquiring look as if saying, "Who called me?" A quick exposure of 1/110 at F-5.6 caught the expression as well as the evidence of pep in his make-up.

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We had another "Jerry" in the neighborhood that was just the opposite when it came to pep. One had ample time to get his expression, as it was always of an inquiring and wondering kind that took considerable to disturb. 1/25 at F-16 caught him easily.

While at the seashore one day I noticed another sort of a family pet, and from its diminutive size I took it for a "Sand Flea" and secured a good negative of it at F-16 and 1/20. To have made it faster would have "stiffened" the water, made it hard, losing the effect of the frothiness.

"BEAUTY AND THE BEAST" "JERRY"



A FLASHLIGHT OF A NIGHT BLOOMING CEREUS. THE LARGER FLOWER IS A "CLOSE UP" OF THE BLOSSOM

Just a word about the flowers about the home. A Night Blooming Cereus makes a most interesting subject, especially as you get it best at night and therefore must use the flash lamp. I tried it and was more than pleased with the results. First, I made one of the whole flower, which was about eight inches across, and then, as they say in the movies, I took a "close-up" of the interior of the blossom. The flash was held well back and diffused with ground glass.

Distance has a great fascination to most of us, but I feel that there are many interesting subjects for our cameras right here at home, if we only learn to look for them. I have many beautiful things taken all over the country, but I notice that when I show a batch of prints to interested ones those that attract them most are the simple things like the illustrations here.

OUR WILD FLOWERS

Kindly Contributed by Our Readers

VII. WILD WHITE LILAC

Up in the Sierra Nevada Mountains, at an elevation of 2,000 to 3,000 feet, flourishes the Wild White Lilac in its graceful way. These bushes may be found here growing 10 feet high, with blossoms so abundant, and heavy with nectar, that the branches are often weighted half way to the ground.

On sunny days, the clustered flowers seem alive with crawling things. Here the entomologist will find those creepy objects that are a delight to his heart. There are bugs of every sort and flies a plenty, also ants innumerable and the very busy bee, all taking their fill and growing fat; while watchful birds catch, the presumably dainty morsels, in the honey laden insects, dwadling home.

VIII. THE TAR-WEED

Another wild flower with a different kind of stickyness is the Tar-Weed. This plant derives its name from the peculiarity of its stems always exuding a sort of gummy sap. It grows from 1½ to 2½ feet high, showing flowers of a rich yellow color with their centers of a sepia-brown, to adorn its almost leafless branches. The size of the blossoms are about 1½ inches in diameter, which open in the early morning but strangely, by ten o'clock the petals begin to close again. — Lewis F. Hile





The Gum Process in Portraiture

By Professor Daniel Cook

(University of Cincinnati)



With Illustrations by Nancy Ford Cones

A friend of mine, living in the country distant some twenty odd miles from Cincinnati, knowing that I was an artist, was anxious to have me see his home, its surroundings, and his collection of paintings.

After having shown me his treasures, he brought out a small parcel of photographs. I was amazed at these, for here indeed was a surprise in the photographic art. There had been no effort at display, for they were small in size and nearly all unmounted.

I have traveled a great deal, and have seen many exhibitions of photographs in Europe and America, but I have yet to see anything that approached the artistic qualities of these prints. I have done a good deal of experimental work in photography, especially with reproductive methods, and I soon observed from the texture and the variety of tones that the prints I had in hand were gum prints, but they were so far in advance of any gum prints I had ever seen, that they were in a class of their own.

I did not delay long in getting acquainted with Mr. and Mrs. Cones of Loveland, Ohio, the makers of these prints, who had brought the gum process to such perfection.

I soon had the secret of their success, for they were not at all reticent in letting me know all about the process, their methods of working, and the trials and failures they had encountered in their early efforts. When I summed up all they told me, I found it was the same stenciled rule that the great artists and musicians—in fact, all successful people, have used—

“The capacity for taking great pains.”

There is not a photograph that Mr. and Mrs. Cones take up on which they do not expend infinite pains. After having studied the model in many poses, they try different light effects, then the background, until every detail meets with the approval of both. I have in mind a little Dutch peasant girl, entitled, “The Sampler,” which appeared in this magazine about two years ago, taken to get the effect of sunlight on the wall. The pose is perfect and any one familiar with photography will see that the time for exposure with this effect of light would be of very short duration indeed.

In reproduction almost all photographs suffer. This is particularly true of the gum print, perhaps more so as the paper used is generally rough, but the original print of the little Dutch girl has the qualities of the paintings by the old Dutch painter, Van der Meer.

THE GUM PROCESS IN PORTRAITURE

Mrs. Cones told me, in a casual way, that she had studied that picture for over a year. Nor is this unusual, for some of her subjects have been studied for even a greater period of time. The little Dutch girl was posed at all hours of the day, from five a. m. till dusk. Nor was this all, for when the light effect was finally decided upon, Mrs. Cones saw that by removing



HARRIET JANE

the door she could improve the light, so the door was "taken off its hinges."

Some years ago Mr. and Mrs. Cones attended an entertainment at which the minister's wife was present. The quick eye of Mrs. Cones soon saw that here was a rare subject. The refined aristocratic profile of the face and the cap and gown were suggestive of the ladies of the Colonial period

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of our country. To broach the subject of photography to the lady was a delicate matter, but after several meetings during the following year, Mrs. Cones finally expressed her wish to her, who readily consented. The result was the charming photograph of "The Minister's Wife," which we all know and all admire. Mrs. Cones is ever on the alert, her heart and soul is in the work and no fine character ever escapes her. Even now and for many months she has been after an old hermit fisherman, but the subject is being approached carefully.

However, not all subjects are afraid of the camera. If they were, it would be difficult to get as fine a pose as we have in the picture of "In Days of Old, When Knights Were Bold." This is indeed a keen portrait of a gentleman I know. It is not alone a good likeness, but the pose, costume and all are exactly in keeping with the subject. This print in a brown has all the qualities of a Rembrandt painting.

To return to the gum process. It is perhaps the most interesting of all photographic processes. Many have tried it, few have succeeded with it, but Mr. and Mrs. Cones have told freely all the secrets of their methods and their success. To do justice to the subject will require an article by itself, which I hope to contribute to this magazine in the very near future.

"The Minister's Wife" will be found on our frontispiece.



A VILLAGE FOUNTAIN—MEXICO

Firelight Pictures

By Cobb X. Shinn



With Illustrations by the Author

When most people think of flashlight pictures, they think of them being made in a room only, but you will find that you can get many pleasing effects out in the yard. Instead of holding the flash up above your head, as is customary in a room, place it down on the ground at one side, being sure to get it behind the lense of your camera. You will find that this will give the effect of a camp fire picture.

To make it more realistic, you can tint the print. One of the best methods of tinting a picture to get a camp fire effect, is to buy a package of dye at the corner drug store—just common dye that is used for dyeing cotton or woolen goods—getting the most brilliant scarlet they have and make a weak solution and dip your prints into it, leaving them a minute or two, then remove them and lay them out to dry.

A few of these kind of prints will add a bit of dash and color to your Kodak book.



"HOME SWEET HOME"

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"IT'S A PICNIC"

Another way of getting a good firelight effect, if you happen to have fireplace in your home, is to place a flash-light powder down on the hearth, but you will find it a little more difficult than making the outside firelight picture as explained above. You will have to place a chair or a large sette between the camera and the flash-light powder because if you don't you will find that the light will be too strong and cause flare spots or halation. The above prints are good examples of how you can make firelight pictures with a flashlight, and also how a large sette was used between the flash and the camera to get the effect.

The way described is not the only method, the following is also recommended: Some readers may prefer flash sheets because they are less startling than the flash cartridge, effects may be secured by this means, equally good.

Contrast Papers

It has long been a source of wonder to note the popularity of contrast papers with amateurs. The contrast paper is a most useful paper for certain negatives, the manufacturers themselves do not claim more than that. If they could make a grade of paper suitable to all negatives they would undoubtedly do so, but in the very nature of things this is not possible.

More than one trade finisher has assured me amateurs prefer the contrast paper to any other, it makes the print "show up." There is no denying that, in very many cases the print shows up with brutal harshness, and this is supposed to bring joy to the photographer's heart. For a long time I have doubted the truth of this statement, I had thought the ever pressing demand for quick service was responsible for this seeming carelessness, now I know better.

It was a source of great surprise to meet so large a number of harsh prints in a recent photographic exhibition; their hardness killed them. Amateurs should remember there are two other grades of paper, the medium and the soft.—E. F.

A Striking Monument

By W. H. Moser



With Illustration by the Author

In Oakland Cemetary, Dallas, Texas, there stands a magnificent monument to the Dead Brothers of the B. P. O. E., and it is most fitting this memorial should tipify their emblem—An Elk.

“The Guardian of The Dead,” is in bronze and life size. It is in a metal as permanent as human ingenuity can fashion it; and as each generation of This Order shall Pass, this monument shall endure, to remind a new generation of That Brotherhood—The Benevolent Protective Order of Elks, of those gone before.



THE GUARDIAN OF THE DEAD

Technical

Time of exposure, April, bright sun, 3 p. m.; Plantigraph lins, stop f.16, 1/25th second. Hammer, blue label plate; Pro developer, in tray.

Print was made on Azo paper AA hard, it was developed with Metol - Hydroquinone. This print was made April 15th, 1921, on paper bearing expiration date July 1st, 1919.

(Note—We should like the reader to notice the age of the paper used. The print we received was clear and satisfactory, we doubt if it could be much better. This shows the keeping qualities of this paper when properly stored.

—E. F.



The Ideal Outfit

By Wm. F. Gingrich



Of the many kinds of cameras now available, what should be selected by the average amateur who has advanced a step or two beyond the snapshot stage in photography? Should his instrument be large or small, should it be of the graflex type, should it use plates or films, or should the amateur provide himself with a number of cameras of different kinds and sizes? He has often been told that his needs will best be determined by the kind of work he intends to do—that portraiture will demand a studio camera, nature study and newspaper work a graflex, architecture, a camera with a wide angle lens and a rising front, etc. But what is the most desirable outfit for the all-round worker who wishes to make pictures, and who has a limited amount of money, time, and energy at his disposal? The present writer, being an amateur of twenty-five years' experience, feels qualified to speak authoritatively on the subject.

The ideal outfit must be adapted to use both plates and films, it must be capable of producing pictures of ample size, and it must not be so heavy as to be burdensome. The writer once carried a 5x7 outfit into the Grand Canyon region, seventy miles from the nearest railroad. As a part of the trail was narrow and dangerous, only the most necessary articles were permitted to be packed. When the limited supply of plates was exhausted, it was weeks before another supply could be procured, and then only at great cost. Had the writer been equipped with the outfit here described, much better results would have been obtained with infinitely less trouble and expense.

An outfit intended to meet all reasonable requirements should consist of two cameras, one making pictures $3\frac{1}{4} \times 4\frac{1}{4}$ inches in size, and the other taking a 5x7 plate. Both should be of rigid construction and provided with long bellows, focusing screen, rack and pinion focusing device, rising and falling front, and swing back. The 5x7 instrument should have a reversible or revolving back. The smaller one should be fitted with a brilliant view finder and a focusing scale, for it will sometimes be used for snap shot work. Both cameras should be equipped with the best lenses the owner can afford to buy, preferably anastigmats, working at F:6.3, or better. The humble rapid rectilinear lens, however, is by no means to be despised, for in skillful hands it is capable of producing wonderful results. Each instrument should also be provided with a two- or three-times ray filter, and wide angle, enlarging, and portrait lenses of the supplementary type. A good heavy tripod will be required for the larger camera, as the instrument will not often be carried far from home. For the smaller camera, a metal telescopic tripod will answer, provided some means is taken

THE IDEAL OUTFIT

to prevent vibration during the time the exposure is being made. A focusing cloth of good quality and ample dimensions will serve for both cameras.

Most of the out-door work and much of the work done at home will be done with the small camera, the pictures afterwards being enlarged to any desired size. As this instrument will accommodate plates as well as films, flowers, line drawings, and practically all kinds of photographic work can be successfully done with it. When a long journey is contemplated, or when a great many pictures are to be taken before returning to the dark-room the plate holders will be laid aside and the film pack adapter used instead. Film packs are light and may be safely loaded anywhere in the daytime. Should the photographer's supply become exhausted enroute, however, it can easily be replenished at almost any cross-road store.

Many of the small sized negatives will no doubt prove worthy of enlargement. From many of them you may also desire to make lantern slides. For this no especial equipment is necessary, as the slides will be made by the contact method, in much the same way that prints are made on developing papers.

One of the most profitable and delightful processes in photography is the making of enlargements, provided suitable apparatus is available. If to the outfit here described a Brownie Enlarging Camera Illuminator be added, three methods of enlarging are made possible. Perhaps the simplest method is to copy with the larger camera and supplementary lens the whole or any part of a small print made on solio paper which has been burnished on the ferrotype plate. The advantage of this method is that printing in platinum, gum, or any other medium is made possible. Its one disadvantage is the impossibility of making a larger negative than the camera will accommodate.



SUMMERTIME

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Another method is to enlarge on bromide paper from either the small or large negatives. To do this, the ground glass (and the hinged door covering it, if there is one) must be removed from the larger camera, the back of which should then be fitted snugly against the front of the Brownie Illuminator and held in place by a strong rubber band. The negative to be enlarged is then placed in a plate holder from which the partition has been removed, and inserted in the camera. The image is then projected upon the bromide paper in the ordinary way. By this method pictures of any desired size can be made, but on bromide (or similar) paper only.

By the third method, a glass positive is made by contact, and from this a negative of any desired size is made by projection, the camera being used in much the same way as in making bromide prints. From the enlarged negative, it is of course possible to make prints in any medium. As only choice negatives will be enlarged, the method is much more economical in money, time, and energy than making large negatives by the direct method.

There will be times of course, when the 5x7 camera will be used for direct photography. At or near home, or when the larger instrument can be transported conveniently, it will often be preferable to use it instead of the smaller one.

It is apparent that practically any kind of photographic work can conveniently and economically be done with the outfit which has been described. A smaller camera than the quarter plate has been recommended by some. The writer has found that anything smaller is likely to prove somewhat difficult to manipulate. Not only is it unsteady on the tripod while being focused, but the plates and films are tedious to handle and develop. Furthermore, a pinhole or other defect in a small negative is much larger in proportion than one on a larger plate, and is usually more difficult to remove.

A word of caution about the use of the small camera. The ease and slight expense of making exposures tends to encourage careless work. If the amateur will take as much pains about getting pictures with the little camera as he would with an 8x10 outfit, he will be delighted with the results.



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The Recent Photographic Salon

The Emporium Exhibition is now closed and we have had some enquiries why certain pictures won and others "equally good" were ignored. Here we come up against the expression "equally good." This depends entirely on personal preference, based on individual knowledge. Individual knowledge is founded entirely on individual training. In short, no training, very little knowledge.

Many of the uninformed believe, the nearer to nature, the greater the art. This is not so. Were it so, the colored photograph would threaten the reputation of some of the world's greatest painters.

Art is not nature's image petrified; it is an interpretation of nature. That image, plus an artists personality may be art, without that personality, that stamp of individuality, it remains an image. What is there in the best music, in the best literature that makes the work live? Is it not personality, individuality? What quality must a photograph possess to make it better than another photograph? Would it not be individuality? Though it is very desirable that technique should be of a high order of excellence, that does not mean that technique should come first. Technical excellence is by no means rare in photography. Esthetic excellence is not so common. If a photographer can identify himself by his work, he has achieved wonders, because of the limitations of his medium. But on the other hand, if the name on the picture or mount is the only means that man has of identification, he remains "outside the pale."

Individuality then, is the "sine qua non" in all successful endeavor. If we are strong enough to be ourselves, we are somebody, if not strong enough, we get lost in the crowd.

This applies equally to pictorial photography. There were many pictures in this exhibition that as photographs left little to be desired. They were what some would call "the equally good." It will perhaps startle some of our newer recruits if they were told, that work technically every bit as good as this shown, was done 40 years and more ago. We did not have the extraordinary speed of plates, nor the efficient lenses and shutters of today, outside of that, these photographs are much the same today as of that long yesterday. The improvements we have, are owing to the enterprise of manufacturers and not to ourselves.

Is it not time then, if we are interested in the more modern movement known as pictorial photography, that we should strive for effects that are

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different? Should there not be more of the individual and less of the instrument apparent in our work? The individual is important, he has a soul, the instrument is not so important, it had its innings long, long ago.

We do not by any means decry the technically perfect photograph, there is a place for it and that place is in commercial art. Here, it is a giant, a power in itself, the same applies to scientific work. But where the heart's desire is for the beautiful, the poetic and the suggested in pictorial expression, the brutal photographic realism must be exchanged for a pleasing individuality of treatment.

There are other matters of pictorial importance that merit one's consideration. We noticed the solid shadow in some of the photographs, these are depressing. There is no such thing as a solid shadow in nature, it is always transparent. We should not permit it in our pictures; the more of these solid shadows, the less atmosphere is apparent in our work. Another thing over common, were blank skies. The more white paper showing in our pictures, the less atmosphere also, and some of these "equally good" pictures offended in both counts.

The ray filter was introduced to help us out of this difficulty, but some photographers seem to think, if there are no clouds, there is no necessity for a ray filter. The fact is, we need it just as much to prevent these blank or baldhead skies, which have ruined many a picture.

Another point worth mentioning is, the over printing of skies; and the same effect is produced by over correction. By over correction we mean the use of a filter, too deep in color for our requirements. If we have a blue sky and we use an over strong filter of dark yellow or orange, that blue in our print will show as black—now black is no nearer to blue in monochromatic value than white is, they will both have the same effect, they will destroy atmosphere. This would lead us to say, to fix it in the novice's mind, a landscape picture without atmosphere is simply—No Good.

The picture in this exhibition that was awarded the first prize was far removed from all those faults just spoken of. It is very simple in composition, broad in treatment and full of atmosphere.

While the writer was in the exhibition hall making notes, a visitor and a stranger remarked to him, "What is there in that photograph that took the first prize, I see very little in it." To this we replied, we should not wonder but it was just that, which attracted the Judges in its favor. The little there was is so essential, that none of it could be taken away, without destroying the picture. To this answer, my questioner replied with—a great—big—OH!

On another occasion a party of young ladies, examining the winning pictures came to this one, "The Hill Top" and one of them remarked, "Oh come on girls, there is nothing in that picture, I can show you a lot better ones!" All of which goes to show, that in pictorial art, judges are a plenty.
E. F.

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

Principles and Mechanics of Mounting

(Report of a lecture before the Croydon Camera Club by Mr. Vivian Jobling.)

The club is fortunate in having among its members many of mechanical bent, for photographic societies cannot live alone on the eternal cycle of pictorial dissertations without surfeit, or mainly on lantern-shows without atrophy; stock demonstrations for the beginner must necessarily be limited; scientific papers are Greek to the majority, and new processes and procedures rival total eclipses in their frequency. Almost equally rare is the scientist who can, or will, deign to descend to the level of the ordinary run with popular expositions of the recondite. But the mechanical man introduces variety in many directions, usually having a host of things up his sleeve either directly or indirectly connected with photography, and, moreover, can show "how it is done," ever of interest, even if one cannot hope to go and do likewise.

Of this sort is Mr. Vivian Jobling, who recently highly interested all with a capital lecture-demonstration on "The Mounting of Photographic Prints," a model of orderly sequence. The purpose of mounting, he said, is to separate the print from its surroundings, to provide an appropriate setting, to bring out by emphasis its good qualities, or minimise any imperfections. Simplicity is to be aimed at, and consequently the mount should never compete with the print for first attention by being too ornate or elaborate, or overpower it by being too heavy. In most cases the mount should harmonize with the tint of the picture, unless color contrast is desired to emphasize its tone. Generally speaking, the mount should not be lighter than the highest lights, nor darker than the deepest shadows. There are, however, cases when

it is advantageous to lower the former by using a lighter mount or to lighten the latter by employing a darker.

A perfect print of steel-engraving quality can be placed on mounts ranging from white to black without error, other conditions being favorable, but few photographic prints can stand either extremes; also, a mount of the same prevailing tone as the picture is rarely effective. Finally, he said, never do a thing merely because it is the fashion, for such a course is fatuous. The present-day almost unlimited choice of mounts is sufficient to satisfy all needs. Very suitable for the rough usage prints are subjected to in circulating portfolios are hand-made mounts.

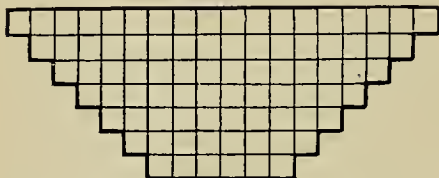
The adoption of a standard size will be found useful for storing in portfolios or substituting prints in frames, especially so if the ratio 1 to $\sqrt{2}$ is employed, as suggested by Mr. Watkins for dry-plates, for the mounts can then be halved without altering the relative proportions of length to breadth. Music size (14x10) fulfils this condition, and corresponds with commercial cases and portfolios.

When placing a print on a mount more margin should be allowed at the bottom to prevent the familiar "dropping" effect—considerably more when it is desired to suggest space below, as in a bust portrait or large head. To emphasize a panel effect allow less at the sides than the top. Lateral decentering is generally undesirable, though in the case of unbalanced prints, or to break too even symmetry, the device can occasionally be employed.

An ingenious and easily-constructed contrivance, devised by the lecturer, for correctly placing prints on drawing mounts was shown, and is indicated in the figure. A drawing, slightly longer than the largest mount in use, is made on squared paper

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and cut out. It is laid close to the top of the mount and parallel with it, and centered laterally which is effected at a glance. The print is then adjusted to the guide, the latter slipped from under, and two pencil dots made at the upper corners of the print, so that after the adhesive is applied it can be laid down again in identical position. Mr. Jobling's guide was much longer, and had many more and shallower steps than shown in the figure, which, however, sufficiently illustrates the principle.



Border-tints, he said, should only be used for a definite purpose, the over-ornate being carefully avoided. They have value when the mount chosen is of the predominant tone of the picture, for here a lighter or darker border-tint separates print from mount and prevents one merging into the other. Also, a darker border-tint will brighten the high-lights without suggesting the heaviness which a mount of the same depth may introduce. Similarly, a light border-tint can be used to lower the high-lights when a light mount may be too powerful. A slight variation of color in the border is also often useful to counteract or emphasize the color of the print.

Mr. Jobling then passed on to a review of the various methods and adhesives employed in mounting, favoring attachment at the top edge of the print. Dry mounting was, of course, ideal, and, in the absence of a press, a flat-iron—the heavier the better—may be employed. Personally, he had not been very successful when using a flat-iron with commercial tissues, and made his own, which never failed. He employed a formula given some years ago in the "Photographic Annual," but with modifications which meant all the difference between success and failure. The amended formula is as follows:

A

Orange shellac.....4 oz.
Methylated spirits(fl) 6 ozs.

B

Gum Elemi1 oz.
Canada balsam1 oz.
Methylated spirits(fl) 8 ozs.

Dissolve separately and mix, when the solutions will be found to bulk to about 18 ozs. The Canada balsam is the thick solution (of greater viscosity than golden syrup) stocked and supplied by chemists.

Japanese tissue, obtainable in sheets, 11x8 $\frac{3}{4}$, is dipped sheet by sheet in the mixture, surface liquid removed by dragging the sheet against the edge of the dish, and hung up to dry. A convenient way of doing this is to cut some narrow strips of common strawboard and range them one over the other in narrow staircase fashion. Adhesive is applied to the "stairs" with a brush, when each strip will readily pick up a piece of the tissue. In answer to a question, he said the tissue is sold by most stationers for copying letters, the pre-war cost being 2s. a ream; that of the solution 1d. an ounce.

In the discussion Mr. H. P. C. Harpur modestly intimated that he was content to take a back seat in the mechanical line when Mr. Jobling was concerned, and then as a corrective immediately superimposed himself on lecturer and audience on various art aspects. He insisted that fashion is a most powerful asset in the art business. It powerfully governs the tonality, shape, and size of pictures, mounts, frames, collars, neckties, jumpers, and strikes; in fact, he said, fashion is so powerfully powerful that all are powerless to avoid it. Mr. E. A. Salt, whilst recognizing the great improvement effected in recent years in mounts, had never come across any of a really neutral grey of British make, though he had seen some hailing from the other side of the Herring pond. Mr. L. J. Hibbert, from a scientific standpoint, reproved Mr. Jobling for not having spectroscopically examined the light reflected by mounts, and was in turn chided by Mr. J. W. Purkis for overlooking sources variability. The chairman, Mr. A. F. Catharine, after some terse allusions to these scientists, proposed a hearty vote of thanks to the lecturer, which was carried most heartily.

A PHOTOGRAPHIC DIGEST

Dark Backgrounds

The Ex-Cathedra note on dark backgrounds has evidently aroused a great deal of interest, and it is quite evident that it deals with a problem in which we are all interested. I am afraid I do not agree with Mr. Godfrey Wilson's suggestion to pose the sitter so close to the background as to cast a shadow upon it to give some gradation to the tone of the background. I think that when a dark background is used it is best to keep the sitter as far from it as possible, in order to give the effect of space between the background and sitter. In fact, I often place the sitter in the middle of the studio and use one end of the room, which is rather dark, with dark curtains and dark old furniture as a background. It is, of course, very much out of focus and generally "without form and void" in the print, but with considerable variations of tone (using the word tone in its strict pictorial sense, which has no reference to color).

By moving the camera it is possible to get the darkest part of the background against the light side of the figure; or if movement of the camera will not produce the right effect, a piece of furniture, such as a dark settle, can be moved until the desired result can be obtained. By this arrangement perspective is produced in the background, which gives relief to the figure and prevents the objectionable effect of the figure having been cut out and pasted upon a piece of black paper. I think the background should never be as dark as the darkest shadows in the figure, and also with light backgrounds the highest light in the figure should be lighter than any part of the background; and even in sketches (which, as a rule, have no claims to artistic effect) the background just round the figure should be darker, if only in the slightest degree, than the highest lights of the figure.

Some photographers go to the expense of constructing a cave lined with black velvet and pose the sitter in front of it, in order to make the figure stand out from the background, but this is just what it doesn't do; it produces the cut out and pasted on effect I have already referred to. When managing a studio in London I had

many arguments on this point with the business managers, but of course, I failed to convince them, and a velvet cave was constructed at great cost, and was a failure, as I knew it would be. And they also had pictorial (so-called) backgrounds painted with everything as hard and sharp as the edge of a knife, with the same result, the figure looked pasted on the background, and when I showed them sitters taken in front of a real Seavey background, in which everything was soft and broad, and the figures stood out from it in a delightful way, they weren't convinced. They tried to corner me once by bringing a beautiful print of an old man's head against a dark background, from which it stood out in fine relief, and they argued that the background was quite black, and so my contentions were wrong, but I was able to point out that the velvet collar on the old man's coat was blacker than anything in the background, but again they weren't convinced. So we each stuck to our own opinion.

When working up enlargements in which the background is dark I can lift the figure away from the background best by emphasizing the shadows in the figure, especially the dark shadows in the hair, until they are darker than most of the background.

—B. J. of Photography.

The Professional's Developer

As soon as I saw Mr. Jones' article about his developer I decided to try it, but as two gallons is rather a large quantity to make up for an experiment, I reduced it about ten times and made it up as follows:

Metol	3 drams
Hydroquinone	6 drams
Soda sulphite	3 ozs.
Caustic soda	1½ ozs.
Water	32 ozs.

It worked remarkably well when diluted to 1 oz. to 15 of water, but 2½ minutes is rather a short time for development when developing flat films, as one would bromide prints; and after a trial, as he suggests, I diluted to 25 ozs. of water and gave four or five minutes' development, with very good results. The stock solution soon showed signs of discoloration, even when kept in a stoppered bottle, but this did not seem to affect the result at all,

CAMERA CRAFT

and the caustic soda made my fingers rather like a washerwoman's, and decidedly tender. Then a week later came Mr. Jones' correction and Mr. Ermen's letter suggesting a reduction in the amount of caustic soda, so I made up another 32 oz. bottle, but with even less soda than Mr. Ermen suggested, and now it stands thus:

Metol	3 drams
Hydroquinone	6 drams
Soda sulphite	6 ozs.
Soda caustic	$\frac{1}{2}$ oz.
Water	32 ozs.

It is now an excellent developer. Diluted to 1 oz. made up to 25 with water it gives an excellent portrait negative in five minutes. The reduction in soda makes it less objectionable to the fingers and generally improves its quality as a developer.

When developing films like bromide prints the fingers are constantly in the solution, far more so than when handling plates, so that the reduction in the amount of caustic removes the only objection I could urge against it.

The increase in the amount of sulphite is also a great improvement, as the solution remained practically colorless when kept for several days in an unstoppered bottle, and the developer after use remains quite clear even after it had been used for some time. I found when over-exposure was suspected that a few drops of bromide solution were useful. I feel sure that this developer allows a shorter exposure to be given than when using pyro-soda, but I believe the chemists tell us that all developers are alike in the final result if we only carry them to the stage when all the silver bromide in the gelatine

film affected by light has been reduced by the developer. But that is just what the man who takes photographs never does, so that we are quite satisfied that we can make a difference in the final result by using a different developer, and I believe the "Professional's Developer" enables me to reduce exposure, especially in portraits, very considerably, and I am grateful to Mr. Jones for publishing his formula.—B. J. of Photography.

Preserving Pyro

Those who use pyrogallol in small quantities at fairly long intervals often find that the stock solution, made with sulphite and metabisulphite, deteriorates rather rapidly. In such circumstances it is preferable to revert to the old plan of using sulphuric acid as the preservative. If three drops of pure sulphuric acid are added to five ounces of water, and one ounce of pyro dissolved therein, the solution will remain unchanged for a prolonged period. If distilled water be available it should be used, otherwise tap water which has been boiled for fifteen minutes to expel any air will answer well. The sulphite necessary to prevent staining the film may be added to the soda solution. If this be done no advantage is gained by adding metabisulphite, as the free sulphurous acid to which it owes its efficacy is immediately neutralized. It is not perhaps generally known that a concentrated one-solution pyro developer will keep for months if bottled in small vials or tubes which are filled nearly to the cork and well sealed. I have used such a developer twelve months after bottling, and found it as active as if freshly mixed.—B. J.



THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

On Handling the Camera

The new recruit to the photographic ranks seldom realizes the importance of holding the camera level. This precaution is essential. The majority of hand cameras are not provided with a swing back, as may be found on view cameras, and as hand cameras are usually operated in the hand, this contrivance is not so necessary.

The novice will not be operating his camera for long, before he will probably find that some of the buildings in his pictures will appear smaller or narrower at the top than at the base. This distortion will be most noticeable in tall buildings. The fault arises from pointing the camera upwards, which frequently happens in the endeavor to secure the top of the building, at too close a range. The proper way to secure a picture of this sort, is to increase our distance from the object, and if our camera has a rising front to make use of that aid also. It is only the more expensive of the hand cameras that have rising fronts, the majority of workers must step back, until the whole of the building shows in the view finder. It will sometimes happen on account of the altitude of the building, we are unable to get far enough away, by reason of obstacles. In such a case it is better to be content with what view we can secure with a level camera. There are means of course to overcome some of the distortions, by enlarging, through tilting our board, but this belongs to more advanced work and should be left for the present, as it demands more skill than a beginner is expected to possess.

We may also be confronted with an opposite difficulty, that is in a view looking down hill. In instances of this kind we must also hold the camera level though there is a great temptation to point the lens down hill, this fault will give us false perspective, but if the camera is held level

we shall be able to show the true aspect of the hill, we shall secure the correct impression in our picture, namely, looking down. On the other hand much of this effect is lost by pointing our camera downwards.

The one thing I wish to impress upon the beginner's mind is, the necessity of holding the camera level.

I will not speak of rolling up the film for each exposure or the meaning of the markings on the paper strip, which shows at the little red window located on the camera back. The book of instructions supplied with the camera will give this or the salesman will explain it when buying the camera.

The Eastman Kodak Company recently published their Tenth Edition of "How to Make Good Pictures." This book should be in the hands of every novice. It is most profusely illustrated and it will be of service to every beginner, even though he should use a camera by another manufacturer.

Next to the lens the view finder is probably the most important attachment. The craze for compactness in hand cameras, has resulted in most of them being fitted with little finders which well merit the name "dinky." They're an abomination, and most serious workers adopt another form of finder to the usual reflecting kind. Many foreign makes of cameras use a direct vision finder which is a wire frame fitted above the lens, with a peep sight located at the back of the camera. This finder in use, is held to the level of the eye, and by looking through the hole in the sight, we see our view within the four sides of our wire frame located in front. The beauty of this finder is, the view showing within our frame is the same size as the view on the plate or film. Where it is possible to

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attach this type of finder to our camera, it is a great convenience to have it done.

Another style of finder of the direct vision type, is made with a lens of the minifying style and of oblong shape. This may be bought from \$1.50 up, according to size and may be fixed to any type of hand camera either at the top or down on one side. It gives a diminutive view, but that view is brilliant and it is easy to follow an object when it is moving. The reflecting type of finder is the least desirable of the three. There still remains a fourth type of finder, which is a combination of the direct vision and the reflecting style, it can sometimes be used to advantage in street scenes. It consists of the small direct finder with a little mirror at the back of it. By the aid of this mirror one is able to photograph at right angles to the direction one is facing, and by this means, we can secure a "snap" difficult to obtain otherwise, as we shall not face a person for instance when making the exposure and more poses may be secured that way.

Developing the Negative

It seems to me that those who are content to turn their developing over to others to do, miss half the pleasures of photography. Developing has been so simplified since the tank method was introduced, and the results are so much more certain than formerly, that the novice should not hesitate to develop his own negatives.

It is quite possible, if instructions provided with the tank are carefully followed, that the novice will turn out some perfect negatives from his first roll of film. The thinking has all been done for him. He does not have to weigh his chemicals even, nor measure the water in ounces. He simply dissolves the contents of a little paper packet in some water placed in a metal cup and then adds sufficient water to bring the bulk of the developing solution up to a specified mark. The developing solution should be as near 65 degrees as possible and development will be finished under these conditions in 20 minutes. If the weather should be warm and the developer shows by thermometer test 70 degrees, the developer, if of the same

strength will develop the films in 15 minutes. If on the other hand, on a cold day, the temperature of the developer is down to 60 degrees, we must increase our developing time to 25 minutes.

It is better, however, to work with the temperature of 65 degrees, which is called normal, as we secure more uniform results. Low temperature of developer gives negatives inclined to contrast, high temperature shows a tendency to flatness.

In the earlier days of photography before we had the temperature and tank method, many photographers worked out several changes in their formula, and they also put forward many claims as to controlling the negative, but a great many of these fanciful theories are now exploded. Today we know that it has to be in the negative or we can not bring it out by developing. We also know it requires time to bring up the faintly impressed portions of our film. If our developer is strong, we may find our highlights built up and ready before our shadows have had time to show detail.

It took a long while for the tank method of photography to displace the old tray method there were so many pet theories to be overcome.

For the beginner the tank has everything to recommend it, he can avoid the old time dark room, and he can save time by developing a whole strip of film at once and the quality is equal to the product of an old time expert. But, there are some things we must attend to ourselves. We must thoroughly understand it is up to us to give sufficient exposure to our film. This is of more importance than developer or method. The density of a negative is really determined by the exposure, by this I mean if the exposure is scant our negative will be thin, and this will have to be intensified or we must print on contrast paper. I do not believe the resultant print will ever equal the properly timed exposure.

The undertimed negative is so common that it is almost universal. Beginners, as a rule, do not pay heed to the lighting of their subject. They are attracted by the lights in the picture whereas their attention should be occupied with the shadows.

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West Virginia—William E. Monroe, Box 298, Point Pleasant.

NEW MEMBERS

4978—Chas. E. Skeen, Box 52, McFarland, Cal. 2½x4¼ Developing & P. O. P. of general subjects; for beach scenes. Class 1.

4979—Herbert Hiecke, 4511 Dearborn St., Chicago, Ill. 2¼x3½ Azo, Velox, Cyko of landscapes, marines, buildings, landscapes, old ruins, mountain scenery, animals or birds, notables. Class 1.

4980—Stellario Marchese Ph. G., 552 Henry St., Brooklyn, N. Y. Class 2.

4981—W. Wynne Bolton B. A., "The Willowdale," South Easton, Mass. Post card and 5x7 Azo and Velox, of landscape and marine; for beach, mountain and lake scenes, also children in beach scenes. Class 1.

4982—Francis Markert, Techny, Ill. 3¼x4¼ and 3¼x5½ Azo and Cyko of Genre, human and animal, landscapes; for the same. Class 1.

4983—William T. Jones, 340 So. Church St., Grass Valley, Cal. 3¼x5½ Azo of miscellaneous; for pictures of general interest to be used in window display of camera goods; any size. Class 1.

4984—G. L. Waterbury, 4459 Woodlawn Place, Seattle, Wash. Class 2.

4985—Masakichi Hirai, 265 Sannomiyacho, Nichome, Kobe, Japan. Half Plate and smaller, Azo, Velox, iris and cellofix of landscapes and general subjects for landscapes, portraits or anything of interest. Class 1.

4986—S. H. Wood, 1463 Vanburen St., Corvallis, Ore. 4x6, 5x8, 8x10, Artura Carbon Black (Rough) of views of mountains, streams, sunset pictures, etc.; for any artistic view.

4987—Arthur W. Courtney, 292 West 4th St., New York, N. Y. Class 2.

4988—Isonosuke Omori, 1, Itchome, Umanichi, Asaksa, Tokio, Japan. 3¼x4¼ and 4x5 Velox of anything of interest; for any photographs.

RENEWALS

744—Frank L. Church, 550 Maple Ave., Herkimer, New York. Views up to 4x5; for bathing girls or anything of interest. Class 1.

2990—Jas. L. Vaughan, R. F. D. 1, Belvidere Alle Co., New York.

4085—E. S. Culver, 866 — 37th St., Oakland, Calif. Class 2.

4773—Chas. E. Fisher, Box 426, Taunton, Mass. Will exchange photographs of locomotives and railway scenes, also bathing girls. Class 1.

4799—Howard J. Hite, 116 Genesee St., Lansing, Mich. Will exchange for mountain scenery, notable persons, birds, animals and anything of interest. Class 1.

4806—Edw. L. Gilroy, P. O. Box 200, Aurora, Ill. 2¼x3¼ to 5x7, Azo, Halois, Velox, Artura and Veltex of bathing girls, river scenes, landscapes and figure studies; for the same and only first class work, no copies. Class 1.

CHANGE OF ADDRESS

2645—Hugo H. Schroder, 527 West Brown St., Bettendorf, Iowa.
(Was 303 E. State St., Bettendorf, Iowa).

4865—H. Cleve Burr, 69 Gt. South Road, Epsom, Auckland, N. Z.
(Was 2 Halls Ave., Renuewa, Auckland, N. Z.).

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

Reported by Wm. Wolff

Mrs. Nordhoff of the Kodakery at Chico, California, spent a few days in San Francisco, early in August.

A. G. Sands, commercial photographer, of San Jose, reports very good business.

Edward O. Webb, San Jose, is putting in more Pa-Ko equipment.

Dismo Denigre, druggist of San Jose, is spending a few weeks at Santa Cruz.

Frank Reedy, of Bausch & Lomb Optical Company, has returned from his vacation, looks fine and brown.

Hirsch & Kaye expects to be in their new location, 239 Grant Avenue, by the time this issue is out.

Miss Olga Dahl called on the writer recently. She is now connected with R. J. Waters & Company.

George A. Dolan, of Wolff & Dolan, has lost his Vandyke after many years—looks twenty years younger, almost as young as his partner.

The writer will take a much needed rest from August 6th to 22nd. Then he will travel. Look out for him for he'll be feeling fine and have new line of fall mounts along. Hold your orders.

Mr. Herbert E. Burns, Manager of Marsh and Company, leaves shortly for a two weeks' motor tour to Southern California. Mr. Arthur Muhl, formerly of the Eastman Kodak Company, will be assistant to Mr. Marsh during Mr. Burn's absence.

—Not Adv.

WITH THE CAMERA

Notes From the Illinois College of Photography, and the Bissell College of Photo-Engraving, Effingham, Ill.

Several students have recently motored through to Effingham, among the most recent arrivals who have traveled the farthest being Messrs. White of Dos Cabidos, Ariz.; Shoemaker of New Or-

leans, La.; Uphoff and Yunkers of Corvallis, Ore. and Jenkins of Morrisville, Vermont.

Prof. Lloyd I. Snodgrass has realized there is "no place like home," for he has just purchased a beautiful bungalow not far from the College. He is becoming quite an adept at gardening.

President L. H. Bissell has just returned from Buffalo, New York, where he was in attendance upon the National Convention of the Photographers' Association of America. The convention is always a reunion place for former students, and Mr. Bissell reports he saw some who were in attendance twenty-five years ago.

Cupid is still busy though June is past. Student Ralph E. Davis of Topeka, Kansas, was recently united in marriage to a Miss Hammerli of that city. Mr. Albert H. Boyle of Washington, D. C., married Mrs. W. E. Rinehart of this city. The last named couple are now taking a motor tour through the West.

Prof. D. J. Cook has taken unto himself another automobile. This time it is a Velie Six. Possibly he finds a four cylinder car too slow for him.

To attain the ripe old age of ninety-one is quite an honor. Mrs. R. W. Whittlessey, mother of Mrs. L. H. Bissell, recently celebrated her ninety-first birthday, at her home in Chicago. Mrs. Bissell was present.

Among our recently enrolled students is Dr. F. H. Sheets of Evanston, Illinois. The Doctor is a Secretary of the Board of Foreign Missions of the Methodist Church, and his duty is to supervise the work of the various mission stations. In making his rounds he uses photography quite extensively, and it is for this reason that while in the United States on furlough, he is devoting part of his time to the study of this art. In December he will sail for Malaysia.—Adv.

NOTES AND COMMENT

Coloring of Photographs

One cannot but help notice the ever increasing popularity of the colored photograph. In competent hands the colored picture gains greatly in attractiveness. Modern invention has achieved improvements in the preparation of pigments, and chemistry has added new shades and colors of greater purity and transparency.

Generally speaking, there is a monotonous similarity in the color of the photographic picture, whether it is displayed in the album, the portfolio or whether it graces the walls of our homes.

Take the framed photographs on our walls for example; think how much more effective they would be if colored in such tones that would make them conform with, and be a part of, the general color scheme of things. The artist by using such tints as are beautiful in themselves and are sufficiently suggestive of nature to carry out the idea, will be rewarded with most pleasing results. The pictures he or she produces will have an added value, they will not be merely colored photographs, but they will be a part of the room in decorative fitness. This is not always the case with regard to pictures.

There is also a treatment some may prefer. We allude to the coloring of photographs in accord with nature as is popularly done. It does not matter, however, which method we adopt, we use the same kind of pigments.

The Tangley Company of Muscatine, Iowa, whose advertisement appears on another page of this magazine, has placed on the market Oil Colors that will meet all requirements; being eminently suitable for either glossy or matte surfaced papers and the pigments will spread beautifully smooth.

With the Tangley colors comes a free instruction book, which explains the painting of portraits, scenic and other subjects. The complete outfit comprises 14 tubes of paint, this is quite sufficient to mix any known shade, also, there are applicers and solutions to meet all the needs of professional and amateur colorist.

The Tangley Company will be pleased to answer any questions for our readers relative to this interesting subject.—Adv.

The Annual Salon of Photography Oakland Municipal Art Gallery

Pictorial Photography in California is best known through the work of the Camera Pictorialists of Los Angeles and the International Salon. Central California had no comparable organization until the Photographic Section of the Oakland Art Association was formed in the winter of 1919 by some of the Pictorialists residing in the cities on the mainland side of San Francisco Bay, Oakland, Berkeley, Piedmont and Alameda. They appreciated the benefits extended by the southern organization, but these benefits are greatly reduced by the five hundred miles which separate Los Angeles from the major cities of Central California.

The object of the Section was, specifically, the advancement of the members in Photography as a means of artistic expression. It was also hoped that assistance could be extended to the advancement of this side of Photography through all of Central California. We have had lectures and "one man" shows which have been hung in the Municipal Art Gallery in Oakland, and a demand has arisen for a Salon which will display the best productions of this method of monochromatic expression. We have been so fortunate as to secure for the Jury of Selections:

Mr. William H. Clapp, Director of the Municipal Art Gallery, Oakland, Calif.

Mr. John Paul Edwards, Pictorial Photographer, Sacramento, Calif.

Mr. J. Nilsen Laurvik, Director of the Palace of Fine Arts, San Francisco, Calif.

Mr. Roi Partridge, Etcher, Instructor in Art, Mills College, Oakland, Calif.

Mr. Edward Weston, Pictorial Photographer, Glendale, Calif.

We know that the Salon which they select will be one of distinction.

Intending contributors to this Salon, should address enquiries to Edwin S. Culver, Secretary, Oakland Salon, Municipal Art Gallery, Civic Auditorium, Oakland, California.

The important thing to remember—the last day for receiving prints—October 3rd, 1921.—Not. Adv.

CAMERA CRAFT

The Ica Cameras

Harold M. Bennett, U. S. agent for the Ica Cameras, was a recent visitor to this city. Mr. Bennett was on business, of course, taking what pleasure he could on the fly.

Ica Cameras enjoy a wide popularity in the East and we can safely say the Pacific Coast sales are going to be larger than ever, as we were shown the order slips, good ones too, from the leading photographic dealers of San Francisco.

All Ica Cameras are built along practical lines, have a wonderful finish, combined with remarkable compactness. The amateur who examines these cameras can not help but feel a tug at his pocket-book, for to see, begets a wish to possess.

We are told it is all in the lens, if that is so, it will interest the reader to know that all Icas are supplied with Carl Zeiss lenses made in Jena. We might also mention here at the Harold M. Bennett's headquarters in New York, they have in their employ an expert named Herman Koch, a man trained in the Zeiss shops in Germany, who superintends all repairs to Ica Cameras. Owners of these cameras can always have the advantage of exceptional service.

It was our pleasure to visit Mr. Bennett during his stay here, to examine and handle his most popular lines, to gloat over them, for at heart the writer is still an amateur. We saw some wonderful cameras and considering their quality it was hard to conceive of improvement.

The Ica people have a catalogue in preparation, of their photographic and optical goods, but the reader need not wait for that; write Harold M. Bennett, 110 East 23rd Street, New York, for the folder; it is beautifully illustrated with cameras of many kinds, including Reflex and Stereoscopic of the very latest designs.—Adv.

July—1921—August

The latest copy of *Lensology & Shutterisms*, the Wollensak sales organ, is on our desk. In the May number of *Camera Craft*, under the department Notes and Comment, we mentioned the fact that the Wollensak Company had placed on the market a new type of shutter. Space did not

permit of a fuller description, but readers interested in the shutter problem will glean additional information from a perusal of the July-August number of their booklet.

* Perhaps you are a user of a Verito lens or contemplate investing in one, in either case you will find information that may be of interest and value to you between its pages. Address, Wollensak Optical Company, Rochester, N. Y.—Adv.

Those Days and Now

Well do we remember the time when the amateur photographer commenced to sprout over the land. Eastman & Co., with the Kodak, was responsible for that. Neither have we forgotten the earliest of the Kodaks, we thought them wonderful, great; but we never imagined in those days, that there would be a time when we should have "greater-smaller" cameras coming to us. The wonderful Vest Pocket Camera, and no tripod would have struck us as a joke then, had we seen it.

In those days, there were certain photographers who grumbled that their business was going to the bow-wows, that the amateurs would take their own or each other's portraits; and with intensified feelings they would enquire, "Was life worth living?—certainly not, me for the mercury bottle!"

Anticipated dire misfortune never materialized, however. The amateurs grew in numbers and the cameras also. There was work for every one, even the photographer, who had mislaid the fatal bottle.

Then, necessity demanded the photo-finisher. Something no one before had dreamed of, and these photo-finishers required the very best of outfits, to meet the demands of quick service. Improvements in apparatus came thick and fast, those in the front ranks adopted them; time, we must save time, that appears to be the slogan, we must not disappoint.

To save time, and at no expense to quality of work, Marsh & Co., 712 Market Street, San Francisco, have recently installed an Eastman Projection Printer of the latest model. Few amateurs would realize that a quick handling of bromide

NOTES AND COMMENT

paper was a necessity now, the paper itself must be placed in proper position and the negative be almost instantly in focus, to the proper scale; this is done automatically, it is all to save time.

The House of Marsh & Co. is strong for prompt service, when the work is promised it is ready, and of excellent quality too. The same promptness characterizes the execution of work belonging to their Mail Order Department, which is quite extensive.

We of those days, but who are still in the procession, admire the ways of today—they are wonderful—Adv.

For Portrait Photographers

A fast and a simple way to mark negatives, has for a long while been needed in the dark room. The Pa-ko Corporation of Minneapolis, Minnesota, who display genius in supplying efficiency equipment, has again come to the front with another time-saving appliance, "The Pa-ko Negative Marker." This marker is brought to your notice and bids favor—on its merits.

The orderly man, the methodical and neat man needs it. The business man will see in it the words "a necessity."

The Pa-ko Negative Marker will do all this for you. It will eliminate at once the untidy, sometimes the inaccurate and tedious method of hand lettering and numbering. As the typewriter supplanted the pen, this negative marker takes the place of the stylus. Like the typewriter in efficiency, this little machine will do all it is intended to do, quicker and better. There is no question about this and no comparison as to results.

The Pa-ko Negative Marker itself, is a handy felt-covered platform made of aluminum. At one end are movable letters and figures column fashion. One can make any numerical combination desired. Each letter or figure is die cut in movable brass slides. Slides are adjusted to desired number; negative is placed on the felt surfaced platform, an electric button is pressed, the number is printed on the margin of the negative and develops with the subject. The operation is rapid and exceedingly simple, the appearance most business-like.

It will be to the advantage of the photographer, even the smaller studio operator,

to make himself familiar with this time-saving device. The Pa-ko people will give all particulars promptly.—Adv.

Probus Photographic Products

Steady readers of Camera Craft, have long been familiar with the Probus line carried by Wolff & Dolan, Manufacturers, San Francisco. Our reason for referring to this well known firm's products is, that Camera Craft has at each issue a growing list of new subscribers, and we wish to point out to them these excellent things and their uses.

Probus Preservative Paint, a Standard of quality, a dependable tray coating; it is an absolutely water, acid and alkali proof compound. It is especially prepared for photographic uses, it fills the requirements perfectly and creates a demand for itself.

For developing large prints, or for washing several contact prints, the home made wooden tray has ever been popular, economy commends it. You may search among the back numbers of your favorite photographic magazine for a formula to coat trays with, but—if time means anything to you, you will buy a can of Probus Preservative Paint, follow directions, and you will have a good job simply done.

Are you one of those who delight in tinting photographs? This by the way is a most engrossing pastime. Probus Photo Oil Colors will meet all requirements, it is the choice of many professional colorists. The pigments are ground exceedingly fine and thereby made more transparent, this quality is of great importance and is much appreciated by the expert.

The best of us at times make prints that are "flat" in appearance, especially in enlargements our shadows are apt to look heavy, blocked up they call it. There is a preparation to give transparency and a richness to these shadows that greatly enhance the artistic effect. We refer to the Probus Paint Lustre; with it we can do wonders with these shadows, a slight application of this lustre to the offending portions of our print will show a marked improvement, or we may apply the lustre over the whole surface of the picture and secure brilliancy that way, this method naturally brings out every bit of detail in the picture.

CAMERA CRAFT

We must not forget to mention the Probus Veribest Overflow Stoppie. Here is something in the nature of a necessity. Why not convert the sink, tub, basin or other fixture into a wash tray? Yes, why not? We can then turn on a gentle flow of water and leave our prints to wash, we can meanwhile do other things and never fear an overflow, the stoppie will take care of that.

The firm of Wolff & Dolan have been in this business for years, they understand the photographers needs in these lines and supply the very best under title, Probus Photographic Products.—Adv.

Photography and the Lens

Bausch & Lomb have issued a folder with description and prices of their lenses. Besides the cuts illustrative of their "Tessars" and "Protars" there are three illustrations from photographs showing the work of these lenses.

The history of photography may be regarded as the history of the lens, so closely is the subject linked. Regardless of the camera and other equipment, it is the lens which largely determines our success. Of all lenses ever made, the anastigmat represents the highest type today. Its marvelous speed, flatness of field, even illumination, crisp definition from corner to corner and correction for color, spherical aberration, astigmatism and distortion.

Anastigmatic lenses were introduced in the American market by the Bausch & Lomb Optical Co., of Rochester, N. Y., a pioneer agency in the development of photography in America. Dependent at first upon Europe for its supply of optical glass, it has since introduced that important manufacture also in this country and now produces and controls its own raw material.

Anastigmats have proved a great boon to the photographer, amateur or professional. With anastigmats one can make satisfactory pictures under conditions heretofore considered impossible for photography. Cloudy or waning light, indoors or out, also, swiftly moving objects present no obstacles.

The Tessar Ic, for instance, is actually faster than the human eye in stopping the swiftest motion. Admitting more than three times the light than ordinary lenses,

it enables one to get wonderful indoor pictures.

Your camera then is really no better than the lens. If in need of lens information, ask to have the booklet, "What Lens Shall I Buy?" included with the folder. Address, Bausch & Lomb Optical Co., Rochester, N. Y.—Adv.

Nearest to Nature

This is the title of an interesting booklet issued for free distribution by The City Sale & Exchange, 81 Aldersgate Street, London, E. C. 4.

The object of this publication is to draw attention to those wonderfully popular stereoscopic cameras of Jules Richard's make. This famous Paris house has specialized in the manufacture of these instruments which are known the world over by the names "Verascope" and "Glyphoscope."

Stereoscopy owes a great deal to Jules Richard, he has given the art a new impetus and the call for these accurate and ingenious cameras is meeting with a steady and ever increasing demand.

There is no question; if we wish to see our pictures, or if we wish to show them to our friends with the truth, the realism we beheld in nature when the view or object first attracted us, we must have recourse to stereoscopy.

Stereoscopy supplies that quality lacking in the ordinary photographic picture no matter how artistically or perfectly made. It restores that third dimension—depth or distance—whereas an ordinary photograph gives us only length and breadth.

There is another point which some may overlook: Besides the immense advantage of seeing our pictures in the perspective as originally seen, we have a negative for enlarging purposes also. Either of the negatives may be used for, and will produce excellent enlargements. We have seen remarkably clear 8x10 bromide enlargements made from these small negatives. The reader should understand these stereoscopic cameras that place in his hands practically the advantage of two instruments of the hand camera type. Three enlargements in support of the above statement are published in this booklet, "Nearest to Nature."—Adv.

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CAMERA CRAFT PUBLISHING CO.

Claus Spreckels Bldg.

San Francisco

California



CAMERA CRAFT

A Photographic Monthly

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Seven Camera Bargains

This month we are listing seven big bargains in used View Cameras, each one being priced to attract the attention of buyers looking for their money's worth

5x7 Eastman View Camera No. 2, complete outfit with Rapid Rectigraphic Lens, case, 6 holders and Tripod. List price, \$106.86Special \$63.50

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"MISS RUTH MILLER"
(Pittsburg Salon, 1921)
By JAMES N. DOOLITTLE

CAMERA



CRAFT

A PHOTOGRAPHIC MONTHLY**H. D'ARCY POWER, M. D.**
Editor-in-Chief
CLAUS SPRECKELS BLDG.

SAN FRANCISCO

EDGAR FELLOES,
Associate Editor
CALIFORNIA

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Wild Game in Yellowstone

By W. H. Emmet



With Illustrations by the Author

The beginning of my photographic career was like that of thousands, my most painstaking efforts were rich in results—trouble. There seemed to be always something wrong. I would forget something. Either the slide was not drawn, the shutter not set, or I might do some other wise thing. Failures through these means are really not so bad, we soon quit them, but how about failures that can not be accounted for? Here I want to acknowledge my indebtedness to the late Mr. Clute and to Camera Craft. With the help I received from this source I overcame my troubles, and I will say, I have received more useful photographic information from Camera Craft, than all the other photographic magazines, and I took four of them. I was a subscriber before the San Francisco fire, (April 1906).

As to cameras, I have tried many makes, including the most expensive, but I decided finally to have Folmer & Schwing make me a special 5x7 compact focal plane camera, you will notice by the cut it is very similar to the present Speed Graphic as shown in the Graflex catalogue.

I have four lenses fitted to this camera; One Cook 11½ inches focus series III f-6.5, one 9¼ inches, and one 8½ inches also by Cook, same series with multispeed shutter. I also have a Zeiss Kodak lens similarly fitted with a multispeed shutter, this last lens is also used in a 3A Kodak.

The first requisite to successful game photography as I see it is endless patience. It is very difficult to get near enough to game to secure a large picture, they are most unwilling subjects and very shy. For all that, I

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"THREE OF A KIND"—MOUNTAIN SHEEP

Copyrighted

have managed by careful stalking to come on to them at times unawares, and the camera and long focus lens has done the rest. It is very trying after a most careful advance and making the most of every bit of cover, be it rock or underbrush, and finally to start your quarry with a sudden noise, the snapping of a twig, the rolling of a stone—that reminds me, when I was knee high to a grasshopper my folks told me a lot about rolling stones gathering no moss, but it remained for me to make the discovery that rolling stones gather no negatives either.

One has to proceed about this work with extreme caution, and at times the making of the negative has to be very rapid, that is why I favor the direct finder, it seems more natural to me to sight from eye level than from the waist. Many is the time I have had to take the subject on the fly. The photograph of the beautiful young buck entitled "Startled" is a good specimen of camera handling, the work is quite exciting I assure you. When this animal saw me he slipped into high gear and streaked away, as you see I caught him just a moment before.

All these pictures were taken in and around the Yellowstone National Park, and the animals were as wild as they make them. I have a good many photographs of wild game but they show smaller in size, as it was impossible to approach closer to them. My perseverance, however, was sometimes rewarded, and the pictures here published are some of my "closeups," but these were not made in a day, but are chosen from the work of several years.

WILD GAME IN THE YELLOWSTONE



"STARTLED"—YOUNG DEER

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"Resting" was taken in the winter. I spotted a bunch of deer at some distance away, no hunter could have approached them more cautiously than I did, the trouble with a camera hunter is, he must get so much nearer, if he wishes the game to show up well on his plate. I was getting elated at my prospect of success, when one of the deer sighted me, that was enough, his eyes seemed to serve for the bunch; off they went, they are going yet, all, except one, and I managed to get up pretty close and took a snap at it, just one, then it scampered away, making up for lost time. It was then I discovered the creature was snow-blind, and on that account had not seen me sooner.

"Startled." As I was strolling along on another occasion with my camera ready, I noticed a movement in the brush by the road, by cautiously peering, I spied the antlers of a young buck, a hasty examination of the camera to be sure all was right, and picking up a rock I threw it in the brush behind him—Oh, boy! Out he came, and I nearly missed the picture. I was so lost in admiration, I almost forgot to spring the shutter. But I got him as you see, it was awful fast work, and better than I could have done with any other type of camera.

"A Summer's Day." Here we have a deer with her two young, resting in the shade of cedar trees. This scene happened near a gulch and I was enabled to work my way pretty close to them.

"Three of a Kind." These wild mountain sheep, were in what is known as bad lands, a place with many rocks and boulders, but that was greatly to my advantage as I found plenty of cover to screen my advance, and this enabled me to photograph at fairly close range.

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"ANTELOPE"

THE CAMERA USED



"RESTING"—YOUNG DOE

"YOUNG ELK"

"Young Elk." I came across this youngster in the open country, fortunately I was mounted on a good saddle horse and after a hard chase I ran him down, and by getting in front of him, managed to secure this photo. The animal was on the fight when I took his picture.

"Antelope." There was quite a bunch of these beautiful creatures feeding near a deep creek, this particular one was lying down apart from the herd, and I was able to crawl up unobserved and secure an excellent negative.

The focusing scale and the direct view finder was used to secure all these pictures with the aid of the focal plane shutter. I find the focal plane shutter more reliable in cold weather than the pump valve, between the lens shutter, the intense cold we at times experience here is the cause of trouble in the pneumatic action.

Photographing wild game appeals to me as nothing else does. It is most engrossing, but anyone indulging in it must be able to devote unlimited time to the hobby, indeed one must have a great deal of patient enthusiasm, or he will not get very far.

OUT OF DOORS



"A SUMMER'S DAY"—DOE AND FAWNS

Out of Doors

By Sigismund Blumann

Give me a Kodak, a pipe and a dog,
And I'll go afield for a day or a week,
And deep in the woods on a fallen log
Or knee deep in ooze of a country bog
I'll send up a prayer; not even speak
A word with the lips—that shall be heard
At the very Throne of Him who made
Heaven and earth, beast and bird,
Sunlight to bask within, cooling shade
Camera, man, and pipe and dog.
And I shall be grateful, too.



A Profitable Sideline

By Clarence Ostrow



With Illustrations by the Author

There are numerous sidelines in photography; many ways for making money. I have found one, which nets me extra funds for a few hours work each week, besides proving a good advertisement as well.

Whether the reader needs money or not, any account of how to make it, generally proves mighty interesting; the subject has a charm of its own. Perhaps I am not alone in believing, articles of that sort are more often read than any other, and that belief tempts me to offer my experience, as a contribution to Our magazine.

While passing the stage entrance of one of our large local theatres with my Graflex, an actor resting between scenes requested me to snap him in his costume. I doubted very much my ability to get any results with a snapshot in the dark alley directly back of the theatre. However, I made two exposures at 1/50 second, stop F-5.6, with Graflex plates in the magazine.

The plates were taken home and I developed them in Seed Contrast developer, and printed on Glossy Azo postcards. The result was fair, considering the light conditions and the fact I had to shoot quickly. The following day I appeared at the theatre with a print from the better of the two negatives, and the party was well pleased with it. I had also taken my camera along with me, and several other members of the company requested me to snap them after seeing this one of the leading man.

I charged \$1.50 for a dozen post cards, doing no retouching at all nor blocking out, and as a rule they are all satisfied with the result. Soon I had all the extra orders I could take care of, the company consisting of twenty-five members, each with about four changes of wardrobe each week.

It was not long before I suggested enlargements, when the negative would stand it, and found they bought these as well as the small prints. I make the enlargements on Carbon Black, glossy.

It was my experience that best results were secured by using Seed Graflex Plates, with Seed contrast developer. The best speed to work to, in making exposures was 1/50 second. Of course if the weather is bad I am out of luck. Another drawback is the fact, the pictures must be taken quickly as the stage entrance is near the street, and people will stop to look and this soon ties up the traffic; so I must shoot quick, and of course cannot use a tripod.

I do not always, in fact very seldom do I get what I consider a very good negative, but as long as they order from \$25.00 to \$40.00 worth of

A PROFITABLE SIDELINE

COMING DOWN THE STREET

"YOU DON'T SAY!"



THE CUTE HERO

"ALL MINE!"

prints a week I am satisfied. So, now, one afternoon each week I forsake the studio. Armed with my Graflex and three magazines of plates (looking like a salesman for a Safe Company, with his samples) I journey over to the alley and snap the characters as they come out between acts.

Of course in some cities it would be impossible to do this on account of the location of the theatre, bad light and so forth; but, it is a profitable game where one has the time and equipment to turn out the work fast, and then, they will soon be coming to the studio for higher priced work.

I shall pass through this world but once. Any good therefore that I can do or any kindness that I can show to any human being, let me do it now. Let me not defer or neglect it, for I shall not pass this way again.

—Anonymous.



OUR WILD FLOWERS

Kindly Contributed by Our Readers

IX. MARIPOSA LILY OR TULIP

One of the best known of the California wildings. There are many varieties and range in color from white to yellow, lilac and several shades of purple; often marked with lines and dots and eye-like spots to suggest the butterfly. This peculiarity gave to it the name Mariposa, meaning butterfly. The leaves are formed like blades of grass. The bulbous species of the lily tribe, of which the Mariposa is one, are more or less related to the esteemed onion, and the Indians long ago discovered the nutritiousness and palatability of these juicy vegetables of the wild. Such bulbs are lumped

by old settlers under the general name of Indian Potatoes but are really a cousin to the onion.


The Indians who used these roots were called Digger Indians by the Whites, really a term of derision, because of their practise of grubbing up wild roots and bulbs for food instead of going to the trouble of cultivating the other kind, but it is hard for one to reduce to terms of food value these delicately beautiful flowers. The name Mariposa Lily is proper although the resemblance to the tulip is so marked that both terms are used indiscriminately.

In botanical language

the genus is *Calochortus* as plain as Dutch to a Tehatian.

CHARLES A. HARRIS.





Phenosafranine as Desensitizer

By Ralph Stuart Browne,

Instructor in Photography, University of California Extension Division



With Illustrations by the Author

The extraordinary interest shown in the communication by MM. Lumiere and Seyewetz on the subject of their investigations of the desensitizing action of certain azo dyes, can be explained only on the assumption that many, not being familiar with the technical language in which the report was printed, have been led to false conclusion as to the value of the suggested use of desensitizers and particularly with regard to phenosafranine.

It will be recalled that it was Lupo-Cramer who first investigated this dye and who discovered its remarkable action. The work undertaken by MM. Lumiere and Seyewetz was to see whether the peculiar properties of this compound were shared by others derived from the phenazine group and whether its action was a chemical, physical or physico-chemical one.

As a result of their investigations it is now known that there are certain other dyes that act as desensitizers and that the peculiar property that enables them to reduce the light sensitiveness of photographic emulsions is due to the fact that they are oxidizing agents, and in some way not clearly understood, are enabled to satisfy the "light craving" of the silver.

According to the original report of Dr. Lupo-Cramer a plate bathed in a dilute solution of phenosafranine has its sensitiveness reduced from 200 to 300 times. These are impressive figures but not being expressed in finite terms of any light standard they lose much of their force.

It is easy to understand of course that many have been carried away by them and this probably explains the popular belief that by bathing a plate in the manner described it is possible to develop it, if not in broad daylight, at least in artificial light of a strength heretofore undreamed of.

In order to see if the method possessed any particular features that would commend it for my own work, I made a number of experiments having in mind merely the determination of the strongest workable light that would permit of the development of certain types of plates without fogging.

A small positive was first prepared and the plates to be tested were printed from this by contact. The exposed plates were then developed by the phenosafranine method, lights of various intensities being used to determine the one that would provide the maximum illumination with the least amount of fogging. Unfortunately, the pressure of more urgent work prevented me from carrying the experiments to the point I desired; but enough was done to roughly indicate the limits I was seeking.

The accompanying prints which were made from negatives developed in the manner described, will afford an idea of the possibilities of the process.

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The first one is from a Wratten and Wainwright panchromatic plate. This plate was placed for two minutes in a 1:2000 solution of phenosafranine and then transferred to the "S. Q." developer given in the June issue of Camera Craft. All these operations were conducted in absolute darkness. After remaining in the "S. Q." developer for two minutes it was exposed to the action of a Wratten and Wainwright Safelight, Series O, illuminated by a 16 C. P. carbon lamp, and the development completed.

Examination of the print shows very clearly that the plate was unquestionably fogged, but considering its original sensitiveness and the conditions under which it was developed, the results, although unsatisfactory from one point of view, are really remarkable.

From the above experiment I infer that had I carried the development in the darkness along a little further and then completed it with the aid of a "Series 2" Safelight, fog would have been entirely eliminated.

The second print was made from a Standard Polychrome plate. It was bathed and developed in the manner described above, except that the entire development from the time of desensitizing took place at a distance of three feet from a bright amber light of 16 C. P. It shows a strong fog, due no doubt, to the strength of the light. It shows that this type of plate will have to be developed by a light no stronger than a Series O.

The third print was made from a Standard Slow Lantern Plate. It was developed as described above but at a distance of three feet from a 25 watt tungsten lamp. It shows an almost imperceptible fog, not discernible perhaps in the half tone cut, but in the original print. Without doubt, had I used a lamp of the same power but with a frosted globe the fog would have been completely eliminated.

A number of other plates were tested in the manner described and from the results obtained I am inclined to think that with process, lantern slide and other slow working plates and film that are not color sensitive, it is quite possible to conduct the developing operations in the presence of weak white light under conditions that will afford a far greater control over the results than is now possible. It is a method that will commend itself very strongly to professionals using the type of plates mentioned.

In the case of color sensitive plates, the advantage of using stronger lights in development is not to be overestimated but whether or not this will compensate for the longer time required for washing out the color of the phenosafranine is a question. Amateurs, as a rule, are not given to waiting, and I doubt whether the method will appeal to them, with the single exception possibly, of its application to panchromatic plates. At any rate with the present difficulty of obtaining the dye, it may be some time before it comes into extended use.

There was one other phase of the subject that I would have liked to have looked into had time permitted. This is the possibility of substituting phenosafranine for metal in the well known "M. Q." formula. The one by which the plates were developed in the above described experiments exhibits properties quite different from the usual hydroquinone developer. It is con-

PICTURES IN BRONZE



From Wratten & Wainwright Panchromatic Plate

From Standard Slow Lantern Plate

NOTE: The print from the Standard Polychrome plate looked so much like the print from the Panchromatic plate, that it would serve no useful purpose to have a cut made of it, and it was omitted on that account.—E. F.

siderable faster and gives softer results, but just how it compares with metal, I am not prepared to say.

I made one experiment, however, that was interesting. An exposed plate was placed in the developer made up exactly as described but minus the hydroquinone. At the end of eight hours there was not the slightest trace of silver on the plate. Adding more phenosafranine had no effect whatever. From this it may be inferred that the dye by itself is incapable of bringing out the latent image. This conclusion might have been forecasted in advance from the experiments of MM. Lumiere and Seyewetz, they having found its action to be one of oxidation rather than reduction.

Pictures in Bronze

An attractive way to finish photographs suitable for presents, is to make a positive on a glass plate, either by contact or enlargement, and then to coat it (gelatine side) with bronze paint by flowing. The color of bronze used is left to individual taste.

In making the positive print on glass a medium or slow plate is to be preferred. And the picture should be developed in a clear working developer, that there should not be the slightest trace of fog or stain on the plate. Another precaution is, the plate must be properly timed in the printing, and its development should not be carried as far as is necessary for a negative. The picture should show quite thin when viewed as a transparency.

Having secured a suitable positive, mix up some ordinary bronze paint to the consistency of cream, and flow it over the coated side of our picture and let it dry. The result is pretty when viewed through the glass.

There are many shades of bronzes to select from, gold, silver, copper, green and blue.—E. F.

Filters for Cutting Haze

By H. A. Staples



With Illustrations by the Author

In writing the following article, the writer is oppressed with the feeling of helplessness due to many causes. First, he is almost sure that the instant the average amateur sees the word "panchromatic" he will refuse to read the rest of the article fearing it will be too technical. Second, the writer will be severely criticised for writing an article telling how to cut haze



Taken with Ordinary Plate and no Filter

From a Wratten Panchromatic Plate, with K. I. Filter

when the pictorialists today are clamoring for "atmosphere." Third, that by the time the illustrations are made and printed on these pages, they will show only very poorly the results in the original negatives. No reflections on the poor soul who makes the cuts. "But it can't be did," that's all.

But having been asked to give the results of a few experiments of his own, the writer will endeavor to do his best, trusting that a few may take heart after the bug-a-boo "pan chromatic" is past.

There are here four illustrations. No. 1 was taken on an extremely hazy day with an ordinary plate and no filter. By ordinary, is meant a plate not sensitive to the red light. In No. 2, a Wratten panchromatic plate was

FILTERS FOR CUTTING HAZE

used in conjunction with a K. 1. filter. In No. 3, the same make of plate was used and a K. 3. filter, and in No. 4, an A. filter was used. Note the filters K 1, and K 3 are yellow. While the A filter is of an orange red color.

It can be seen that in each picture a step forward is made in eliminating the haze.

Do not judge the results by the immediate foreground, but use the tall building on the left as a guide.

The reason for it all is this: Haze, if you have ever noticed, is of a bluish color, the reason for which need not be discussed here. Now that blue haze is faithfully reproduced upon the ordinary plate as that is about the only color to which it is sensitive. So well does the haze show up that it is like putting a curtain between the camera and the distance. Now when the filters are used they absorb these blue rays before they reach the



From Wratten Panchromatic Plate, with K. 3 Filter

From the same make of Plate, with the A. Filter

plate, letting only those rays pass that are related to the infra—red end of the spectrum, thereby causing the same result as would be produced should the haze be blown away. The degree to which the haze is cut, is due to the power, which that certain filter has of absorbing the blue rays.

The K. 1, which is a very light yellow, stops only a few of the blue rays. The K. 3, which is a deeper yellow, absorbs more of the blue. While the A. filter absorbs nearly all.

One could go a step farther and use an F. filter, which is a deep red, and which would absorb the blue to such a degree that the buildings in the far distance would be cut out as clearly as the large one in the foreground.

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Ten minutes did not elapse between the time of the first exposure and the last. So that atmospheric conditions changed only very little, if at all.

It seems almost useless to give the warning that any old piece of yellow or red colored celluloid or glass will not act the same as the K. and A. filters, it certainly would have been overlooked had not the writer been asked that very question. Let it be understood right now that the filter must be corrected for the plate used.

Another question that may be asked is, "What has the brand of plate to do with it, as it seems to be the filter that does the work?" True, but as the blue rays are absorbed, only the red rays are allowed to pass to the plate to make an impression. Therefore, it can readily be seen that when the A. or F. filters are used the image is formed almost wholly by red rays, and how can a plate that can be handled safely under a red light be expected to record an image, made up of red light. Now the Wratten panchromatic plates are sensitive to the red rays to a high degree, therefore, the image is recorded on the plate without an unduly long exposure. The panchromatic plate is so sensitive to red rays that it must be developed in total darkness, or a Wratten green safe light used. The writer prefers to use the green light and to the uninitiated, let it be said that working in the green light is every bit as easy as in the red, so that no objection to the panchromatic plate should arise there.

In conclusion let it be said that the writer does not advocate the use of an A. filter on every exposure. But there have been times in his life when rambling around the country, that he would have given much to record some distant scene but could not, because of the haze. No better illustration can be given than when on a trip to Crater Lake, Oregon, the distant cliffs were lost in the haze to the plates he had with him. But, had it not been in the days when panchromatic plates and filters were a fairy tale to him, it would not have been so. And so it must happen to us sometime, but it is those experiences that create the desire to know how.





Thoughtless Buying

By W. P. Mattern



To begin with—I'm not going to get myself in Dutch by criticising the various handy appliances on the market—for excitement see "Answer To Queries Department."

After studying the album of a friend of mine I became uncomfortably interested in such instruments as flash-guns, automatic self-timers, tripod clamps, metal tripods and so forth. He sure had the finest collection of photographs of contortionists, freaks-of-nature and the like, that I ever laid eyes on, outside of Ringling Brothers, Barnum & Bailey, Combined. It he hung 'em in a museum and called them the products of his recent trip to Mars nobody could contradict him, for there never was anything like them on earth.

The first were portraits and he confided to me that they were taken with an auxiliary lens. Maybe they were but before he told me I was on the verge of asking him if he was not afraid of his subject. The monster looked just as if he meant to rush straight into the camera and it's operator and bump them into oblivion with its long, powerful nose. My friend admitted it was slightly out of proportion. It WAS. I suggest that in the future that according to all instructions on the subject, even with the portrait attachment he should stand at least three feet from the subject before "pushing the button."

Sure, the finisher was to blame; but then, he (my friend) had never developed a film in his life. You know how they are—these drug-store amateurs!

His line of flash-light pictures was complete. He had about a hundred and all the graduations of light and dark were there too—but, they weren't all in any one print. Number one looked like a photograph of the sky on a clear day; and each one following resembled some new interpretation of the beauties of the earth with variations. Number ninety-nine was supposedly a photograph of a five-foot snow-fall on a prairie. A few well placed pin-holes served well to break the monotony. I think I forgot to mention that several appeared to be pictures of the interior of a safe-deposit vault after the visit of a careful burglar—careless only about his finger-prints, we must add.

There again I had recourse to the instruction book and underlined the section relating to photography by flash-light.

It didn't do any good to advise him to use no more, or no less than the amount of powder the manufacturers recommend; or to suggest, that he keep the flash a good three feet above the heads of the subjects. He couldn't savvy that the flash is artificial day-light or supposed to be, and

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that it should come from above (same as all blessings). May be, some day, somebody will be so unkind as to inform him that his victims look as if they were crawling out of a hole in the ground after spending the most part of their life in darkness.

My friend now proceeded to demonstrate the convenience of an ever-ready, durham-duplex bank account, by digging up an assortment of brass tripods, distographs and other things that didn't have any meaning to him, except that he was a photographer and had to have 'em. He sure did like to have his friends ask him such questions as, "What's this for?" It kinda tickled his funny bone to have a lady remark in his presence "My goodness, but it must take a lotta brains to know how to use such complicated contraptions."

So much for my friend. There might be someone in the audience who may think I am telling his own case with some exaggeration; but I'll bet a round-trip ticket to heaven, that nine out of every ten would-be's, have a bunch of unnecessary odds and ends laying around, that they bought merely because they saw them in a window, and happened to have the root of evil in their pockets at the time.

Not everything I have mentioned is useless; but anything that is not used IS useless. We buy a thing to get our money's worth out of it, when we do not get that, we cheat ourselves. We should get the worth either in pleasure or in profit.

There are quite a few articles on the market today selling for prices of which their cost represented but about 20%. They are going to stay at the price they (the dealer) set, because the foolish part of the public will buy them. That part of the public is generally the first to set up a howl at exorbitant prices, and the funny part of it is, that the things are bought because they are new, not because they are needed. They are those disciples of Daguerre, who have merited for us the cognomen "Camera Nuts" or worse.

Such things as I have mentioned are handy assets for those who have a steady use for them; but who is anxious to possess a trembling bank account at the expense of a stock of non-dividend paying accessories.



Home Portraiture

By Cobb X. Shinn



With Illustration by the Author

Most of us live too far from Los Angeles to have a Movie Star pose for us to make portraits. Even if the belle of our own little neighborhood would pose for us, we would find that our little amateur outfit would not get



VANITY

results. Great lights are needed, also screens, and flash bags which cost more than the average amateur can afford, who only spends a dollar or so a week on his pet hobby, Photography.

So, I would suggest following, along the line of making portraits of dolls. You will find that your little 4x5 inch camera will get some very pleas-

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ing results. Borrow the children's dolls. They will make the best behaved models you will ever be able to find. They will sit or stand just where you put them, while you focus your camera. You can change your lighting effect time and time again and your model will never move. As to lights, just common electric light bulbs, like you use in your home will answer the purpose. You do not need powerful lights, you can give your negative any amount of time, your model is always well behaved.

As to backgrounds, a piece of wall paper is the very best; even better if you can get an old sample book of wall paper, then you can have a greater selection to choose from.

Of course, you have to stop down your diaphragm to a very small opening on account of being so very close to your model, place your background far enough back of your model to throw it slightly out of focus, this will give you a softer effect and better relief.

From now on, I will have to leave you to your own devices, as to poses and kind of dolls to use. You may say, "Why should I play with dolls"? To this I will reply that "Vanity" was sold to a magazine in London for a Pound (\$4.90), to say nothing of the numerous subjects that have been used by magazines in America. There is a demand for calendars and tablet covers. These pictures were all made with a 5 x 7 camera, which any amateur can afford. My only lights were two 100 watt nitrogen globes. The dolls were loaned to me by the children in the neighborhood, who were only too glad to help out in exchange for one of the prints.

A Cure for Blisters

Not long ago, I saw in Camera Craft, a note about blisters in Bromide printing, and as you did not mention the sure remedy for blisters, it occurred to me that possibly your readers may have had this trouble, and would like to know how to avoid it.

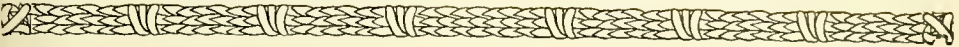
Simply a handful of Table Salt in the first wash water, and you'll never have a blister.

After dropping photography for quite a number of years, I tried a few enlargements on P. M. C. Bromide last fall. I got some fine prints on 8x10, but when they went into the wash, they quickly developed so many blisters that the lot was ruined.

I spent a day going through my files but I found nothing to help, and was fairly stumped, when Mrs. H. said, "You always used to put salt in the first wash. What was that for?" And then I remembered.

I haven't the remotest idea where I got the idea first, but it does the trick, and I wonder why the bromide manufacturers don't put it in the instructions.

HENRY HALL.



The 39th Annual International Convention Photographers' Association of America Buffalo, N. Y., 1921

By Harold J. McCurry, Chairman, Western Division



The Photographers' Association of America closed the most successful convention in their history at Buffalo on July 23rd, this being the 39th annual convention. I cannot speak for former conventions, but I will say that when I entered the Convention Hall on Monday, July 18th, I was agreeably surprised and I am proud to say that I am a member of this Association. The Convention Hall was arranged very tastefully and the color scheme, of white and yellow streamers from the ceiling of the hall blended in harmony with the exhibits of the manufacturers. The emblem of the Photographers' Association was prominent in every booth. All the leading manufacturers of photographic supplies and equipment were on hand, and they certainly had a very courteous lot of men connected with each booth.

I believe there were about seventy exhibits in all. The Portrait exhibit, so I am told, was one of the largest and represented the work of many of our best portrait artists throughout the United States.

I was more than pleased to see the excellent showing made by the Commercial Photographers, and Mr. Kaufman, chairman of the Commercial Division, thanked the San Francisco Photographers for their wonderful showing.

The Ladies' Auxiliary, under the leadership of Mrs. Howard Beach, wife of our President, made a wonderful hostess. The Tea Garden was open every afternoon where tea and cakes were served without charge, and we all appreciated the way the ladies handled the tea room.

A few of the outstanding talks, were the talk of "Pop" Core, the original photographer of children only.

Perrie MacDonald told how he is so successful with the photographing of men. Harry Collins Spillman spoke on, "Your Personality." Clarence Stearns of Rochester gave a very interesting talk on advertising for photographers.

Being a commercial photographer, I did not have the chance to hear all the speakers the Portrait section had. The Commercial Photographers had several good speakers also, among them being the former president of the Commercial section, Mr. Kaufman, who gave a talk on the photographing

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of catalogue work, and followed his talk with an actual demonstration on how to prepare cut glass, silverware, furniture, etc., to get the best results.

One of the most interesting demonstrations was by Howard Webster, our newly elected president of the Commercial section, who made a demonstration on coloring photographs before they are squeegeed. Mr. Webster was very good in showing the process to the photographers. He had one of the young ladies from his place in Chicago, who did the coloring in the hall, where we could all watch just how it was done.

The Big Ben Contest for the best still life picture of a Big Ben Clock went to Lee Saylor, and I understand there were over sixty entries in this class, as the prize of \$250.00 looked good to many.

The judges for the new slogan for the National Association adopted the following, and the winner, Mr. Isbell, was given a prize of \$250.00. Mr. Isbell is the advertising manager of Kings Palace, Washington, D. C., and his slogan,

"Where your heart is—
Your Photo ought to be."

met with general approval.

The officers for the year 1922 are as follows: President, G. L. Hestetler, Des Moines, Iowa; First Vice-President, A. H. Diehl, Sewickley, Pa.; Second Vice-President, Clarence Stearns, Rochester, Minn.; Third Vice-President, Blanche Reinecke, Kansas City, Mo.; Treasurer, J. E. Mock, Rochester, N. Y. Names and section of the country the Commercial Chairmen represent: Howard Webster, Chicago; Robert Blades, Eastern Division; Henry Heese, Southern Division; C. W. Howson, Northern Division; Eugene Andree, Montreal, Canada; H. J. McCurry, Western Division; Mr. Wykoff, Secretary, Detroit.

Entertainment—

The "ten cent" luncheon, held on Tuesday, July 19th, was a big success and a good many of us would be satisfied with that kind of a luncheon at that price every day.

The trip to Niagara Falls, on Thursday afternoon, will be a trip long remembered by those who attended. I think about fifteen hundred or two thousand were there. After arriving at the Park, Niagara Falls, we were met by a forty piece band, and the Francis Kilties Band. The Kilties led the march over to Goat Island, where a lunch was served, and then we started on a sight-seeing trip of Niagara, which lasted until dark, we then saw Niagara Falls illuminated, a wonderful sight.

It would be impossible for me to attempt to give a full account of the convention in one article, as there was too much to see. I have only attempted to hit the high spots.

In closing, I want to say one thing, that the officers of the Association, and the manufacturers, deserve great credit for giving us such a wonderful show.

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A PHOTOGRAPHIC MONTHLY

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San Francisco, California, August, 1921

No. 8

News

By December of this year we shall have accomplished what we set out to do; Camera Craft will have made good. Yes, by December we shall have caught up with our publication date and we are rewarded by the knowledge that none of our readers have been disappointed; they will all be able to complete their files. We will not speak of the extra work and expense this has entailed, that will soon be but a memory, to give place to the pleasanter thought that Camera Craft has satisfied readers.

Beginning with January, 1922, number, Camera Craft will again be published as a monthly; that will give us an extra week in each number to work for our subscribers; with that week we can do more. Photography today is a big thing, new ideas, new inventions are being brought forward constantly, and interested readers naturally will desire information on these topics.

To you, as an individual, we would ask, what do you know about photographs by wire or map-making with a camera by airplane? There are a host of other things we feel sure you would like to know. It is our intention to get in touch with as many as we can who are able to furnish first hand information. These and kindred subjects will become of general knowledge some day; the well informed man or woman desires to be a little ahead of some day, and so do we.

That we may be able to treat on more advanced subjects, or on familiar subjects more fully, we have decided to add sixteen more pages to Camera Craft, beginning with the January number. We need not "beat about the bush." We know, and you know, extra printing and extra paper costs money, and Uncle Sam will expect a little extra too. Now that we are talking of extras, would not the extra information you will get on the extra pages, be worth to you an extra five cents a month, or the fifty cents a year? We think so!

Camera Craft however does not intend to steal a march on any one, least of all, on old friends. Subscribers have the privilege of extending their subscriptions between now and December thirty-first at the old rate. We invite them to do so; also intending new subscribers should avail themselves of the opportunity to subscribe at the present price.

Camera Craft has always had the interest of amateurs at heart, has catered to them for years, and we know we hold their confidence. With more space at our disposal, we shall do more for them.

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The commercial and portrait photographer have found our advertising columns, Notes and Comment and occasional business articles, of interest; we could not offer more under existing conditions. With the increased space, there will be a department especially devoted to their interests, and this department will contain reports of photographic doings and improved methods practised, both at home and abroad.

Camera Craft has now been in circulation a little better than twenty-one years, we have experience behind us, and when we promise a bigger and a better magazine, we mean just what we say.—E. F.

For the Beginner

We are today witnessing the extreme popularity of soft focus, soft focus lenses are good, but so are other lenses, good. The point we wish the beginner to grasp is this, because it is soft focus it is not necessarily good. Art is not wooed by a subterfuge. The soft focus is a means to an end, it is not the end, remember. A sharp focus picture may be just as artistic as a soft focus one, so do not stress the soft focus too much.

It is a fact, the sharp or well defined picture appeals to some and appeals strongly, their instinct lies that way. It would be foolish to depart from that instinct, to adopt a method foreign to our nature, just because we might think it was the proper thing to do.

The reason is this: Your instinct and your individuality are You, the one is like to the other. Your individuality will ever be your most precious gift. If you lose it, you lose—You. That you, is what determines the standard of your work, it is the hall mark of your worth, the foundation of your being; it is precious. In photography, if that is your bent, it raises your work above the lens and the camera. Your camera really means nothing, your instinct, your individuality is everything.

We do not prophesy, but the thinking will realize when a practice becomes a fad, it gets weaker. At that stage, there is always someone who comes forward with the opposite to that fad, and we all jump at it, like hungry fish at a bait.

Soft focus for some subjects is proper, is delightful in fact, but soft rocks, soft iron and everything soft—let us pause and think.

Do not let anyone persuade you the clear and well defined must necessarily be inartistic. This is not so. The Flemish school of painting especially, has proved this point. Though it flourished long ago, its art, ever young, as all great art is, still stands in high esteem by students and collectors.

If your leanings then are toward the pictorial, and the sharp and well defined particularly appeals to you, we would advise you to secure some of the reproductions of the works of these great men, not to copy, but to study. You will notice their paintings are full of detail, but mark you, that detail is always—controlled. The average sharp photograph is also rich in detail, but that is detail—let loose. Learn to control that detail and your work will surely count.—E. F.



A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

Spotting and Taking Out Defects From Screen-Plate Color Transparencies

The films of all screen-plate color transparencies are very delicate, particularly the Autochrome, which calls for very careful handling. Many of the color pictures that I have seen bear witness to the fact that this essential was not fully realized by the photographer; for not only do spots, pinholes, and other defects manifest themselves, but many workers quite fail to take them out in a satisfactory manner, or ignore their presence altogether. Nothing tends to detract so much from the beauty of a color transparency than defects of the kind mentioned, and it is, to my mind, more important that they should be avoided or at least touched out even than is the case in ordinary photographic work.

I must first point out that the taking out of defects in a screen-plate color transparency must be adapted to suit the character of the image formed upon the plate; and, except under the most favorable conditions, involves some risk of making the last state of the transparency worse than the first. The photographer has therefore, on account of the peculiar delicacy of the plate, to make his choice of leaving the defect alone, or of risking the total spoilation of the plate; but it should be added that this is not very likely if the work is approached carefully and in a common-sense way. It cannot be too strongly emphasized, however, that the photographer must keep carefully before him how very delicate and easily injured the surface of an Autochrome plate really is, when compared with what an ordinary plate will permit in the way of wrong treatment without harm resulting. Further, even the simplest spotting, no matter how carefully done, will still be visible on the finished picture; and a bad defect, no matter how skilfully treated, is almost impossible to

eliminate entirely. From this it will be seen how important it is to prevent the possibility of such making their appearance, by careful, systematic methods of working, and by an implicit following of instructions.

One of the commonest defects met with among Autochromes is the green spots of various sizes, caused by the abrasion of the film, the varnish coating allowing moisture to penetrate the screen. The effect of water or even moisture, upon the more soluble dyes composing the screen is very rapid; and I have known a plate taken from its final brief washing, after the film has been slightly scratched, which developed a circle of intense green while the drying was in progress. It is quite possible for the film to be broken, and no harm result, unless the varnish protecting the screen becomes perforated as well, allowing the admission of moisture. These green spots are troublesome defects to get rid of, as they are often of quite a large size, and, by reason of their intensity, ordinary spotting is of very little use at all. There are two or three suggested methods of minimizing these defects, though I have yet to find one that is satisfactory, and not easily detected. The late Mr. McIntosh recommended that the spot be clean cut out—a job that I must confess that I have never yet succeeded in doing very successfully. A lantern, or other slow plate of the same size as the transparency is exposed behind the latter for a very brief period; developed in the ordinary way to obtain a faint grey image; and fixed and washed in the usual way. The spot is then worked up with transparent water colors, and registered with the Autochrome serving it for a cover glass. It must be kept in mind that it is difficult to "match" with hand work a chemical image. This applies more to color transpar-

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encies by the screen-plate methods than to ordinary methods of working up.

We now come to consider the taking out of defects caused by the damaging of the photographic film, without the screen being injured or discolored. It is sometimes possible to repair a scratch or vacant place in the picture by fixing upon it another piece of film of the same color taken from another spoilt plate. This latter is cut out very carefully with the point of a sharp pen-knife or an old safety-razor blade, keeping to the shape of the original defect as closely as possible. This latter is then given a fine coat of clear gum, the piece of new film gently coaxed into position and allowed to dry; after which any irregularities may be very much minimized by careful working up with suitable transparent water colors. The majority of beginners make the mistake of using too large a brush; most of my own work is done with a No. 2 sable. The colors should be used very dilute, for it is better to secure additional density by means of two or more applications than to risk matters by over much hurry or by the application of too much color at once. It should be kept in mind that these colors are really stain; and, once applied, are not removable like ordinary colors, even if the film of the plate would stand such treatment. No attempt must be made to wipe off the color if too much has been applied, for such would only injure the film. If any difficulty is found in making the color "bite" on the smooth surface of the film the brush should be moistened with a little clear, thin gum water prior to taking up the color. All spoiled Autochromes should be saved, for they are most useful for testing the effect and correcting the density of an application of color before experimenting upon a valuable transparency. If, however, an Autochrome is not available, an old negative may be employed for testing colors.

We come now to consider the spotting-out of simple defects such as pinholes; and there are very few plates indeed that do not call for some attention in this respect, no matter how careful the photographer may be. It is most important that, even for simple spotting, the transparent water-colors be used, and not the ordinary

artists' talc colors, since these are quite opaque and useless for the purpose. I have seen many color transparencies which were completely spoilt by these being used. Though almost all plates require a little spotting, it is a mistake to run the risk of overdoing this. The screen of an Autochrome plate itself will often allow small pinholes to be almost invisible, especially when they come against the sky or other brightly lighted part of the composition. In color work, in common with other forms of photographic spotting, it is far easier to take out or render less evident defects in the darker parts of the subjects than when these appear against a light portion. When spotting an Autochrome plate the beginner often works with his eye too close to the transparency, and then obtains a false sense of the amount of color needed to make the defect invisible. The larger the transparency the farther it is held from the eyes in the case of a person of normal vision, and a minute touch of the right color may have the effect of hiding an ordinary pinhole far more effectively than would a much deeper application. Too little care is often taken in adjusting the depth of color to suit the surrounding area; and in the proper observation of these details will be found the secret of success in spotting color plates. The actual spotting differs in no way from that employed on negatives and prints. A small pinhole should be completely blocked out with one touch with the point of a nearly dry brush, while a larger defect may be considerably modified with several touches. The idea is to fill out the defect with just enough harmonizing color of the same transparency; this grasped, there is little to add. Of course, no attempt must be made to alter existing colors or effects. Such may seem possible in theory, but, apart from being quite illegitimate, are unsuccessful in practice.

So far, I have mentioned the Autochrome process mainly, though much that has been written applies also to the Paget process, though I must say in my own experience spotting is less frequently necessary with this method, since the films of both negative and transparency plates are much harder; and, provided reasonable care is taken, the negative, or positive,

A PHOTOGRAPHIC DIGEST

should require little or no spotting. When this is required, however, great care must be taken not to carry things too far in the matter of spotting, by reason of the fact that a Paget color picture is much more transparent than an Autochrome. Also very careful mixing of the colors is essential, or the result will be that the pin-hole shows as a spot of intense color. My own plan, when a Paget color transparency requires spotting, is to attempt to do this on the negative, so that none whatever will be needed upon the transparency, and if this is done carefully, it will not be found a very difficult matter. As with Autochromes, the transparent colors must be used, for the additional reason that if the ordinary opaque artists' water-colors are used their somewhat gritty composition is almost certain to scratch either the viewing screen or the transparency when registering. This trouble need not be anticipated with the transparent colors, though the two plates should not be moved about upon each other more than is necessary, or the slight irregularity created upon the film by spotting may cause scratches upon the surface of the viewing screen. It will be found best to register the transparency prior to spotting, so as to gather some idea of the tint required; the two plates being clipped together while the colors are mixed and their effect tried upon a spoilt plate. The two may then be separated, any grit or dust removed and the spotting done. Care must be taken to see that the color is thoroughly dry before re-registering. During this stage the photographer must be careful to avoid removing the spotting by the friction between the glass; the movement should be very gently done, or scratches to one or the other of the surfaces may result. So far I have only mentioned the spotting of the transparency plate, but it sometimes happens that a tiny pin-hole in the viewing screen may be profitably filled in with a spot of color. It is only fair to add that this should be very gently done.

I believe that few workers varnish their Autochromes other than those required for lantern projection, owing to the difficulty that beginners always experience in getting an even application of the varnish. There is really no need to varnish color

transparencies, from the point of view of protecting them, though varnishing will protect any spotting during the fixing of the cover glass and binding up the picture. Paget color transparencies should not be varnished, as the interposition of even such a thin film between the plates would tend to prevent the perfect contact between them upon which depends the production of a perfect color result.

ROBERT M. FANSTONE.

—B. J. of Photography.

PARIS NOTES

Autochromes in Advertising

A most interesting and deservedly successful new departure has recently been made in bringing many of the chief French luxury trades to the notice of the general public. This has been done by means of the Autochrome process, which, in serving the purposes of advertisement, has itself obtained considerable reclamation. The "Salon of French Taste," which opened last month in the Palais de Glace, Champs Elysees, Paris, contains more than 1,800 Autochromes of all sizes, from 7 x 5 inches to 16 x 7 inches (the largest size made), representing jewelry, glass and pottery ware, enamels, bookbinding, tapestries, furniture, lighting accessories, and all articles of dress and toilet, and even carriage work. These Autochromes, in company with a number of colored transparencies from 14 x 10 to 24 x 20 inches, are mounted in frames and are illuminated by concealed electric lamps. The color reproductions of the goods of each 250 exhibitors occupy a separate panel, and these panels are systematically arranged in twelve alcoves erected in the rotunda of the Palais de Glace. The conception and organization of the whole exhibit have been perfectly carried out in all respects, and reflects the greatest credit upon its designer, M. Devries, and equally upon the makers of the Autochromes, MM. Desboutsins and Ventujol. The exhibition has been a revelation of color photography, and the Autochrome process to the public unfamiliar with photography; and the reviews in the newspapers have shown a widespread ignorance, on the part of the Press, of the existence of the Autochrome process. One daily journal refers to it as

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"having apparently been invented by someone named Lumiere about the year 1907." The exhibition remains open until the end of September, and I can strongly recommend any of my readers who may be passing through Paris this summer to set aside an hour for a visit to it. After it has come to an end in Paris, the exhibition is to be transferred in turn to the capitals of several countries in which French luxury goods find their principal markets, and hence has been dubbed "an exhibition in a portmanteau."

Fugitive Colors

It is very desirable that those who color photographs should ascertain whether the pigments or dyes which they use are permanent, as many of the more delicate colors are more or less fugitive, especially in the "students'" quality. A simple method of testing is to take a piece of good quality drawing paper, and to paint a strip of each color across it, graduated in the direction of the width from full color to a pale tint. A piece of black paper should be pasted upon a glass plate so that it will cover each strip halfway, and the whole thing put into a printing frame and exposed to the strongest daylight available. Some tints will show a decided alteration to a single day's exposure, while others will not be materially weakened in a month. It is advisable to put a layer of waxed paper between the black mask and the colors to prevent possible impurities in the former from having any action. Considering the small quantity needed it is good policy to use the best or "artists'" quality colors, as not only are these more reliable but less

is needed to produce a given tint. When using dyes, great caution is necessary in combining colors, as some are mutually destructive, or one color may fade out and leave the other. We have seen a brown make by mixing red and green, show only the latter after a month or so.—B. J. of Photography.

Dry Mounting

During damp weather it is sometimes found that prints adhere to the metal plate when dry-mounting them, or to the sheet of paper which is sometimes placed over the print to prevent contact with the metal. It is safe to assume that this trouble is due to dampness of either the mount or the print. The moisture, being converted into steam, softens the gelatine and causes it to stick. It would almost seem to be superfluous to point this out, but the fact is that the dampness is often unsuspected. Gelatine is in itself a very hygroscopic substance, and after having been thoroughly dried will absorb a considerable amount of atmospheric moisture, while mounts which have been kept in even a slightly damp place will give off steam if heated. There is also danger of producing more or less glossy marks upon the face of a damp print during the process of "tacking on" the tissue. The remedy is, of course, to put the prints in a dry, warm place for an hour or so before mounting, and to store the mounts away from damp. A fresh delivery of cardboard (not paper) mounts, may not have been perfectly dry when dispatched, and if this be unobserved may be the cause of spoiling good prints.—B. J. of Photography.



THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

Picture Composition

When one essays to write on composition it is at the risk of having his contribution turned down by many of his readers.

The subject looks unattractive, and by many, even the more advanced photographers it is regarded as a sort of fanciful subject, having little or no bearing on photography. Some of these workers contend, that as we can not control the position or placing of objects in our views, of what use to burden ourselves with rules as to their placing. In other words, we shall have on our photographic plate or film just what our lens gives us; so what is the use anyway?

This system of reasoning will be accepted by many; on the face of it, it seems so reasonable but this seemingly reasonable, though erroneous conclusion was arrived at because our starting point was at fault. If we go further back, let us say to the beginning, from which a start should logically be made, we shall find this apparently reasonable conclusion is unreasonable and wide of the mark.

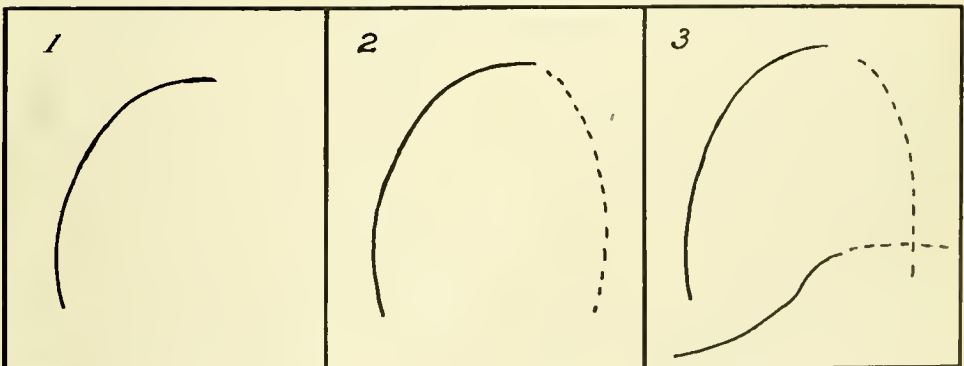
All objects in nature have a base, a framework as it were upon which nature's beauty is displayed. We note it in trees,

in flowers and so on. We are attracted by their beauty long before we appreciate the reason for it, we may be delighted by the leaves and flowers, before we recognize the cause of their shapings. But in man's development as he cultivates thought, he discovers the reason, and that reason proves to him that most of that beauty is based on a geometrical foundation, and is dependent upon it.

Beauty then came first and man later studied the cause of that beauty, and this cause when proven became a rule. We may ignore this rule if we choose, as some do, but it is not disproved.

I now go back to pictures; like flowers some pictures are things of beauty, all are intended to be beautiful and most of them would be, were the makers of them versed in the basic principle which we term composition.

This composition when examined, also resolves itself into a geometrical base, that same orderly base was the reason for the flower's attractive form. On the other hand if this orderly foundation is at fault the blossom becomes a freak, sometimes a monstrosity. So with the picture, a faulty foundation is regrettable, and labor is lost.



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The object of composition is to enable us to present our work in a more pleasing form. Composition in a picture serves exactly the same purpose as grammar does in language. A sentence may be very ungrammatical and yet we may comprehend its meaning, but that is not enough, education, or what we are pleased to call refinement demands more. Composition then is the grammar of pictorial language and both are the result of civilization.

It will be found a real advantage to the photographer if he or she will devote a little time to the study of pictorial composition. One need not go into the subject deeply, a general idea will suffice, but we should assimilate thoroughly the little we learn, that the knowledge we have gained may be available instinctively. If the rules are to be forced into our work the result is apt to be fantastic. I once saw an instance of this and the result was ridiculous. It was the work of a professional photographer, the subject was the portrait of a lady and she was standing beside a chair and holding the back of it, and by this means the chair was tilted so that its sloping side formed one side of a triangle, the lady's body by leaning towards the chair furnished the opposite side of the angle. The whole thing looked as if the photographer had recently read an article on angular composition and he was determined to show he knew "what's-what" or break his neck—he simply "broke his neck, that's all."

When we thoroughly understand composition we shall use it "artlessly" and never flaunt our newly acquired knowledge in vulgar fashion.

It will be sufficient for our purpose if I show the novice how beauty in a picture may be resolved to its geometric base. It will bring home to the reader a means of quickly recognizing the better of any two positions that may present themselves to the photographer when selecting his point of view. Some experience a difficulty in this selection, and in consequence contend with an uncertainty, which is always more or less disturbing.

Here is reproduced a very pleasing country road, a photograph from nature as you will see. To those wholly unacquainted with composition this scene might

have no appeal, but the photographer who made this picture simply could not pass it by. Now that we have the view presented to us as a picture most readers will I think pronounce it an effective little bit. Perhaps many would not know why they like it, and just why the picture has an appeal. The knowledge of this fact will certainly enable us to appreciate other somewhat similar views, and encourage us to resolve other views to their basic formation.

Let us study the diagram a moment, it gives us the geometrical base, the pattern of this picture. If the pattern is pleasing it is natural to suppose a picture on the lines of that pattern would be pleasing too.

In figure 1, of our diagram we have a curved line to our right enclosed in a rectangular space which we might call the frame or edge of our picture. This curved line in that space is more pleasing than a straight line would be.

In figure 2, this curved line is shown opposed to another line, curved in an opposite direction and shown dotted. This dotted curve appears to support the first curved line, holds it up as it were and gives the sensation of security.

In figure 3, we have a compound curve lying on the ground that suggests the connecting together of the two upright curves at their bases. The geometric form we thus have based on a triangle is strong; we do not feel the want of anything, the construction is complete, we can not spare anything.

Figure 3 then, is the pattern of this particular landscape, the first curve sweeping upwards from left to right, represents the tree on the left of the picture, the dotted curve represents the trees on our right, and the compound curve is the roadway that binds the foreground and distance together. The "construction" of the picture is excellent; of course the photographer did not construct it as a painter would naturally have to, but it was on account of that construction which he was able to appreciate that the photograph came into existence.

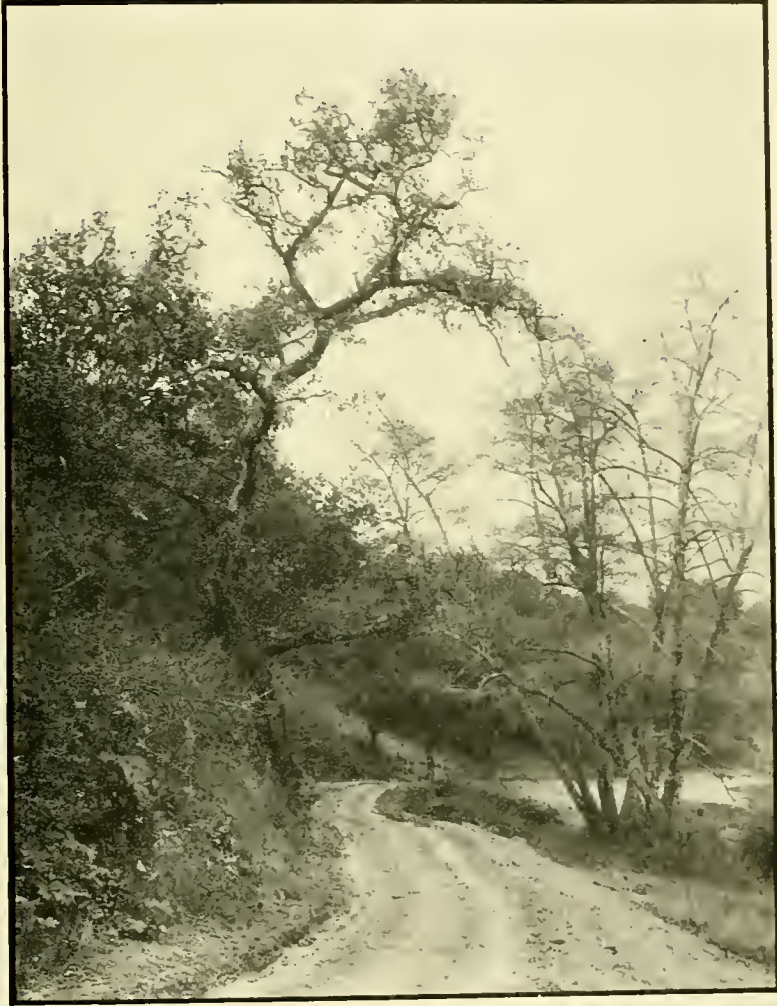
This picture as good as it is could have been improved by a tint in the sky graded lighter downwards. This would have had

THE AMATEUR AND HIS TROUBLES

the effect of introducing atmosphere and giving distance, besides the darkening at the top of the print would prevent the eye from slipping off and out of the picture in that quarter as the eye

has taught, art lies in concealing art, there is nothing truer.

Suppose we have a landscape with a tree that gives us a pattern like diagram figure I, and let us say this tree was on or near a



Photographed by W. H. Whyte

would return into the picture, about its center where the lighter sky showed; this is another object in composition, to keep the eye in the picture, if it is allowed to wander off, the work is soon forgotten.

I can not warn the reader too strongly against the danger of allowing the rules of composition to become master. These rules must serve, not conquer you. Experience

hilltop and the background consisted of distant hills, still, this style of composition would serve. All we need are clouds floating in an opposite direction drifting upwards, and we again get our support. This support is always an artistic never a mechanical one.

Attention to these matters count, and lift one photograph above another, even if that other is pronounced "just as good."

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

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NEW MEMBERS

4990—Melvin Parrish, Athens, Ill.

Up to $3\frac{1}{4} \times 5\frac{1}{2}$, Azo and Cyko of Genre and Land-
scapes; for the same. Class 1.

4991—J. W. Arnold, Commercial Hotel, Butler,
Missouri.

4992—Nicholas Soon, Kipahulu, Maui, Hawaii.

Class 2.

4993—C. Deyo, 268 Dundas St., London, Ontario,
Canada.

Class 2.

4994—Najjarian Bros., Photographers and Photo
Dealers, Alembly St., Beirut, Syria.

$5\frac{1}{2} \times 8$, Bihete, gaslight and post card of miscel-
laneous; for stereoscopic views or sepia post cards.

I desire to exchange only sepia toned post cards
with formula and explanation if possible. Class 1.

4995—Edouard Tourneur, Oakley, Kansas.

Class 2.

4996—Miss Celasta Prine, Parlier, Cal.

Various sizes of general subjects; for anything of
interest.

4997—Homer S. Wyatt, Box 57, Salisbury, North
Carolina.

Class 2.

4998—Harold W. Clark, 256 Thrift St., San Fran-
cisco, Cal.

$2\frac{1}{4} \times 3\frac{1}{4}$, $3\frac{1}{4} \times 5\frac{1}{2}$, enlargements to 8×10 , Velvet
Velox and P. M. C. No. 7 and No. 8 of landscapes
and pictures of California Missions; for land-
scapes and marine. Class 1.

RENEWALS

4001—Fred Weidmann, 1692 Second Ave., New York,
N. Y.

4126—John Bieseman, Box 136, Hemlock, Ohio.

4269—W. A. Gillespie, P. O. Box 156, Stamps, Ark.

Will exchange for pictures of notable people and
places, figure studies, etc.; for the same. Class 1.

4503—C. W. Maddox, Box 64, Butler, Mo.

Developing papers of views from the South and
West and local views of the town; for figure
studies and anything of general interest. Class 1.

4622—A. G. Cronacher, 1263 Elizabeth St., Kenosha,
Wisconsin.

5×7 of landscapes and sunsets; for the same.

Class 1.

4808—Dean P. Holmes, 11 West Second St., La
Junta, Colo.

$2\frac{1}{4} \times 3\frac{1}{4}$ to 5×7 and enlargements on developing
paper of fires, wrecks and mountain scenery; for
anything of interest, but especially beach scenes,
bathing girls, ships and marine views. Class 1.

4817—J. J. Kimmel, Plainville, Conn.

4829—Daniel Holcomb, R. F. D. 2, Cogar, Okla.

Class 3.

4834—Leo E. Fitzgerald, R. F. D., Charlton, Mass.

$2\frac{1}{4} \times 3\frac{1}{4}$ on developing paper of landscapes, build-
ings, animals, etc.; for historical subjects, aero-
planes and portraits. Class 1.

4978—Chas. E. Skeen, Box 52, McFarland, Cal.

CHANGES OF ADDRESS

4452—W. R. McBlain, 6604 Vermont Ave., St.
Louis, Mo.

(Was Box 172, Ft. Monroe, Va.)

4980—S. Marchese Ph.G., 3629 Ave. "I," Brooklyn,
N. Y.

(Was 552 Henry St., Brooklyn, N. Y.)

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

While the notices under this heading are strictly in the nature of information and news for the benefit of the reader, and are neither paid for nor actuated by our advertisers, we are compelled by the Postal Laws to mark them as follows:—Advertisement.

Reported by William Wolff

Fred Seyler of Tapprel, Loomis Co., Chicago, was in San Francisco early in August.

J. F. Zink of Chico spent a few days in San Francisco recently. Reports business very good in Northern section.

Frank Davey of Palo Alto was a caller recently.

Dr. V. C. Billingsby of Hayward, who owns Billingsby Hospital in that city, bought some new equipment for his X-Ray laboratory, which now is one of the best in the State.

Sam Ross, manager of the Hartsook Studios, is touring the State, visiting the different studios.

Hirsch & Kaye are now settled in their new handsome six-story building at 239 Grant Avenue, San Francisco. When in the neighborhood, drop in.

Mr. Burns, of Marsh & Company, is spending a few weeks in Southern California.

Bud Hawks, son of Nelson Hawks of Alameda, is making his annual visit to his father. Bud is now located in Tahiti; was formerly in the photo business with his Dad—years ago. Welcome to our shores again, Bud.

Mrs. Nelle Mardorf of Chico, California, visited the city of San Francisco on a little vacation trip.

Mom Beck of "Little Colonel" Fame Is no More

Mom Beck, counselor and confidante of the beloved "Little Colonel," the heroine of Annie Fellows Johnston's famous Little Colonel Series (The Page Company, Bos-

ton) is no more. Rebeccah Porter, the aged negro woman on whom the character in the stories was based, died recently at the home of her son in Louisville, Kentucky. Her death will be regretted by thousands who never saw her personally. In the letters constantly received by Mrs. Johnston from youthful readers inquiring whether the characters in "The Little Colonel" books were real, questions about Mom Beck were invariably included. She spent most of her time in Pewee Valley, the scene of "The Little Colonel" stories, and the home of their author, but in pre-war times was a slave owned by the Conways of Virginia.

The Fifth International Photographic Salon

We all feel a sense of pleasure in contemplating a success. The coming exhibition of the Camera Pictorialists of Los Angeles to be held in that city from December 12th-January 2nd, 1922, will be the fifth annual event, and the members of this association are to be heartily congratulated at what they have accomplished, and are accomplishing.

From its lofty perch in the Spreckels Building, Camera Craft gazes southward, and it sees a group of photographic enthusiasts banded together to achieve one big thing—success. These photographic artists, no matter what their calling in the business world, are all true amateurs—they do this work because they love it.

Under the incentive of this enthusiasm anything is possible and the fame of this pet child of theirs, has gone to the cities

CAMERA CRAFT

of men, all over the world. This child, this darling of a few ardent ones, has now reached its fifth birthday, and its beautiful smile, bids the whole world come with its best in pictures, to a beautiful city.

In all undertakings we know the real work must fall on a few, though all share the glory. Camera Craft reaches forth and waves a hand at the few, with best wishes and greetings—good luck!

The Camera Pictorialists of Los Angeles have, in the past years, endeavored to present to the public only the best in Pictorial Photography. Its standards have been high but in view of the expected increase in participation this year the Salon Committee feels the necessity of placing the standard governing the acceptance of prints upon a still higher plane.

The jury will be instructed to accept only those prints which exemplify the utmost in pictorial endeavor, with the purpose of presenting an exhibition which will bear the closest analysis.

Selection of prints for exhibition will be by jury, an effort being made to obtain the services of such artists as are competent to judge contributions according to highest pictorial standards but with full understanding of the Photo-Pictorialists viewpoint.

N. B. In order to avoid delay in the foreign mails, customs, etc., Foreign Exhibitors are urged to send prints at the Earliest Possible Date.

Last day for receiving prints, Saturday, November 26, 1921.

Louis Fleckenstein, Director, 31 Walker Auditorium, Los Angeles, California.

Focal Plane—Vest Pocket

At last we have the camera that some amateurs have wished for. Enthusiasts before now have made hand cameras or rather adapted hand cameras of the box type, with a lens of the moving picture kind. The reason they did this was, they wished a lens of great light capacity, also, they desired practically unlimited depth of focus. The feeling with these photographers was—"We want it in the negative, even though small, we can easily enlarge it."

These homemade outfits were well enough in their way, they were clumsy, it

is true, but they were the best that could be procured at the time.

The Ernemann Miniature Focal Plane for the Vest Pocket, is something Herbert & Huesgen Co., the American agents, are well satisfied with, it is a jewel in its way. This camera is fitted with the Carl Zeiss F:3.5 lens; some speed, you will say, it certainly has that, and the focal plane shutter will pass every bit of the light that comes through this wonderful lens. There is another enormous advantage, that is the extraordinary depth of focus. Any photographer who has done snap-shot work on crowded streets knows how difficult it is to secure a high average of success with lenses of longer focus than this one has, some part of our picture is blurred, through some one stepping into our field of view just at the critical moment, naturally our negative is faulty, that "cussed cuss" is blurred. We speak feelingly, from years of experience photographing for the daily press. Is it not something to know an accident like this could not happen with the Focal Plane Vest Pocket Camera? The picture this camera makes, naturally is small, $1\frac{1}{2} \times 2\frac{1}{2}$ —but we all know what enlarging can do with a good negative.

The focal plane shutter, operating to 1/1000 of a second, enables it to do the work of a bulky reflecting camera, yet it is constructed with such watch-like precision as to go into the vest pocket. No wonder this efficient instrument is popular with sportsmen, travelers and all who require the finest instrument in the smallest compass.

This camera opens in an instant for service, its equipment includes a large direct view finder, ground glass with focusing hood, 12 single plateholders in case, and adapter for standard size film.

Herbert & Huesgen Co., 18 E. 42nd street, New York City, wish to send you complete information, better get that information, it will make you familiar with the latest.—Advertisement.

Ilex-Acme Lenses and Shutters

We wish to call the attention of readers to the two advertisements of the Ilex Optical Company appearing in the present issue of this magazine.

The Ilex shutter has long been recog-

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nized as one of the very best shutters on the market. Many photographers claim their superiority, and their preference for these shutters, on account of their precision. The very fact of these shutters having been adopted by various manufacturers as part of the equipment to hand cameras of their own make, is the highest kind of testimony as to the merits of these instruments.

A lens, be it ever so good, is seriously handicapped with a faulty shutter. Any kind of lens is aided by an efficient shutter, it must be so made as to pass the greatest amount of light possible for its type, and it must be reliable on all occasions.

The Ilex fills all these requirements and has held its place in the photographic world on its merits.

The Ilex Optical Company has also an announcement bringing to your notice their line of high-grade lenses. They are manufacturing these lenses on the latest formulas, and they are also busy on some new types of instruments destined to attract favorable notice from photographers generally.

The Ilex people now offer what the professional and amateur photographer has long waited for, the Ilex-Acme Combination.

The newly developed portrait lens built upon "The Petzval Portrait Formula." This is a remarkable instrument, and when fitted with the new Ilex Studio Shutter of eight speeds, makes an ideal studio outfit. This lens works at F:3.8.

A modified form of the Petzval Type, is another portrait lens working at F:5. This lens is not so rapid as the one just mentioned, and it is offered at a lower price, but for the photographer needing a first-class portrait objective at a very reasonable cost, this F:5 is to be recommended.

The Acme-Anastigmat Series "C.," F:6.3, is a high-class general purpose lens, an invaluable lens for the hand camera, in its smaller sizes, and the larger sizes will be found equal to all commercial requirements, viewing, architecture, copying and so forth. Then we have the Series "D.," a lens equal to the above in everything except speed, it is a little slower, but will meet a wide range of usefulness.

Now comes the Acme Rapid Symmetrical working at F:8, a lens bound to be very popular. This is a triple convertible objective, each element can be used separately. Most amateurs will see the advantage of a lens of three different foci, for we really possess three lenses in one, it has economy to recommend it, for we can make three different sized pictures with the same instrument.

Write to the Ilex Optical Company, Rochester, New York, for their catalogue and note their list of prices for these high class instruments.—Advertisement.

A Home of Quality

Much time is devoted by the average person interested in photography in the selection of a camera or lens, but little thought is given as to whom it is to be purchased of.

No mistake, however, will be made whether or not you are interested in a new or slightly used camera or lens if "Lasky's," the popular San Francisco dealer, located at the hub of San Francisco's busiest street, 832 Market Street, is selected.

They are able to serve you in a most satisfactory way, whether it be a Domestic or Foreign Camera, Lens, Shutter or other photographic equipment.

Here you will find displayed the finest of Cameras and Lenses, etc., including the famous "Ica" Cameras, "Goerz" Cameras and Lenses, Carl Zeiss Lenses, "Contessa" Nettel Cameras, and a complete line of Domestic and Foreign Reflecting Cameras.

They can indeed serve their patrons well for they have an excellent, modern equipped darkroom where the finest work prevails, whether it be contact printing, bromide enlarging, copying or coloring.

An optical department is maintained, where the fitting of glasses, the replacement of broken lenses, etc., is done with precision and finesse. Here also you will find an excellent stock of field glasses and prism binoculars, both domestic and imported.

Whether you consult with, or correspond, you will find Lasky's at all times ready to furnish catalogues or in any other way help you in the selection of the proper outfit for your requirements.—Advertisement.

CAMERA CRAFT

Improved Film Packs

The reader's attention is called to the "ad" of "Agfa" Film Packs, which are now obtainable on the American market. These packs are of all metal construction, which insures perfect focal plane during the exposure. The film is also of much greater speed than other film packs, the film is also heavier stock and is not coated on the reverse side with gelatine, thus the negative can be either hung up to dry or pinned to a board. The "Agfa" Film Pack is fully orthochromatic and non-halation. The metal containers can be used for a negative file after the pack is developed. Prices are the same as the American Film Packs.

The advanced photographer will at once grasp the advantage of the film being on heavier stock. It is a real improvement to be free from the gelatine coating at the back of the film, that removes one additional danger from accident.

It is also of much importance that this improved film pack may be purchased at the same price we have been in the habit of paying.

Then there is the outstanding fact of true focal plane. Many skilled photographers still prefer to put up with the extra weight of glass plates. They were not satisfied with the thin cut film on account of their fear of its buckling, thick films are not subject to this, and that counts greatly in their favor.

We are pleased to advise our Western readers that Hirsch & Kaye, 239 Grant Avenue, San Francisco, have been appointed Pacific Coast distributors of the new "Agfa" Film Pack, which will insure quick supply.—Advertisement.

The Rexo Developing Kit

We have received from Burke & James, Inc., of Chicago, the Sweetland Patent developing kit. This we believe is the very latest device for daylight roll film development. With the outfit comes a book of instructions as to its operation. Operation is rather a big word for this exceedingly simple process.

When the little box that reached this office was unpacked, it revealed a very neat leatherette wallet of a size to fit a man's pocket, and this wallet held what

was really a developing outfit and dark room combined.

When this contrivance lay spread out on our desk, we felt we were looking at just what the amateur photographer, and traveler also has long needed, a developing outfit of extreme portability and of sure action. Now we are tempted to remark, queer, how long we have waited for such a simple, efficient thing.

As the developing bag is something so new, embodying a very original idea, we will describe the working with it, to give general knowledge. The book of instructions that comes with the outfit is so clearly written and well illustrated, that the reader will be struck with the great simplicity of the work. Follow instructions and one can not go wrong.

The size A outfit is suitable for roll film of six exposures from size 3A down, and for "vcst pocket" size, having eight exposures. This is the most generally useful size.

The rubber bag which is dark room and developing tank or tray combined, is "loaded" in the following way. Take out the exposed film from your camera and in the ordinary light of your room, unroll the spool carefully, when you glimpse the end of your sensitive film cut off with a pair of scissors the projecting paper wrapper, which protects the film from the light. Now take the small clip and fix it on the end of the protecting paper strip, and with the medium sized clip, grasp the end of the film itself. Still holding the roll in the right hand, insert it into the far, or bottom end of the bag, at the same time gathering the bag up on the right arm as far as the elbow, like a long glove.

Now grip the clip holding the end of the film with the left hand from the outside of bag and at its end, then withdraw the right hand holding the small clip fastened to the paper wrapping. With the right hand will come the paper wrapping, while the left hand holds the film. By this means the paper and spool is withdrawn, leaving only the film in the bag, which must be face up. There is a little trick to this manipulation and an illustration makes it perfectly plain how to remove the paper wrapping and spool without letting the light get into the bag, it is sim-

NOTES AND COMMENT

plicity itself. Having liberated the spool, we take the third and remaining clip, and grip the outside of the bag with it which is doubled over at the end of the film, this clip is not placed right across the bag, but only about two-thirds of the way across, its purpose is to partially close the bag and at the same time hold the free end of the film in its place. The film is now flat in the bag.

Water is first poured in to remove air bubbles, by pressure with the hand and gently rubbing for about half a minute. the water is then poured out and developer introduced. In five minutes the developer is removed, the film rinsed in the bag, with three changes of water. It is then removed from the bag and placed in the hypo to fix.

Some readers will think it impossible to pour water or developer into the bag and not have the film light struck. We can assure them their belief is groundless, and the proper way to satisfy their curiosity is to go to their stock-house and be shown, or, by writing Burke & James, Inc., 265 East Ontario Street, Chicago, Ill., for full particulars.—Advertisement.

An Artistic Romance

The Page Company announces the publication of *A Flower of Monterey*; A Romance of the Californians, by Katherine B. Hamill. The wealth, beauty and sunshine of the Californians in the days when Spain controlled our western coast and England looked with covetous eyes, form the setting for this interesting romance by a new author. Pajarita, the "flower of Monterey," is an American waif, cast up by the sea, who grows up among the senors and senoritas, happy as the sunshine, but with a healthy American disrespect for the Spanish modes of life. Two men love her—Don Jose, the gobernador propietario of all the Californians, and a young American sailor-adventurer, John Asterly. The historical setting of the story is correct and the romance unfolds with dash and symmetry.

List of Patents Granted During the Month of July

1,383,733—Film Developing Rack.—N. E. Loboshez.

1,384,143 — X-Ray Apparatus. — W. Meyer.

1,384,144 — X-Ray Apparatus. — W. Meyer.

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No Design Patents. No Trade-Marks.

CAMERA WANTS

POSITION WANTED A permanent one as retoucher; 20 years' experience; excellent references furnished; desires to learn operating, can assist with mounting, printing and spotting; expert at framing pictures. Address Mrs. H. M. Exton, 530 W. 5th St., Fort Wayne, Ind.

POSITION WANTED In first class large city studio as head retoucher and assistant operator or full charge of branch studio, by lady of years' experience. Address I. H., care Camera Craft, San Francisco, Cal.

FOR SALE Auto Graflex Jr. with Kodak anastigmat, f-4.5, film pack adapter, two plate holders, carrying case and No. O Premo film pack tank. All nearly new and perfect, \$80.00. Wanted, 5x7 Turner Reich or Ic Tessar lens. M. E. Fournier, General Delivery, Yosemite, Cal.

FOR SALE Ensign Reflex camera, 3 $\frac{1}{4}$ x4 $\frac{1}{4}$, f-4.5, Cooke lens, 12 metal plate holders, film pack adapter, cable release. List, \$146.50; sell for \$105.00. Light and compact, practically new, condition guaranteed perfect. C. T. Jennings, First National Bank Bldg., Butte, Mont.

FOR SALE Series V Korona camera, triple extension bellows, R. R. lens, Auto shutter, leather case, three plate holders, film pack adapter, list, \$65.75; sell for \$37.50. Condition new. Fine outfit for nature or pictorial photography. C. T. Jennings, First National Bank Bldg., Butte, Mont.

FOR RENT Photograph studio in city of 150,000, in new Fine Arts Building, containing vocal, instrumental and dancing studios. Fine location and reasonable rent. Will sell on payments to responsible party if desired. Address, Arts Studio, 1024 W. Grand Ave., Des Moines, Iowa.

TRADE New professional De France motion picture camera; 400-foot style; all trick devices forward and reverse crank, Bausch & Lomb Tessar lenses 50mm., Series Ic; new Bell and Howell tripod, extra magazine, Lomb dissolve, 800 feet of raw stock. Will trade for \$1000.00 equity. Address Equity F. E. Leiser, Burlington, Iowa.

CAMERA WANTS

Advertisements of the nature shown below will be inserted under this heading at the rate of fifty cents each insertion, for twenty-five words or less; each additional word, two cents extra, cash with order. Those of positions wanted inserted once free. No regular business advertisements accepted. These advertisements MUST BE PREPAID.

FOR SALE Studio and Equipment in town of over 1,000. No other studio less than 20 miles. Right in center of fine rich farming country. Lots of Kodak finishing, Picture framing, enlarging and general portraiture. Large territory to draw from. Will sell at a bargain. Privilege to buy building and all complete. Good reasons for selling. If interested write at once. The Arnold Studio, William Rosentrater, Photographer, Arnold, Neb.

A BARGAIN Seneca Roll Film Camera, $2\frac{3}{8} \times 4\frac{7}{8}$, Autic shutter, Wollensak anastigmat lens, f-7.5, perfect condition, sell for \$23.00; cost \$40.00. Theodore Olson, 528 Market St., Portland, Oregon.

FOR SALE Mentor 4x5, revolving back reflecting camera, Focal Plane shutter 1/1300; complete with holders, film pack and roll holder, no lens. \$45.00. Edward Emerich, 1440 Diversey Parkway, Chicago, Ill.

PHOTO STUDIO For Sale, best location in San Jose, Cal.; suitable for one man or couple. For particulars, address Box 16, care Camera Craft, San Francisco, Cal.

FOR SALE Two business lots, studio building, 40x28 feet, stuccoed, skylight, 4-room cottage in rear; population 20,000, on bay, 15 miles from San Francisco, factory city, seaport, growing rapidly, no real hot or cold weather, lots of work, good proposition for good man. Property without business more than worth what I ask. Well because of wife's health. Price, \$6,000.00. 255 12th St., Richmond, Calif.

FOR SALE One 5x7 View camera, 14x5 Century Grand Rev. Back triple extension, Graphic finder; One 7-inch Dagor Lens in XL Sector shutter. Can be used on both cameras. All in A1 condition, for \$75.00. J. M. Santos, Box 393, Livermore, Cal.

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FOR SALE New \$60.00 camera, like Paxta Press, rear focusing mirror, Wollensak lens, six holders, film adapter, sacrifice \$25.00. Hall, 1726 Spring Garden, Philadelphia, Pa.

FOR SALE 8-inch Eastman Circuit, new; made six pictures, completely equipped Turner Reich convertible anastigmat, cash \$250.00. Cochems, 323 East Chestnut St., Santa Ana, Cal.

FOR SALE Here is a bargain in a Halldorson Studio Flash Cabinet. Like new. Regular price, \$150; \$97.50 takes it. More information upon request. Address, H. S. F., care Camera Craft, San Francisco, Cal.

FOR SALE Here is one of the biggest bargains in a printing machine that we have been able to offer for some time. A practically brand new Type B Presto Printing Machine with double top, 14x17 openings, five drawers; the kitchen cabinet of the dark room. One of the best professional printing machines on the market. Regular price, \$165. To the first one ordering we can sell this one, which is practically new, for \$100. Price subject to prior sale. Address Northern Photo Supply Co., Minneapolis, Minn.

FOR SALE First class studio in new "Fine Arts Bldg." on principal street in city of 150,000. Will sell \$500 cash. First come first served. Address J. A. Shepard, Rms. 258-260 Fine Arts Bldg., Des Moines, Iowa.

FOR SALE Ground floor photo studio building, with full equipment. Modern. Soft city water, electric lights, steam heat and sewer. Fine room upstairs. Only studio in one of the best towns in Minnesota. A bargain if taken at once. Poor health. Want to retire from business. Inquire M. J., care Camera Craft, San Francisco, Cal.

FOR SALE Modern studio outfit and fixtures for 1,000. Nearest studios from 15 to 30 miles. Fine farming and dairy district. A bargain for someone. Going out of business is my reason. Address A. N. H., care Camera Craft, San Francisco, Cal.

WANTED TO BUY New or second hand R. O. C. Postcard Printer. Must be in good working order and at a bargain. State condition and price in first letter. Address J. B. K., care Camera Craft, San Francisco, Cal.

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FOR SALE A real bargain: nice equipped studio in one of the finest cities in California; population 50,000, good location on main street, low rent everything to work with; 8x10 outfit, tanks, Pa-Ko printer; cost \$1,000.00 to rig up, will take \$600.00 cash for quick sale. Interested in other business, reason for selling; splendid chance for man and wife. Address S. F. P., care Camera Craft, San Francisco, Cal.

FOR SALE Anso V. P. S. lens; 4x5 camera; 5x7 camera; 5x7 R. R. lens; 5x7 high grade symmetrical lens. Want 8x10 wide angle lens, telephoto lens, enlarger or enlarging back. W. Price, 2905 W. 1st St., Los Angeles, Cal.

FOR SALE No. 3 Brownie, \$2.50; No. 4 Panoram Kodak, \$10.00; new 2A Rexoette, \$2.50; Pocket Seneca, 4x5 adapter, \$2.00; Premo Jr. box, 2x3, \$1.00; 3A Conley camera with adapter, no lens, \$5.00; new 1A Rexo Jr., \$10.00. Include postage. Goodwin Studio, Mandan, No. Dakota.

EXCHANGE New Eastman No. 2, 8x10, f-6.3, Velostigmat, Optimo, holders, reducing back, accessories; for like condition 4x5 T. R. B. Graflex, f-4.5 lens, adapter. O. F. Smith, 306 No. Birch St., Santa Ana, Cal.

FOR SALE $3\frac{1}{4} \times 5\frac{1}{2}$ Compact Graflex, fitted with Velostigmat f-4.5 lens, film pack adapter, perfect condition, \$110.00 cash, no trades. F. H. Maybury, 623 Poydras St., New Orleans, La.

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SAN FRANCISCO
CALIFORNIA

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JANUARY 1922

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CAMERA CRAFT PUBLISHING CO.

Claus Spreckels Bldg.

San Francisco

California



CAMERA CRAFT

A Photographic Monthly

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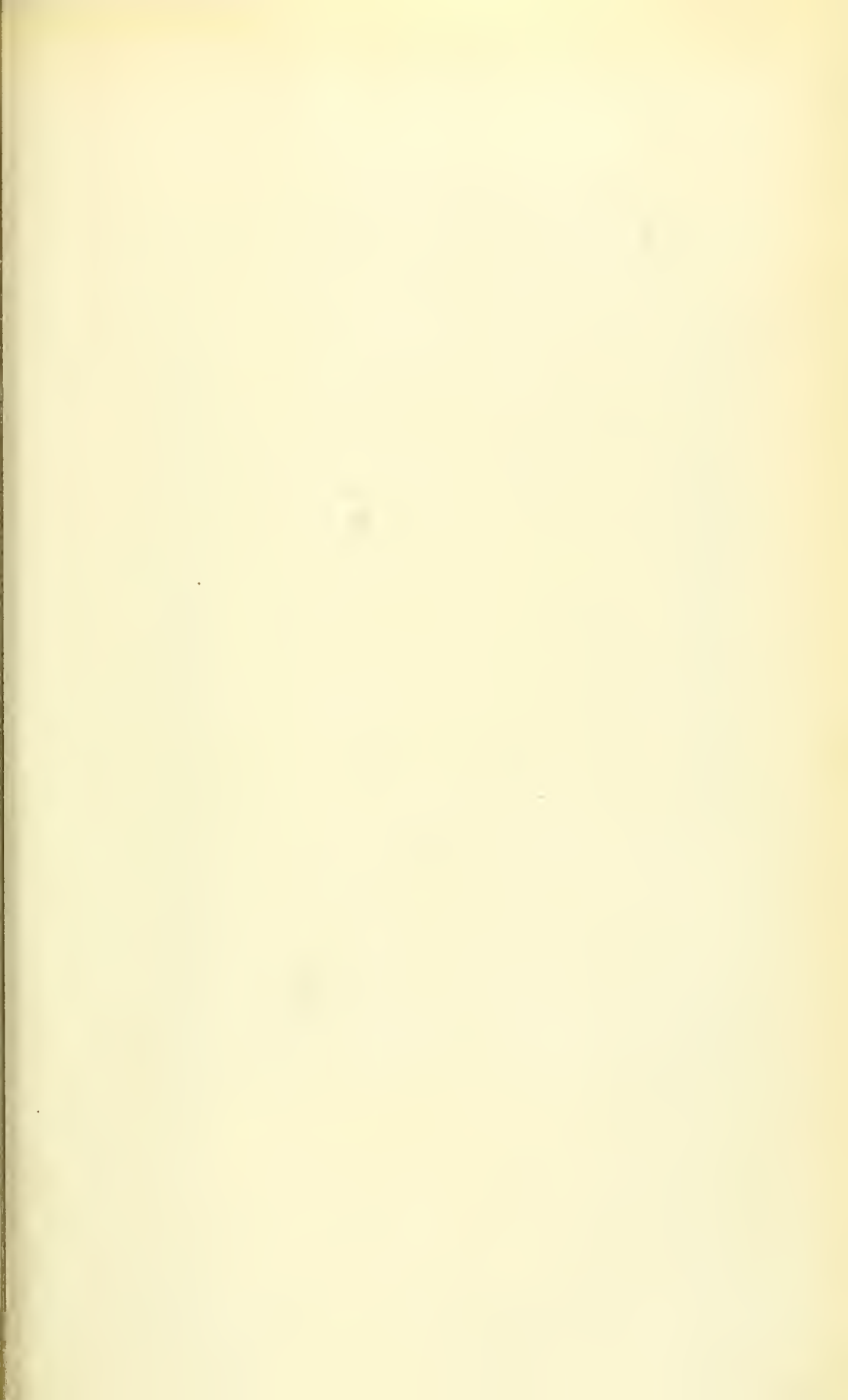
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"MR. MICAWBER"
(Gum Print)
By NANCY FORD CONES

CAMERA



CRAFT

A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief
CLAUS SPRECKELS BLDG.

SAN FRANCISCO

EDGAR FELLOES,
Associate Editor
CALIFORNIA

VOL. XXVIII

SEPTEMBER, 1921

No. 9

II. The Gum Process in Portraiture

By Professor Daniel Cook

(University of Cincinnati)



With Illustrations by Nancy Ford Cones

Of the many photographic printing processes there is perhaps none so little understood and so little used as the Gum-Bichromate process.

From an artistic point of view, the results produced by this process far excel any other. That Gum prints are desirable is proved by the fact that a well-known photo supply manufacturing company has recommended making imitation gum prints. "Imitation is the sincerest flattery." But as Whistler, the artist, said, "Why imitate?" Imitations are always a poor excuse and fall as far below the level of the real in gum prints as in diamonds.

To the average photographer, a gum print is almost unknown. Many have never seen one, and few understand the process. Recently a Cincinnati photographer, in viewing some of the Cones pictures, remarked, "They are fine, but the people do not want them." Ah! perhaps they would want them, were they to see them.

But the way to produce a gum print is fraught with many difficulties. The process is simple, but the pitfalls are many. Two world-renowned photographers tried for months to master the process, but finally came to the conclusion, and so expressed themselves, that satisfactory gum prints could not be made.

The prints made by both Mr. and Mrs. Cones, prove that the gum process lends itself to finer artistic qualities, greater definition, and more indi-

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viduality than does any other process. Perhaps a special temperament is required, but at any rate, the utmost care, perseverance, and a great love for the work are absolutely necessary.

It is a pleasure for me to speak of the interesting way in which Mr. and Mrs. Cones work. One soon sees that with them it is a labor of love.



"IN DAYS OF OLD
WHEN KNIGHTS WERE BOLD"

Mrs. Cones is always on the alert for new and interesting subjects, which she has a great faculty for discovering. Mr. Cones is more interested in producing artistic prints from the character studies which his wife is constantly making. They work hand in hand, each encouraging and criticising the other without reserve. When I asked Mr. Cones how he had brought

II. THE GUM PROCESS IN PORTRAITURE

the gum process to such perfection, he answered in his characteristic good-natured way, "I had a good helper, and a most severe critic, who kept after me, insisting that we must have more definition, and there was nothing for me to do until I got it."



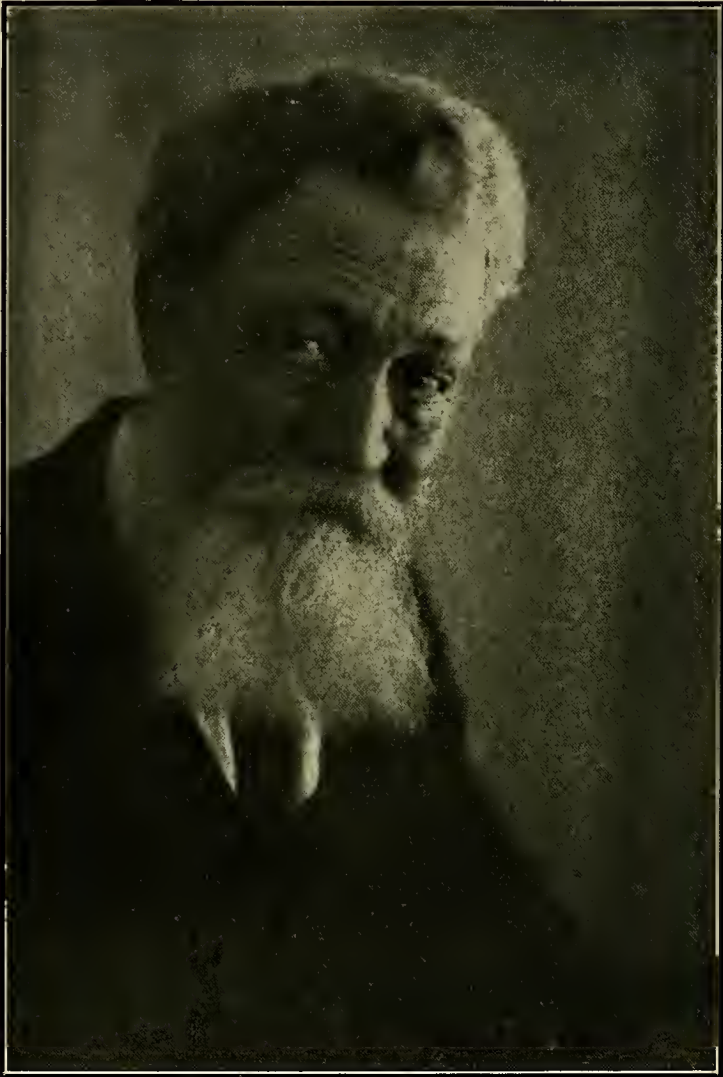
THE PURSE WITH SCANTY LINING

Following are the methods as given me by Mr. and Mrs. Cones:

The first step is to select a paper that has body enough to remain on the surface of the solutions. A paper that becomes saturated and sinks to the bottom of the tray is very difficult to handle, but the heavy grade of Whatman, and some of the imported papers, particularly the French charcoal, are very satisfactory. The next step is to prepare a solution of gum

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arabic, 1 oz. to 3 ozs. of cold water, by placing in a muslin bag and suspending in a wide-mouth jar so that the gum will be partly submerged. This solution will require about 30 hours to dissolve, and will be about the consistency of strained honey.



OLD, BUT ALERT

Next, a saturated solution of bichromate potassium is made, and is kept in a dark-colored bottle, as this solution is sensitive to light. The paper is soaked in this solution until thoroughly limp, and then is hung up to dry in a dark room. For the pigment, any dry color will do for a trial, black being

II. THE GUM PROCESS IN PORTRAITURE

easiest to work. If moist water color is used, one should be sure that it has no oil, such as glycerine. Pigment is now gradually worked into the gum solution with a spatula until the proper amount of color is obtained. This will be the depth of the darkest shadows, a very interesting point.

A smooth board is next padded with several thicknesses of newspaper, a sheet of the sensitized paper is pinned on it, and with a bristle brush—about two inches is a good size—the color is quickly painted on the paper. One should try to cover the surface evenly at the first application, so that there will be no overlapping streaks, then one should immediately blend each way with a badger blender. When dry, the sheet is ready to print.

About the same exposure in bright sunlight is needed as would be required to print solio proof deep. In a tray with plenty of cold water, it is better to have it two or three inches deep, the exposed sheet is floated face down on the water, and as the bichromate dissolves out, the print is lifted carefully by one corner and allowed to drain for a few seconds so it will not cause stain. If the print has been properly timed, the outline should appear quite distinctly in about five or ten minutes. The paper should be left in the water until the image is fully developed. The time is usually from fifteen minutes to half hour, although it is not absolutely necessary for the print to develop in so short a time. If it is over-exposed, the development can extend into hours and still make a good print, though of different quality. When dry, the print is more permanent than can be obtained by any other process.

The chief mistake with beginners is usually in coating the paper too heavily. In working with gum prints, one is more and more surprised at the small amount of pigment required to make a strong print. By practice one will be able to coat the paper to suit the negative. A very thin coating is required for a contrasty negative, while a flat, thin negative must have a heavier coating which will make a better balanced print. That prints of the finest definition can be made by the gum process is demonstrated by the accompanying illustrations.

The first article on "The Gum Process in Portraiture" appeared in the July issue of Camera Craft.



OUR WILD FLOWERS

Kindly Contributed by Our Readers

X. THE CALIFORNIA POPPY

This, the California State Flower, symbolizes in a striking manner "The Golden State."

The rich gold colored blossoms, carpet the fields and hillsides in early spring and can be found growing in occasional clusters most of the year around. Its favorite haunt is the open country. Reveling in sunshine, the blossom closes near the end of the afternoon and does not unfold its tightly rolled petals until the following morning is well advanced. An interesting feature is the bud. The flower completely forming inside of a

long conical cap which is split and cast off when the blossom first opens.

The California Indians wove many legends about this flower, used some parts of the plant for food and other portions medicinally.

The early Spanish settlers gave the most appropriate names of all, among them "Dormidera," meaning (The sleepy one) and the most beautiful, "Copa de Oro" (cup of gold).

Growing close to the ground its color and pliability make it a rather difficult subject to photograph, however patience, full light, good grouping and careful attention to color values will help one to make a study which, when finally successful amply repays for all time spent.

—A. E. Davies.



Pictures for Profit

By Harry E. Carpenter



With Illustrations by the Author

After reading Mr. Frank Odell's account, "Pictures, Pastime and Profit," in *Camera Craft* for June, I felt I should like to do something to help the good work along. Let me tell you how my old friend camera gets his eagle eye on some of the dollar bills still in circulation.

To begin with, I am a member of the I. P. A. Exchange and at present have sixty-three names on my list, which means, I have to make a considerable number of prints to keep them all going, as I receive between ten and twenty letters each week.



GATHERING FLOWERS FOR MOTHER

CAMERA CRAFT

Bridgeport, Looking East



The Stevenson Dam



Another View of the Dam

Bridgeport, Looking North

We have several good beaches here at Bridgeport, so I picked out the best one and went down there with my old 4x5 Hawkeye, which by the way, I would not exchange for the best camera there is made.

At the beach I got some of the "mermaids" to pose for me, with the promise that I would give them a print when I had them finished. The following Sunday I was down there again and kept my promise to those young ladies by giving them a print, and these proved so satisfactory to the recipients that I received orders from half a dozen to two dozen to be made up. By this means a sort of reputation grew, for these patrons recommended their friends and today it seems when I go down to the beach, I know everyone there; this makes business. I have always been very particular to keep my promise to these people, if they are to have a picture or two in return for posing, they will surely receive them. That is how I built up this little business; having won their confidence the rest was easy.

Last summer one of our local newspapers ran a picture contest for eight weeks, a different subject each week, three weekly prizes and the grand prize at the end of the contest.

PICTURES FOR PROFIT

Ready to go



A Living Kewpie

Connecticut Mermaids

"I See You!"

Being an enthusiastic photographer, I naturally desired to know just how I would stand in a competition. As you are my friend, I don't mind whispering that I received 1st, 2nd or 3rd prize in seven of the eight weeks the contest ran, and to wind up I won the 2nd grand prize of \$20.00 at the end of the event.

Besides mermaids, another of my specialties are children's pictures. I have two of my own to photograph, they keep me in practice. It is just business; I make it a point to show these pictures to the fond parents in my neighborhood and the result invariably is, "Now won't you come over some pleasant day and take the baby's picture?" My reply, "Sure, I will, and I'll let you know beforehand when I am coming and you can have the little one ready." And do you know, I had no idea there were so many kiddies in Bridgeport.

Another practice of mine is get on top of the highest buildings in the city, and take birds-eye views in different directions. One of our local papers published every picture I took in their Sunday edition and gave me \$1.00 per picture.

Last summer one of the staff of the N. Y. Herald came up here to get a write-up for a Sunday edition, the writer needed views of the city to illustrate his article. I gave him eight of my birds-eye views and a \$17.00 check was the result. My photographs have also appeared in the Times Mid Week Pictorial, for which they pay \$2.50 each.

A large new dam has just been finished near here at Stevenson. My "chum" and I took a hike up there when this dam was started, we made a

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second visit when it was about half finished and on the completion of this monster structure I was around there again. On my three trips I had climbed all over the place, making many photographs of the dam from various positions, I had a valuable collection—did I sell them?—Tell the world I did.

Pictures of street scenes I find profitable, fires, accidents and such things. I have a small $2\frac{1}{4} \times 3\frac{1}{4}$ Kodak which I always carry on my hip, ready for such emergencies. But the main thought I always have in mind is, to keep my camera loaded.



DESIDERATUM

By Sigismund Blumann

Poets have words, and Singers songs,
The Painter's palette is full color rich.
What shall the wight who greatly longs
To voice his soul do with the likes o' sich
When he can neither rhyme nor sing
Nor do with brush a single thing?

While gifted spirits woo their Muse,
On wings of Inspiration fly,
Even the likes o' me enthuse
Some beauty, too, to life infuse.
So I shall dare—at least to try
For the Olympian crest
Upon whose breast
The flames divine
Forever shine.
I'll strive, and strive,
And some day arrive,
My Camera, and I.

A Cure for Black Shadows

By W. H. Emmet



With Illustrations by the Author

[Note:—The following contribution from W. H. Emmet will be of great interest to a number of our readers. The simple and very effective method employed by Mr. Emmet to overcome "black shadows," which are only too common in bright sunlight views is worth remembering.

Many amateurs will find among their stock of negatives some which fail in this respect. If the lights in the negative are not too dense, they should experiment along the lines recommended, it will be good practice and when sufficient dexterity has been acquired there will be pleasure in the knowledge gained.

Mr. Emmet was the writer of that article, "Wild Game in Yellowstone," which appeared in the August number of *Camera Craft*.—E.F.]

The two photographs which accompany this article were taken with a 3A Kodak, Carl Zeiss lens and Multi-speed shutter. The day was very bright and the shadows black.

Now they tell us, (by they I mean those fellows who know everything), they tell us, to expose for the shadows and let the lights take care of themselves. I don't agree to that, because the high lights would be so



An example of the great improvement shown by staining the foreground shadow in the negative.

CAMERA CRAFT



Had the shadow not been treated it would have destroyed the sense of distance in the picture.

much over exposed they never could be reduced properly. I expose sufficiently to get some detail in the shadow, then I use the Japanese Transparent Water Colors, (orange) and color the thin parts of the negative on the film side, the same as I would tint a photo, and the negative will print beautifully on a soft working paper, such as P. Cyko and Haloid P. S., the water color may be removed by soaking the negative in cold water. This method can also be adopted if we find the color has been applied too strongly, simply soak the film for a shorter period of time.

If, on the other hand, one has recourse to intensification instead of water color, there is danger of blocking out what little detail there is in the negative. Transparent water color will not block up anything, only hold back the printing. The blackest nigger may be made to look white and yet have detail show in his face by this means.

The two photographs here shown will demonstrate what kind of prints may be secured from contrasty negatives if the thin portions are worked over with these water colors.

The day returns and brings us the petty rounds of irritating concerns and duties. Help us to play the man; help us to perform them with laughter and kind faces; let cheerfulness abound with industry. Give us to go blithely on our business all this day, bring us to our resting beds weary and content and undishonored, and grant us in the end the gift of sleep. Amen.—Robert Louis Stevenson.

Printing Lantern Slides

By Rollo J. Fisher



With Illustrations by the Author

I use a great many lantern slides in the course of a year. From the very beginning of my experience with the stereopticon the rental method of obtaining slides proved unsatisfactory in so many ways that I determined to make as many of my own slides as possible. A little calculation demonstrated that after I had paid the rent, express charges both ways, and breakage, the expense for one use sometimes amounted to as much as eight cents for each slide. When I began using the stereopticon the materials entering into a lantern slide did not cost more than this. After a second use of these same slides, which sometimes occurred, of course I paid the eight cents over again.

So I set to work to make such of my own slides as I could. After using all of the first purchase—five dozen plates—to the very best of my ability, I had, when the emulsions had been removed, five dozen most excellent cover-glasses, which have since come in very convenient. I complained to the makers of the plates, thinking the trouble must be in the plates, and sent, at the same time, complete and accurate data covering all the factors and processes involved, and also included the best lantern slide I was able to make, together with the negative from which it was made, and asked for a criticism. In due time a reply came: "We use in our work a Cooper-Hewitt light and expose for about ten seconds for a normal negative." The



Sage Brush

Horse Barns—Acoma Indians

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information contained nothing regarding the distance from the light at which the printing was done, nor one word as to the intensity of the light used: so I was as helpless as before. I appealed to another manufacturer and, following the directions sent me, my first attempt resulted in a slide, the excellence of which, exceeded my fondest hopes. I was elated: but my subsequent efforts were rewarded with a great variety of results; due to my inability to estimate correctly the length of exposure necessary.

I never did secure uniform results until I began to print my slides from a memorandum; which method, when all factors remain the same, does give absolutely uniform results. The method is as follows: I first make prints on paper from the negatives from which I intend to make lantern slides, being careful to make an accurate memorandum of each exposure. This memorandum records the following factors: intensity of printing light; distance from light source to negative; printing paper, with the degree of contrast; and length of exposure. With the exception of this last factor, the others always remain the same. This method, it will readily be seen, gives me accurate knowledge of the relative density of all my negatives.

With this information at hand, the printing of lantern slides is very easily accomplished. For illustration, let us select a negative at random. Of this one the record says under "standard conditions" eighty seconds will be required to make a print on paper from it. "Standard conditions" should be explained. It is, of course, only an arbitrary term I have adopted for use in my own dark-room, and signifies a certain combination of factors which is always constant regardless of the negative I am using. In other dark-rooms a very different combination might just as well be adopted. My "standard conditions" are as follows: a negative placed eighteen inches from the center of a 250 Watt nitrogen bulb when printing on Azo Hard X Grade E paper. Then it is also necessary to establish "standard conditions" for printing the lantern slide. Mine are: a Hammer White Label plate placed forty inches from the center of a 15 Watt bulb (not nitrogen). To return to the negative now. It requires for printing on paper, under standard conditions, eighty seconds. By experiment it was determined that a negative would require five-sixteenths as long an exposure to print a lantern slide under standard conditions as it did to print paper under standard conditions. Five-sixteenths of eighty seconds is twenty-five seconds, the proper exposure under above conditions. In the case of very dense negatives, adjustments which permit shorter exposures are usually made. Here is a negative that requires five hundred and twelve seconds to print on paper, or, for the lantern slide, one hundred and sixty seconds. This is a longer time than one needs to wait, so I move my printing frame up to within twenty inches of the center of the light source and give an exposure of forty seconds, or one-fourth as long. If forty seconds seems too long a time to wait I move the printing frame to within ten inches of the light source and expose for ten seconds. This, it will be observed, takes advantage of the law of illumination, which says the intensity of illumination varies inversely as the square of the distance from the light source.

PRINTING LANTERN SLIDES



Pond Life

A Sheep Settles Argument

When reducing or enlarging negatives, or portions of negatives, to lantern slide size, the same general methods hold good. The printing is of course done by the projection method. When the light used in projection reaches the sensitive emulsion it is usually less intense than when printing by contact. For this reason I use a fast paper for making my exposure records. Because of its greater speed enlarging paper is good for this. Now as before, the factors in one's standard conditions should be the same for all the negatives. Here my 5x7 camera is brought into play. I prefer to project the image upon a sensitive surface held in place in the regular plateholder of my camera, than to project it upon a sensitive surface held in place upon an easel, because the inside of the camera is absolutely light tight, and thus all danger of fogging from stray light rays is effectually removed. Then too, the plateholder is always perpendicular to the optical axis of the lens. In case one has only a roll film camera an easel will usually be inevitable. Then extreme care must be exercised to shut off all light rays.

In my 5x7 plateholder I use an inside kit which takes plates of lantern slide size. One of these kits will be found sufficient, as one removes and develops the paper or slide plate as soon as it is exposed. Paper is now cut to $3\frac{1}{4} \times 4$ inches and placed in a light tight box where it remains until used. Any home made illuminating apparatus may be used. Mine consists of just a common box in which is placed one or more electric light bulbs, according to the amount of light desired. In one side of this box a hole is cut just large enough to receive the largest negative I expect to use. Between the negative and the light source a ground glass or other diffusing medium, larger than the negative, is placed to make the illumination of the negative uniform over its entire area. Now, load the plateholder in the ordinary way except that instead of using a glass negative, put in a sheet of the $3\frac{1}{4} \times 4$ paper previously cut. If the paper curls, as it is likely to do, it may be held sufficiently flat by placing a piece of cardboard or a spoiled lantern slide plate in the plateholder and under the paper. Also attach strips of gummed paper across the corners of the opening under which the corners

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of the sensitive paper may be slipped. After placing the sensitive paper in the plateholder, close the opening with the dark slide to protect it from being fogged. Now focus the image of the negative on the ground glass of the camera in the regular way, being careful to have the camera at the proper distance to give an image the exact size you want it to be on the lantern slide. This focusing may be much more easily done if the largest aperture of the lens is used. This is so because of the increased illumination obtained. Then too, because the depth of focus of the large aperture is less than that of a smaller aperture your focus will be more exact. When the lens has been focused, close the shutter and insert the plateholder. Withdraw the dark slide and expose the paper by opening and closing the shutter in the usual manner. For making these test exposures on paper I use the lens without stopping down because of the time saved in making the exposure. How long this sheet of paper should be exposed will be pure guess-work, but continue making exposures until you get one of the correct length to give a print full of brilliancy and snap. This may be accomplished in three or four exposures, or it may take a dozen, depending on how good a guesser you are on the first two or three. After obtaining a satisfactory print from this first negative you will have some knowledge of the speed of the paper you are using, and will arrive at the proper exposure for each of the other negatives much more quickly.

Now for the record of this exposure. Let it contain the following items: Intensity of illumination; paper used, with the degree of contrast; lens used; length of exposure; distance from the negative; and lens stop. Since the first three should be constant with all the negatives, they may be considered as one's "standard." One may also include in his "standard conditions" "lens stop," if he wishes. The other two, then, "distance from negative" and "length of exposure" will, of course, vary with each negative. I make "distance from negative" mean the distance between the negative and the front of the lens mounting. It becomes easy when printing to place the lens at the proper distance and focus from the back of the camera without disturbing the position of the lens. But in case one is using a camera which focuses from the front only, it would be much more convenient to make "distance from negative" refer to the distance from the negative to some part of the camera which does not move when focusing is being done; say the front side of the plateholder.

The comparative speed of the lantern slide and the paper should now be determined. Select a negative from which you were able to print easily and well when making the test exposures, and put it in place in front of the light. Now place the camera the distance from the negative which your record of this negative calls for and focus the image on the ground glass. Be sure the center of the image is placed on the exact center of the ground glass, otherwise it will not be centered on the lantern slide plate. Insert the plateholder containing a lantern slide plate instead of a piece of paper and expose after withdrawing the dark slide. Always take care not to

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move the camera when inserting the plateholder or withdrawing the dark slide. When you have determined the exposure necessary to give a snappy, brilliant lantern slide, your troubles are at an end. Let us suppose ten seconds is required by any given negative under standard conditions for paper. When reproducing all of the constant factors in using a lantern slide the necessary exposure may be but five seconds. You will then know that the lantern slides you are using are just twice as fast as the test paper, and that a slide may be made from any negative with one-half as long an exposure as the paper requires.

But the sharper the definition on the lantern slide the better projection results you will get. So, my custom is to stop my lens down to the smallest stop when printing lantern slides, and give the proportionately longer exposure. For illustration, suppose any given slide prints in five seconds at a lens stop of f-8. If, then, the lens be stopped down to f-32 the time required will be eighty seconds. The improved definition secured makes it well worth while to wait on the longer exposure. This is especially important in case you are not using an anastigmat lens.

These may seem like slow methods to some, but unless you make a great many lantern slides right along or, are an expert, you will find these methods will abundantly repay you for the time required, and in the end will save much material, for you should have practically no failures if the intensity of your light remains constant. Then, after all, in practice these methods will not prove to be nearly as long as at first they seem.

Additional comments on technique are unnecessary, for I have had constantly in mind the amateur who is, as I was, already familiar with the processes for making prints on paper. This accounts for the absence of any mention of many steps in the printing with which every such worker is already sufficiently familiar. Film negatives may be kept in place in front of the light by being placed between two printing frame glasses. Should there be a tendency for the film to slip out of position it may be held in its place by attaching it to one of the pieces of glass by means of a strip of gummed paper. I use the developer recommended by the maker of the particular plate I am using. It is my custom to remove the plate from the developing solution just before the image has reached the required density and allow development to be completed out of the solution. Development proceeds slower this way and is therefore easier to watch. Then, too, I think a print looks more natural out of a solution than in it: so, for me, it is easier to judge when development is complete if the plate is out of the solution. An excellent indication that development has proceeded far enough is the appearance of a very pronounced brilliancy or "snap" in the image, and, when this takes place, if the exposure has been correctly timed, the further progress of development will virtually cease. In the dark room I always use a ruby lamp as lantern slide plates are much more sensitive than ordinary printing papers. In my memoranda all exposures are recorded in seconds. This saves reducing minutes to seconds before calculating the exposure to be given any particular negative.

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A PHOTOGRAPHIC MONTHLY

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The Passing of Henry H. Turner

It is with deep regret we publish the following communication from the Gundlach-Manhattan Optical Co.:

We have had the misfortune to lose, after a brief illness of three days, Mr. Henry H. Turner, the President of this Company since it was established in 1884. His death occurred August 24th, 1921.

Mr. Turner was born in Port Jervis, N. Y., February 2, 1856. His parents were John and Eliza McGown Turner, natives of Scotland, who came to this country as children and were married in New York in 1846. They removed to Rochester in 1862 where Mr. Turner received his education in the public schools and learned the machinist's trade. He was then employed in the grocery business for nine years after which he entered the employ of Sargent & Greenleaf. In 1884, with John C. Reich and John Zellweger, he established the Gundlach Optical Co., which some years later merged with the Manhattan Optical Co., to form the Gundlach-Manhattan Optical Co..

The first products were microscopes and accessories and these were followed by photographic lenses, cameras, prism binoculars and a more general line of photographic and optical goods.

Mr. Turner was well known to the trade through his long connection with this business and his many trips to all parts of the country. He was a member of several organizations, including the Chamber of Commerce, Rochester Club and Old Colony Club, and was greatly respected as a good citizen of Rochester.

Henry H. Turner was a man of genial temperament, always good natured and fair minded, a man respected by his competitors and who will be greatly missed by his business associates.

Camera Craft tenders its sincerest sympathy to the relatives of the deceased and to members of this Company over the loss they have sustained.

The New Vice-President

Lewis B. Jones has been made vice-president in charge of the sales policy and advertising of the Eastman Kodak Company, Rochester, New York. Mr. Jones has been advertising manager and a member of the board of directors.

EDITORIAL

Get a Tripod!

Tripods are now made as light as it is possible to fashion them, and we wonder what the average amateur is waiting for before he elects to make a light tripod a part of his photographic outfit.

We have before advocated the use of a tripod, and we are still harping on the old string. We are not in the tripod business, but we certainly would like to see more tripods in use. We practice what we preach, this we understand is the proper thing to do. Our own tripod is a light wooden one, it cost little and serves its purpose well. On a day's outing with our little hand camera we would not dream of leaving the tripod at home, we wish to be prepared for any emergency. We do not always use the tripod, we never do if the light is satisfactory, but if we find a little bit hid away among the trees, rather than have an undertimed picture and a spoilt film, we have recourse to the tripod. Then again, in the evening on the way home what pictures have been lost because a time exposure was necessary and there was no support for the camera.

In the recent general holiday, we made our first trip to Muir Woods, through sheer habit the tripod was taken with the camera and we had every reason to be glad we did so. We were impressed by the grandeur of the trees, the subdued light and the hush of the place, when nature was given a chance.

There were many holiday makers there, for the day was a perfect one, and there were many cameras too. Yes, the cameras were aplenty but not one tripod did we see except ours, and this is not written boastfully but with regret.

One photographer there had a group of friends seated at the foot of a giant redwood, they all desired the picture and he was evidently experienced enough to realize that was no place for a snap-shot and he glanced around for an accommodating stump to rest his camera upon. We happened along at that moment and offered our tripod, it was eagerly accepted and we were glad to be of use. We do not know the result of the exposure, of course, but it would probably be satisfactory. The exposure given was rather a long one, we thought, it was ten seconds by his watch, we did not know what stop was used. However, there was a vast difference between ten seconds and a snapshot.

When we began making our exposures we gave five seconds, stop F.8, and later these films were developed in a tank with pyro soda. The time was right and the negatives were good, but we believe they would have been a little better had we reduced the amount of alkali.

On that enjoyable day there were a great number of snap-shots made among these old trees and the owners of the little box cameras worked as hard as any of us, but there was disappointment in store for all, under those conditions, and why? Simply because they had no tripods or a convenient way of giving time exposures.—E. F.

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

The following report by A. & L. Lumiere and A. Seyewetz in the British Journal of Photography is the most exhaustive and fundamental yet published. I would call especial attention to the statement that a 2% of Potassium Chromate acts uniformly as a desensitizer for all the rays of the spectrum reducing the sensitiveness to about 1/40th. As neutral Potassium Chromate is a common and inexpensive chemical, easily washed out, its utility is open to experiment by all and any. I will report my own experiences later.

—H. D'A. P.

Experiments on Desensitisers

The discovery made by Lüppo Cramer of the remarkable desensitising action of the azo dye known as phenosafranine, and also of other dyes of the same class on ordinary and panchromatic plates, without affecting the latent image, has prompted us to study the possible relation between the desensitising property of the substance and its chemical constitution. The questions which we have endeavored to answer are the following:

(1) Are the properties of phenosafranine common to all the substances derived from the phenazine group of safranine, or are these properties exhibited only by substances which are derived from this group by the substitution of radicles analogous to those which give rise to phenosafranine?

(2) Are the compounds containing the phenazine group the only organic substances having this desensitising property, or is the latter to be found among other colored organic bodies or mineral compounds? Do desensitising substances act equally on ordinary and panchromatic plates?

(3) Is the desensitising quality a chemical, physical or physico-chemical one?

(4) Selection of desensitisers according

to the purpose for which they are to be used.

Turning now to these four aspects of the subject, phenosafranine is a red dye belonging to the azo class, the phenazine group in which may be considered as derived from the substance, quinone di-imide.

It may be assumed that phenazine is produced by the action of quinone di-imide on pyrocatechin according to the following equation:

The introduction of two NH₂ groups yields a eurodine, and the further attachment of a phenyl group to the azo nitrogen of the eurodine gives rise to a safranine.

Phenosafranine is produced directly by oxidising a mixture of 1 molecule of para-phenylene-diamine and 2 molecules of aniline. This oxidation occurs in two stages, an indamine being first formed:

There is, therefore, an interest in studying the desensitising properties of the various intermediate compounds which precede the formation of phenosafranine.

Desensitising Ordinary Plates

The following method was used in studying the desensitising of ordinary plates:

Plates of ultra speed (Lumière Violet Label) were placed in the dark for 2 minutes in a solution of the dye, ranging, according to the particular substances, from 1:100 to 1:2,000. Successive tests were made in order to find the minimum strength of dye solution which could be used for the production of the maximum desensitising effect.

The plates were all exposed under identical conditions in the Chapman-Jones plate tester, and, on removal from the desensitising solution, were developed at a distance of 1.5 metres from a candle, the light of which was reflected vertically on to the developing dish so as to illuminate the plate uniformly from above.

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A normal diamidophenol developer was used for 4 minutes at a temperature from 60 to 64 deg. F., the plate being examined twice by transmitted light, first after 2 minutes and then after 3½ minutes.

When the images thus developed showed only a slight fog, spectroscopic tests on panchromatic plates, developing in a bright yellow light, were made as described in a later portion of the present paper.

Among the substances already mentioned, aqueous solution of paraphenylenediamine exerts a very slight desensitising action; the other substances, with the exception of toluylene red, are without action. Toluylene red (neutral red) gives results closely comparable with those of phenosafranine.

This dye is made by boiling in contact with the air the unstable indamine dye, toluylene blue, which results from the action of di-methyl - para - phenylene - diamine on meta-toluylene-diamine.

It thus appears necessary that the following two conditions should be fulfilled:

(1) Presence of the phenazine group.

(2) Substitution of amido groups in the benzene nucleus.

Nevertheless, although these two conditions appear to be fulfilled in the case of neutral violet (which contains a CH₃ group less than neutral red), this dye does not possess the properties of neutral red. Possibly it has not the constitution which is commonly attributed to it.

Neutral red is a brownish-red dye of low brilliancy which has a feeble staining action on gelatine and washes out more easily than safranine. At the same time it enters into the gelatine film more slowly, so that it is necessary to bathe the plate for about 4 minutes in a 1 per thousand solution in order to impregnate the film with the solution.

Action of Different Safranines

We have compared the desensitising properties of a considerable number of safranine dyes with those of phenosafranine. Some of the dyes which we have used are commercially obtainable; others have been prepared.

The results obtained with dimethyl, tetramethyl and tetracthyl phenosafranine

and with safranone and safranil have already been pointed out by Lüppo-Cramer and König ("Photographisch Rundschau," 1921, p. 37).

In the foregoing table it is seen that the dyes of the safranine class which possess desensitising properties comparable with those of phenosafranine are:

Dimethyl-phenosafranine.

Tetra-methyl-safranine.

Tolusafranine (ordinary safranine).

Methyl-tolu-safranine (Safranine MN).

Dimethyl-benzoxilyl-safranine (Giroflé)

Tetra-ethyl-phenosafranine (Amethyst violet).

Cresosafranine.

Naphthophenosafranine.

Ethyl - dimethyl - etho - safranine (Fast neutral violet D).

None of the above possess any appreciable advantage in practical use over phenosafranine, with the exception of cresosafranine, which is distinctly more easy to wash out of the gelatine film than phenosafranine.

It will be noticed that safranines which have lost their anamino group, *e. g.*, the aposafranines, and those, *e. g.*, safranones, in which this group is replaced by oxygen, have the desensitising property much less marked. If the two amino groups are replaced by O and OH, as in safranil, the property is altogether destroyed.

Replacement of this NH₂ group by acetyl, its conversion into the diazo group or the formation of a diazo compound with a phenol, as in indoine blue R, destroys the desensitising property of the original phenosafranine. On the other hand, the substitution of a C₆H₅ group (attached to the azo nitrogen) by C₂H₅, as in fast neutral violet D, has no effect on this property.

Desensitising Action of Indulines

The indulines are dyes closely analogous to the safranines. They may be regarded as aposafranine in which one or more hydrogen atoms of the benzene ring are replaced by the aniline residue, NHC₆H₅.

The desensitising action was tested of the following indulines, chosen among those which include 1, 2, or 3 aniline residues substituted in the benzene rings and having methyl or ethyl groups in the

amido groups:—Fast blue 3R, soluble induline B, paraphenylene blue R, meta-phenylene blue 2B, azine green, azine green S, Bale blue R, Milling blue, and Coupler blue.

The color of the solutions ranged from violet blue to greenish blue, but none of these dyes showed any desensitising action.

Thiazines, Thiazones, Oxazines and Oxazones

The thiazines and thiazones, as also the oxazines and oxazones, are regarded as derivatives of quinone imide. These dyes have a constitution approximating to that of the safranines, or rather the eurodines, one of the phenazine nitrogens being replaced—by sulphur in the thiazines and thiazones, and by oxygen in the oxazines and oxazones.

We have examined the action of the following dyes exhibiting substitution of various kinds and of color ranging between blue and violet:

Thiazines.—Gentian violet; methylene blue; thiocarmine R; toluidine blue.

Oxazines and Oxazones.—Capri blue; gallocyanine; Prune O; Meldola blue; Nile blue 2B; fluorescent blue.

None of these substances showed desensitising properties approaching those of phenosafranine.

These different classes of dye, although derived, as is phenosafranine, from quinone imide, thus appear to be destitute of useful desensitising action.

The desensitising action of chrysoidine has been pointed out by König and Lüppo-Cramer, who, however, have not stated if this dye produces chromatic desensitising comparable to that of safranine.

In short, there appears to be no well defined relation between the constitution of the dyes and their desensitising properties, since among the derivatives of quinone imide, only the safranines and one eurodine possess this property, whilst among very different dyes there are found isolated desensitisers, such as aurantia in the nitro derivatives, and chrysoidine among the azo dyes, the constitution of which is not closely related to that of the safranines. In the case of chrysoidine, if there are two NH₂ groups, these latter are in

the meta position relatively to each other, and are not susceptible of yielding by oxidation in the air a quinone imide as they would if in the para or ortho position.

It is of interest to compare these results with those obtained in respect to color sensitisers. As is well known, there are two classes of dyes, the cyanines and the phthalins, most of the members of which are color sensitisers, whilst, on the other hand, there are isolated examples of other classes of dyes, *e. g.*, rosaniline and azo dyes, which possess this property.

Non-Colored Organic Compounds

We have examined a great many organic compounds of very different properties, both oxidising and reducing substances. None of the oxidising substances, among which is quinone (the starting point of the safranines), appeared to possess any desensitising action.

Organic compounds having reducing properties are limited to developing substances containing amino groups, and their desensitising properties have been pointed out by Lüppo-Cramer in the case of diamidophenol, diamido-resorcin, triamidophenol, triamido-benzene, triamido-toluene, and paraphenylene-diamine. We have studied the action of other nitrogen organic substances, and particularly a large number of alkaloids. Only one of these has been found to exhibit desensitising properties comparable with those of diamidophenol hydrochloride. This is *apomorphine hydrochloride*, which is regarded as a product of the dehydration of morphine.

The solution, which has oxidised in the air and become of blue color, is more active than that freshly prepared.

Desensitising Action of Mineral Substances

Among the most varied mineral substances, both reducers and oxidisers, which we have examined, none appears possessed of desensitising properties of special interest.

Many oxidising substances, such as copper salt, alkaline bichromates, chlorine and bromine water and iodine solution, greatly reduce the sensitiveness of unexposed gelatine emulsion, but equally attack the latent image, and, therefore, are useless in practice.

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Neutral chromates, and especially neutral potassium chromate in 2 per cent solution, are the only mineral substances which we have found of any value as desensitisers. Their action is somewhat less than that of diamidophenol, but they have the advantage of giving stable solutions.

Desensitising of Color-Sensitive Plates

The experiments already described were all made with ultra-rapid ordinary plates (Lumière Violet Label), and the results therefore relate chiefly to the reduction of sensitiveness to blue and violet rays. We have also examined the most active of the desensitisers in respect to their behavior with panchromatic plates in comparison with safranin, which, as has been shown by Lüppo-Cramer, desensitises emulsion for all parts of the spectrum.

For this purpose we used panchromatic plates (Lumière Chroma VR plates), the color-sensitiveness of which extends a little beyond 700.

These plates were exposed in the spectroscopic camera and then immersed, in the dark, for one minute in the following desensitising solutions:

Phenosafranin, 1:2,000 solution; also in the other safranines mentioned above as giving results comparable with phenosafranin.

Toluylene red, 1:1,000 solution; immersion for 4 minutes.

Aurantia (ammonium salt), 1:1,000 solution.

Picric acid, 1 per cent solution.

Indian yellow, 2 per 1,000 solution.

Crysoidine, 1:2,000 solution.

Diamidophenol, 1 per cent solution.

Apomorphine hydrochloride, 1 per 1,000 solution.

Neutral potass chromate, 2 per cent solution.

After immersion in the desensitiser these plates were developed for 1½ minutes in the dark with normal diamidophenol developer, and then for 2 at a distance of from 4 feet to 18 inches from a 16 c. p. incandescent bulb screened with tartrazine paper and yielding a very bright light. During this development plates were examined four times (for 3 seconds each time) by transmitted light.

Under these conditions the plates treated with the various safranines already mentioned, and also those treated with toluylene and aurantia (ammonium salt), gave images having only very slight fog, whilst all the others were strongly fogged.

If this intense light-source be replaced by weaker illumination, *e. g.*, by a small Pigeon lamp, with the maximum height of flame adjusted so that the lamp does not smoke, and with a bright yellow screen round the lamp (without taking any precaution to prevent escape of diffused white light above the screen), by developing under the same conditions as already mentioned and at a distance of 0.50 metres from the light-source, the results are the same as those already described. *Only the safranines, toluylene red and aurantia* gave images which were not fogged. None of the other substances could be employed for desensitising panchromatic plates.

Toluylene red acts on the blue almost like safranin, but leaves a slight sensitiveness for the other parts of the spectrum.

Oxidised apomorphine behaves similarly to the safranines for all parts of the spectrum with the exception of blue. In this latter region the desensitising action is one-quarter that of the safranines. It is to be noted that the use of apomorphine hydrochloride leaves a very slight residual sensitiveness to red and that there is slight chemical fog.

Aurantia (1 per thousand ammonium salt) shows desensitising action towards the blue equal to phenosafranin, but reduces the sensitiveness towards rays of other parts of the spectrum only to 1-400th.

Picric acid in 1 per cent. solution acts chiefly as a filter, and its action, which varies greatly with the concentration of the solution, is particularly marked as regards blue, for which rays its desensitising effect is greater than that of safranin but is negligible for other rays.

Indian yellow exerts a weak action, the sensitiveness to blue being reduced to about 1-50th; for other rays of the spectrum its action is extremely small.

Lastly, neutral potassium chromate acts uniformly as a desensitiser for all the rays

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of the spectrum, reducing the general sensitiveness to about 1-40th.

Rationale of Desensitising by Safranine

In considering the nature of the action which the safranine dyes exert on bromide emulsion, it may be thought that this action is simply that of a light-filter. This hypothesis obtains little support when it is observed that phenosafranine solutions transmit both red and violet, yet desensitise plates for both these rays. Moreover, the use of a dark-room lamp, the safelight of which consists of a 1 : 2,000 solution of phenosafranine, does not prevent the production of fog on plates, and particularly on panchromatic plates. Further, violet safranines are desensitisers of ordinary and panchromatic plates, as red safranines are, although the absorption spectra of the dyes are very different. It must, therefore, be concluded that the desensitising is not an entirely physical process. If plates which have been treated with phenosafranine are washed, it is found that the sensitiveness possessed by the plate before treatment slowly reappears as the dye is washed out and is completely restored when the dye has been completely removed.

These results are obtained, in the case of panchromatic plates for all the rays of the spectrum.

It is therefore clear that the phenomena require for their explanation the assumption that the bromide emulsion forms an absorption complex of much lower light-sensitiveness, and that this complex is gradually decomposed by water in the case of both ordinary and panchromatic plates.

Relative Desensitising Action

In order to measure the relative reduction of sensitiveness of panchromatic plates for the different parts of the spectrum we made a comparison scale by impressing a spectrum on a series of Lumière Chroma panchromatic plates with exposures which were relatively 1, 2, 3, 4, 5, etc. These plates were treated in a normal diamidophenol developer. Exposures were made in the spectroscopic camera under the same conditions on panchromatic plates of the same emulsion after immersion for 1 minute in the respective desensitising solutions.

The plates were well drained and placed whilst wet in the holder of the spectrograph and exposed for a time 60 times greater than the plate of the preceding series which received the longest exposure. The resulting spectra were developed under the same conditions as those obtained on plates the color-sensitiveness curve of which has been shown above.

The reduction of sensitiveness in comparison with the untreated plates was thus ascertained, the results being as follows:—

Desensitiser	Time of Immersion Minutes	Sensitiveness after treatment, compared with original sensitiveness
Phenosafranine, 1/2000.	1	1/750 to 1/800 for blue, maximum about 425. Sensitiveness destroyed for all other parts of spectrum.
Toluylene red = 1/1000 Eurodine.	4	1/400 for blue; 1/3,000 to 1/4,000 for other rays.
Apomorphine hydrochloride, 1/1000.	1	About 1/200 for blue. Sensitiveness to other rays destroyed, except to red, for which rays it was about 1/10,000. Slight chemical fog.
Aurantia (ammonium salt), 1/1000	1	1/750 to 1/180 for blue, maximum at about 425; 1/400 for other rays.
Picric acid, 1%.	1	About 1/200 for blue, maximum about 485; 1/120 for blue, about 475; 1/200 for other rays.
Indian yellow, 1%.	1	About 1/50 in blue-green, blue and violet; almost without action for other rays.
Crysoidine, 1/1000	1	Practically uniform effect (about 1/100) throughout spectrum.
Potass-chromate, neutral, 2%.	1	Practically uniform effect (about 1/40) throughout spectrum.

NOTE.—These tests could not be made with diamido-phenol, since the long period of exposure required by the wet plate allows the oxidation products to stain the plate, and every trace of the image is destroyed.

The experiments show that the safranines are the best desensitising for the whole spectrum. Nevertheless, desensitising is not as complete for the blue as for rays of the other parts of the spectrum.

Choice of Desensitisers

It may be asked what is the best choice of a desensitiser for a given purpose among the many desensitising substances which have been mentioned.

Undoubtedly the safranines, and particularly phenosafranine, are the best desensitisers for general use with both high-speed ordinary and panchromatic plates. The drawback which these dyes possess as

A PHOTOGRAPHIC DIGEST

regards staining the fingers and requiring long washing for removal from the gelatine film may, however, cause others to be preferred on those numerous occasions when complete desensitising of red-sensitive emulsion is not required. Aurantia, the properties of which are very similar to those of safranine, does not suffer from these drawbacks.

Under conditions when it is not required to examine plates by transmitted light, as, for example, in the development of Autochromes, a 1 per cent solution of picric acid, a 1:2,000 solution of chrysoidine, or a 2 per cent. solution of neutral potassium chromate, may be employed as effectively as Aurantia. The preliminary treatment of the plate for half a minute in one of these solutions will allow, in the case of safranine or aurantia, of noting the appearance of the image at a distance of 5 ft. from a candle or Pigeon lamp, and of watching the progress of development at frequent intervals. At the same time it is advisable to avoid unnecessary continuous exposure of the plate to the light.

These last mentioned desensitisers, which are free from staining action on paper, whilst safranine cannot be completely removed from paper, thus serve equally for desensitising bromide paper prior to development.

A. and L. LUMIERE.
A. SEYEWETZ.

—B. J. of Photography

Factors for Bromide Papers

Mr. Watkins' invitation to practical photographers who are familiar with factorial development to publish factors for different developers and make their knowledge available for others is not meeting with the response that it deserves. I can remember that similar appeals from him in the past have been met with the same silence. A list of factors suitable for use in the development of bromide paper is given below:

	Factor
Amidol (Kodak formula), normal strength.....	12
Amidol (Kodak formula), $\frac{1}{2}$ normal strength.....	15
Amidol (Kodak formula), $\frac{1}{4}$ normal strength.....	18
Amidol (Wellington formula), normal strength..	8
M.-Q. (Wellington formula), normal strength....	6
Tabloid Rytol, normal strength.....	6
Azol (1 in 30), normal strength.....	15

In general, a suitable factor for bromide paper development is from a half to two-thirds of the negative factor given in the Watkins Manual and the "B. J." Almanac. In my opinion the suggestion in the Wellcome Exposure Diary to divide the negative factor by three yields a factor which is too low and leads to under-development. With amidol of the normal strength, Kodak formula, a factor of five is particularly useful as a guide to the development of a bromide print destined for bromoil. This low factor necessitates the requisite amount of over-exposure in the bromide print appropriate to this process in order that sufficient depth may be obtained with the low degree of development.

Mr. Hall points out the possible error in timing the first appearance of the image. It is fallacious, however, to apply the data derived from experience with plates in order to make critical deductions in the case of bromide paper. The accuracy with which the time of the first appearance can be judged depends almost entirely upon the strength of the light under which examination is conducted and the rapidity of the growth of the image. Admittedly, a dark-room illuminated with an orange safe-light suitable for bromide paper is more happily conditioned than one illuminated with a red safe-light suitable for plates, and undoubtedly the image upon a piece of bromide paper grows more rapidly than it does upon a plate whose total development time is five minutes. This rapid growth and good inspection light makes the appearance of the image a very clearly defined event, and I am satisfied, as the result of many experiments relating to temperature coefficients, that an error of more than one second need not be feared. Under average conditions (not the 65 deg. F. of the instruction leaflets, which is only normally present in England upon a few days in each year), the time of appearance of the image upon bromide paper is usually about 15 seconds, yielding a total development time of three minutes. An error of 12 seconds in this total time of three minutes can readily be shown to make no appreciable difference to the depth of the finished print.—B. T. J. Glover, B. J. of Photography.

THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

A Developer for Bromide Papers

The general use of the hand camera has naturally caused a great demand for bromide papers, and this has encouraged manufacturers to place on the market several varieties of these papers in various tints and surfaces to meet special requirements.

The next important question to engage our attention is the subject of developers. "What is really the best developer for me to use?" That query is quite a common one, especially from the beginner, who is apt to think it all lies in the developer. This is not so, as a matter of fact, the richness in the color of the print lies just as much in the quality of the negative as in the developer used. We can not secure good color with a poor quality negative, no matter what developer is used. We can not get good color from the best negative if our developer is at fault. But of the two the negative is of more importance than the developer, for there are many developers that will yield good results.

Metol-Quinol, or what is familiarly known as M. Q., is perhaps the most popular developer for bromides today, just what the reason is, I do not know, unless it is its keeping qualities.

Amidol, to my mind, is superior and I say this after the experience of years with this developer. True, I mix fresh developer for every batch of prints, but then I know the exact condition of my developer each time I use it, only just sufficient is used for each print and it is only used once. This statement may prejudice the reader, it may cause him to think this would be expensive, but quality counts and I know of no surer way to get that quality than by the method about to be described, and as to cost, if it is greater it quite difficult to figure it.

Amidol has the following good qualities. It does not affect the skin as metol does

to some workers. Amidol needs no alkali, this is an advantage in bromide making. An alkali softens the gelatine on the paper and that sometimes gives rise to blisters. Blisters appear from innumerable causes and if we can remove a possible cause it is a good plan to do it. The beautiful blacks and grey tones secured in the print by the aid of this developer can not be improved upon. Amidol is easy to mix, it is on that account an easy matter to have it always fresh, this is important.

When buying amidol, purchase the product of a well known maker, the substance should appear of a light greyish color of metallic look. With age the powder gets darker, and it will not work so satisfactorily, but as the use of amidol is gaining in favor among photographers, there will be no difficulty in securing what we need.

The sulphite of soda, which is an important constituent of this developer, does not keep well in solution, and this has led experimenters to add certain salts of acid reaction to the sulphite, this is an undoubted convenience in negative work, but I can not speak from experience as to its efficacy in bromide development and I will confine myself to the method I pursue.

The following formula for the developer is that recommended by Wellington, it has given me excellent results with several makes of paper and I am glad to pass it along:

Amidol Developer

Sodium Sulphite (cryst.).....	650 grains
Amidol	50 grains
Potassium Bromide	10 grains
Water	20 ounces

As I use desiccated sulphite of soda in place of the crystals, the quantity of that salt is reduced one-half or to 325 grains. My only reason for using this salt in that form is, it saves time in making the solu-

THE AMATEUR AND HIS TROUBLES

tion. When making up your developer, first dissolve the soda completely, then add the bromide and lastly the amidol. The above quantity may be too much for the average amateur, all he need do in that case is to halve the quantities called for. If by chance some developer is left over unused it may be preserved in a bottle filled to the cork to be used the next day, but do not keep it longer.

With regard to the potassium bromide, use no more than the formula calls for or our blacks will take on a greenish tone, some appear to like this color and they call it olive-black, but I don't think it is equal to the beautiful bluish-black that a properly mixed amidol developer yields.

In bromide printing, to secure the very best results the question of correct exposure is of great importance. If you do not already know the exposure time, use a small piece of paper to ascertain this fact. Under or over exposure is fatal to good results.

We will suppose then the print to have been exposed, and the developer is ready and we have a good safe light (a yellow light) to work by, for it must be remembered a light suitable for Velox and similar printing papers may fog bromide paper which is more sensitive. When working I prefer to use three trays. On my left is placed a tray of clean water, next to that comes the developing tray and on my right, not too close, comes the tray of hypo. I take the print and slide it under the surface of the water in tray one and face up, let it soak for a minute and turn the print over, coated side down. The object of doing this is to thoroughly wet the paper and remove any air bubbles if they appear. Now remove the print from this tray and place it in the developing tray where it will stick to the bottom closely through the moisture. Tilt the developing tray up so that the water may drain off and then pour on the developer and immediately gently rock the tray. On account of the damp state of the print the developer will flow over it very easily and as the print clings closely to the tray a very small amount of developer is used. As the developer is not used a second time we must be sparing with it.

With a properly exposed print from a suitable negative we shall notice the image steadily appear and grow in brilliancy up to a certain stage and then the development appears to stop. This is the point where the print should be finished, as regards the color the print is at its very best now. If we have to dally to permit undertimed portions of our print to come up, our negative was not suitable or it had not been properly favored in the printing. If on the other hand we had to snatch out our print before this halting stage was reached, it is proof of over exposure and the color of our print will suffer. Understand this clearly, let all your work be confined to your negative and your printing, let your developing be purely mechanical and if you accustom yourself to this method of work, you will understand why the average bromide print is not satisfactory, why it often has a sick look, and at other times a heavy appearance, these defects are rarely the fault of the paper itself, but are generally traceable to careless manipulation.

The print having been developed, pour water upon it and immediately empty the now diluted developer into the sink. Rinse the print a second time and remove it to the hypo for fixing. Notice that the print goes right under the surface of the fixing solution where it should be moved about for the first minute or so. Never permit prints to collect in a mass at the bottom of the fixing tray, this invites failure by imperfect fixation.

Combined Fixing and Hardening Bath

Hypo	4 ounces
Potassium Metabisulphite.....	60 grains
Chrome Alum	240 grains
Water to	20 ounces

The hypo and metabisulphite should be dissolved in one-half of the water and the alum in the other. The two solutions should then be mixed, by stirring the alum into the hypo. This fixing bath may be used until discolored or its fixing action ceases. Prints should be left in it for ten minutes, not less.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

A. E. Davies, General Secretary, 1327 Grove St., Berkeley, Calif.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

John Bieseman, Director Post Card Division, Hemlock, Ohio.

James B. Warner, Director Stereoscopic Division, 413-415 Claus Spreckels Building, San Francisco.

A. E. Davies, Director Lantern Slide Division, 1327 Grove St., Berkeley, Calif.

STATE SECRETARIES

California—A. E. Davies, 1327 Grove St., Berkeley.

Colorado—H. E. High, 1023 Champa St., Denver.

Idaho—Eugene Clifford, 902 9th Ave., Lewiston.

Iowa—Harry B. Nolte, Algona.

Kansas—H. H. Gill, Hays City.

Louisiana—Samuel F. Lawrence, 1247 Oakland Street, Shreveport.

Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.

Missouri—J. F. Peters, Room 210 Union Station, St. Louis.

New York—Louis R. Murray, 927 Ford Street, Ogdensburg.

Oregon—F. L. Derby, La Fayette.

Texas—Emmett L. Lovett, care Southern Electric Company of Texas, Wichita Falls.

NEW MEMBERS

4999—John R. Edwards, 533 East Tulare St., Dinuba, Cal.

2¼x3¼ and enlargements, Velox of landscapes; for landscapes and genre. Class 1.

5000—Miss K. McManness, 402 W. Sandusky St., Findlay, Ohio.

5001—Joseph Williams, 127 N. Main St., Los Angeles, Cal.

3¼x5½ Azo of Kiowa Indians, public buildings, parades, water scenes, frozen fountain, and wild animals; for Indians, pretty girls, water scenes, public buildings, steam ships, steam trains, wrecks, fires, parades and fountains. I desire to exchange only double W. paper, 3¼x5½ or larger. Class 1.

5002—Robert T. Henry, 406 Mansion Ave., Hadonfield, N. J.

3½x5¼ and 5x7 Azo, Arbuo Iris (some bromides) of landscapes, genre, portraiture; for the same. Class 1.

5003—M. S. Smith, P. O. Box 1, Metz, Ind.

5x7 and smaller Artura Iris, Cyko and others of general landscapes and scenes; for landscapes, scenes, genre, or anything of interest. Class 1.

5004—Miss Lisobells M. Robe, 738 Sixth Ave., San Francisco, Cal.

3¼x5½ of mountain and view scenes of city and country; for mountain and landscape views or street scenes. Class 1.

5005—Harold H. Harriss, 1929 Dwight Way, Berkeley, Cal.

Class 2.

5006—F. J. Barnecut, Box 60, Walsh, Alberta, Canada.

Any size to 5x7 Velox, Azo and Cyko of scenic and amateur dramatics; for the same or anything of interest. Class 1.

5007—Alexander van Dam, 16 Yamamoto-dori, 4-chome, Kobe, Japan.

I would like to exchange photos with ladies and gentlemen about subjects determined by both parties.

5008—Duane D. Phalen, 140 Cook St., San Francisco, Cal.

4x5 and smaller on developing of scenic; for anything of interest. Class 1.

5009—E. Sloane, 351 W. 14th St., Apt. 24, New York, N. Y.

4x5 to 6½x8½ of photographs of children at play, diving snapshots, scenes in China, Japan and the East Indies; for outdoor studies of boys, "Ole Swimm'n' Hole" scenes, etc. Class 1.

5010—Abner J. Starr, Ross, Ohio.

4x5, 2¾x3¼, post card on Haloid of landscapes, general outdoor scenery; for the same. Class 1.

5011—G. E. Michael, 404 S. 1st St., Council Bluffs, Iowa.

Class 2.

5012—J. Mauz, Fallon, Nevada.

4x6 and 8x10 Artura, of general portraiture; for the same. Class 1.

5013—Howard Nichols, 802 East Winchester St., Ashland, Ky.

3¼x5½ Azo and Velox of street scenes, landscapes, marines and views of interest; for the same. Class 1.

RENEWALS

1213—A. B. Davis, 1609 Belvidere Ave., Detroit, Mich.

2011—Levi French, Oakdale, Cal.

4049—Robert S. Blatchford, Reserve, New Mexico.

Class 2.

4355—C. S. Beardsley, P. O. Box 573, Vallejo, Cal.

4452—Wallace R. McBlain, 6604 Vermont Ave., St. Louis, Mo.

2¼x3¼ of scenes of the Philippines, Japan, Hawaii and others of general interest; for scenes of general interest, especially travel, historical and military. Class 1.

4567—A. R. Davis, Jeffersonville, Ohio.

4583—Otto J. White, 1729 California Ave., St. Louis, Missouri.

4829—Daniel Holcomb, R. F. D. 2, Box 3, Cogar, Oklahoma.

Class 2.

4839—Melville M. Soley, Oakdale Park, Hudson, N. Y.

Class 3.

4799—Howard J. Hite, 116 Genesee St., Lansing, Mich.

3¼x5½ Velox and Azo of landscapes, portraits, animals, etc.; for landscapes, historical places and people and anything of interest. Class 1.

CHANGE OF ADDRESS

1572—Harry E. Bishop, 1824 Central Ave., Indianapolis, Ind.

(Was 6210 Dorchester Ave., Chicago, Ill.)

4447—G. W. Grant, 1405 38th Ave., Oakland, Cal. (Was 3817 E. 14th St., Oakland, Cal.)

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

While the notices under this heading are strictly in the nature of information and news for the benefit of the reader, and are neither paid for nor actuated by our advertisers, we are compelled by the Postal Laws to mark them as follows:—Advertisement.

Reported by Wm. Wolff.

Wm. Richardson of the Northwestern Photo Supply Company, Seattle, spent the second and third week of September in San Francisco.

John Paul Edwards, formerly of Weinstock Lubin Company, Sacramento, is now with Hale's of the same city.

H. Sackrider, Marysville, has just had hardwood floors put into his entire studio. It certainly is a great improvement.

Harry Zink, who is connected with his father's studio in Chico, went out recently for his limit of deer, and he got it, too.

Miss Edyth Hayden, formerly of Roseburg, Oregon, has opened a studio in Medford, of the same state.

Bert Hinthorne and family, Ashland, Oregon, expect to drive to Salem State Fair the last of September.

Mrs. Minnie Clark has taken over the Hayden Studio in Roseburg, Oregon. We wish her success.

"Polka Dot" Miriam Owen of Ing & Allee Drug Company, Sacramento, Cal., just returned from Lake Tahoe, where she went on a reducing trip and it certainly worked out beautifully. Mrs. Sadie Low of the same place as Miss Owens held fort while Miriam was away.

They say Mrs. Van of Ing & Allee Drug Co. has some cellar. Writer will give her a call next week.

Writer has just returned from a trip in Northwest and found conditions very good. Weather perfect.

Portland Photo Supply Company has made several improvements in their store. The new Pen department is a credit to any place.

Ed. O'Neill of Pike & O'Neill, Portland, is just the same congenial chap he was when on the road for Eastman.

Blue Bell Camera Club

Amateur photography appears to be the most popular hobby today. To admit one has never used a camera is almost to invite incredulity, so universal has the habit of picture making become.

Employees of the associated Bell Telephone Companies have their own photographic organizations. The Michigan State Telephone Company, the Detroit branch, under the leadership of Wm. B. Kemp, as president of the Camera Club, has decided to try out a new arrangement. It has been determined to run a page or more of camera articles and pictures in "The Mouth-piece," the official organ published each month and this photographic club has instituted print competitions for the purpose of obtaining pictures for their page.

There are naturally a large number of camera users in the general office organization in Detroit as well as Company organizations throughout the State, and these have some advanced amateur photographers among them. The Blue Bell Camera Club has been organized with the idea of benefiting any and all camera users in the organization, by means of talks or articles and by circulating magazines and books, for those who wish to read them. It is believed that these activities will materially improve the quality of work submitted.

Camera Craft is naturally interested in this new plan and Mr. Kemp has promised to give occasional reports which we shall be pleased to pass on to our readers.

CAMERA CRAFT

The View Finder

This little reminder of the doings of the California Camera Club comes to us with the insistent regularity of the music of an alarm clock, and it must be taken notice of if we wish all to go well.

We of these parts love breeze; we welcome it from the ocean and the bay, it is everywhere and in The View Finder—please notice:

“Ho, there! Buddy! Heard all about the big annual bay outing to Paradise Cove?”

Coming off next month, Sunday, October 9th. You all remember the good time we had last year. This will be an improvement on that one. For one thing, this year we will have the exclusive use of the Park for the day. The outing will include a trip around the bay, and through the Golden Gate. Music will be furnished by same Mazza's Jazz Orchestra, both on the bay and for dancing at the park, after you have had your fill of lunch and C. C. C. Coffee.

And what a chance to take bay pictures from the double decked launch of the coves along the Marin shore line, the water front, shipping, etc. Did you ever climb the hills in back of Paradise Cove? More than one attraction there.

It may seem rather far ahead to make plans, but this is a big outing, something different. It isn't a question of as many people as will go, it is those who sign up first; so make arrangements ahead of time. The list will be posted and tickets are now on sale. This is the one outing the whole family can enjoy. Plenty of attractions.”

Then follows a very varied program for the month of September, some work and lots of play. There are many outings provided for and there is the Club coffee promised you, it must be good for the Club is always tooting it, and it never pays to advertise a poor article, therefore, it must be good.

Those amateur photographers living in San Francisco should make application for membership in this very live Club. It is not only a privilege to be a member, but we can do so much more for ourselves when kindred spirits work together. It is all to mutual advantage.

Southern California Camera Club

With the close of last season's important photographic exhibitions of International scope, the Southern California Camera Club has obtained for itself an enviable record.

Members of the club exhibited a total of more than fifty prints in all of the leading exhibitions. Otis Williams leads in the number of prints accepted. Mr. Williams succeeded in getting prints in the Los Angeles Salon, the London Salon, the Royal Photographic Exhibition, the Pittsburg Salon, and also Copenhagen. This is indeed a record, and Mr. Williams is to be congratulated for having made such a success in the world of pictorial photography. Mr. Williams is, by the way, a graduate of the New York Institute of Art, but like so many artists, finds the camera as well as the brush, a means to an end.

Closely following, as far as number of prints are concerned, are N. P. Moerdyke, Fred Archer, R. C. Lewis, John C. Stick, W. C. Sawyer, and others. Their work has received favorable comment wherever shown, and while space is limited, we must by no means forget to mention the excellent work of such artists as J. D. Boyer, Claude Williams and Frances Purdy. While the latter persons did not submit as many prints as some of the others, their work nevertheless ranks very high.

In addition to the exhibitions above mentioned, the club's members also had pictures at Portland, Toronto, and some in the traveling exhibition of the Pictorial Photographers of America.

Los Angeles can consider itself fortunate in having such a thriving and progressive group of pictorialists. It will be indeed interesting to look for the work of these persons in the coming exhibitions.

Ica Cameras

In our July issue the following errors crept into copy which we wish to correct.

Mr. Victor M. E. Koch superintends all repairs to Ica and Zeiss goods.

All enquiries should be addressed, Harold M. Bennett, 153 West 23rd Street, New York.

Ica Cameras are to be found in all the leading stores of this city.

NOTES AND COMMENT

The Ground Glass

This pamphlet, the organ of publicity of the Newark Camera Club, acquaints us with the following facts:

"It is with keen regret that we announce the resignation of Harry C. Berdan from the office of President. Mr. Berdan has, in his short period in office, served us faithfully, and was quite as reluctant to resign this office as we are to have him do so. Business reasons, however, compel him to reside in Detroit and we shall have to console ourselves with the fact that he relinquishes the office only and not his membership and well wishes for the club and its constituents.

Ground Glass and its readers wish Mr. Berdan an abundance of success in his new enterprise and our best wishes for health and happiness as well, go with him to that distant city of the flivver.

The Executive Board has chosen wisely in selecting J. Raymond Boyle to succeed Mr. Berdan to the Presidency and Lyman Lee to assume the responsibilities of the Vice President's office. Both of these gentlemen are well and favorably known to our members and fully qualified to take charge of these important positions. We bespeak for them your continued cooperation and renewed efforts to place the N. C. C. at the head of the clubs in Cameradam."

We note on page three the following entitled, Pithical Paragraphs. Here are two bits of pith we stole therefrom and our excuse for this pilfering is, we took it for the "other fellow" meaning Clubs in general, of course.

"Surely your name does not appear on the "delinquent list" posted on the bulletin board by the Treasurer? No! You had better look again. It isn't pretty to have one's name there, you know.

Although Ground Glass has something like one hundred and seventy-five reporters on its staff, most of them seem to take twelve months' vacation each year. Nuf Sed."

He's Major Charles G. D. Roberts Now!

Charles G. D. Roberts, long famous as a nature writer and novelist (his works are published by The Page Company, Boston), retired from the Great War with the rank

of major, which was quite some accomplishment when the fact is taken into consideration that Professor Roberts joined up at the very beginning as a private, worked his way up to a captaincy, in time for the Somme fighting, and then came out a "bloomin' major." Although a Canadian by birth, Major Roberts has made England his home for the past ten years now.

Kodakery

In these days, when the love of the outdoors appeals to so many, and the camera is the next necessity to the lunch kit, anything in the way of nature studies must interest and appeal to a very large number.

The July and August issues of Kodakery, have each an article by Howard Taylor Middleton on the subjects of Plume Tail and Madame Kildeer. Plume Tail is a squirrel and there are five excellent photographs of him, and the author shows you how the pictures were made, of course you will be interested if you are fond of pictures, and who is not? Madame Kildeer is a plover, she had her home on the ground floor in a field. There are seven pictures devoted to Madame, her nest and her chicks, it is all such clever work; you must see the pictures and learn how they were made, it is enjoyable to learn "the tricks of the trade."

This little book Kodakery is to be found in any photographic store, it is a great little book full of pictures, as good as camera can make. Besides this, there is reading matter especially written for the beginner.

The Princess Naida

By Brewer Corcoran

Adventure and romance are the keynotes of this new novel by Brewer Corcoran—adventure which will stir the blood of every lover of fast-moving action and culminative plot, and romance which will charm all who have a tender spot for a lovably beautiful girl and a regular "he" man. It is a tale of today, set amid the mountains of Switzerland and concerns the romantic principality of Nirgendsberg, which is wrecked on the ugly rocks of Bolshevism—a story of a brave little princess who puts unflinching faith in American manhood and resourcefulness and finds a newer and a better throne.

CAMERA CRAFT

Bill Hale is the sort of hero who would win any girl's love—a clever, capable chap with two fists and a keen sense of humor. Whether he is matching wits with suave Count Otto, romping with tiny Janos, fighting for his life in the hunting lodge at Wolkensberg, or pleading for the love of his "princess who is all girl," he is a man. The story of his fight for all that counts in life is told with a rush and sweep of action which will hold the reader breathless. The dialogue, like that in Mr. Corcoran's other books, sparkles with humor, but there is a certain pleasurable grimness in his method of handling the Bolshevik which will strike an answering note in every true American heart today. The Page Company. \$1.90. Illustrated.

When an "I" Is an "E"

Brewer Corcoran has had a number of letters from readers of his new novel, *The Princess Naida*, just published by The Page Company, Boston, asking the pronunciation of the name of his heroine. In reply to one, he sent the following jingle:
Your question, you say, is a leader,
But the answer is simple, dear reader,

For you really must see

That the "i" is an "e"

And the Princess' name is Naida.

Photo Finishing Service

The business of photo finishing for the trade has grown to enormous proportions all over the country. This has caused modern photographic plants to be erected, in which the most efficient machinery is installed to meet the steady demand for this class of work.

The National Photo Company of Minneapolis, is one of these institutions. Enjoying as it does a fine local patronage, as well as the trade of a large surrounding territory, it has now reached to distant States and is building up a wonderful mail order business. With its experience, this company has so systematized its methods, that the finished work of its patrons is returned to various parts of the country with the least possible delay.

Many amateurs send their work here for finishing. Also, those photographers in need of quantity output, postcards, etc.,

realize the advantage of dealing with an up-to-date plant on account of variety and quality of work.

You will find the advertisement of the National Photo Company of Minneapolis, Minn., on another page of this magazine. A request will bring you their price list and particulars.—Advertisement.

Watkins Snipe Meter



No doubt you have heard the expression "The dim religious light," it is a fine light and has quite an effect on people of certain sensibilities. But, to make snap shots by that light is quite another thing.

Two weeks ago we happened to visit Muir Woods and the gigantic redwoods growing there gave to that place the impressive lighting spoken of above.

Muir Woods is a great holiday resort, and cameras are as plentiful as the trees—nearly. There is a hush there, it is impressive, this is broken by the staccato snap of shutters, which is also impressive—it is great for the business!

There is a little instrument known as the Watkins Snipe Meter, had these amateurs possessed one of these meters they never would have tried snapshotting in a dim light, no matter how impressive it looked. This meter would have shown in four seconds that such effort was in vain. The amateur would have saved his film, and two rolls of film saved would have paid for the meter.

Muir Woods is not the only place where the light is dim, it is dim everywhere at certain times, which is equivalent to saying the Snipe will be useful anywhere.

This is what the Watkins Snipe Meter does:

It tells at a glance, by uncovering a bit of sensitive paper for four seconds and noting its darkness, whether the light is good enough for a snapshot, for if the paper has darkened very little a snap exposure would only waste a film. It as-

NOTES AND COMMENTS

sumes the cheaper type of camera, Brownie or Kodak, with single lens (no glass in front of stop), full opening No. 1 stop; the usual roll film or an extra rapid plate; an inland (not sea) view, and the usual average snap shutter, set (if adjustable) at say 1/25 or 1/30.

Hold the meter to face the sun or sky, so as to catch just the light falling on the subject. Turn the lid a trifle to the right, and at once count out loud, deliberately: nought and one, and two, and three, and four. Turn the lid as you say "nought," and shade by the hand at "Four." Note the result quickly. If sensitive paper is not nearly as dark as the painted tint, a snap would result in Under exposure, and be useless. If nearly, or about the same, ordarker than the tint, a snap will be about Right. There is no danger of over-exposure with this type lens. Begin counting with "nought." Do not omit the word "and."

With full opening of a single lens V. P. K., do as above but count up to six seconds.

With double or R. R. lenses (glass in front of stop with full opening F/8 or U. S. 4,) count up to Twelve seconds before noting result. And if the paper darkens rapidly darker than the tint long before the end of the twelve seconds, stop down to F/11 to make the snap. With Anastigmat lenses, stop down to F/8, darken for Twelve seconds, and act as for double lenses. But if the paper indicates Under exposure, open the lens to full opening for the snap.

Double the number of seconds for the test to eight, twelve, or twenty-four seconds, for the three types of cameras named. Then if (as is probable) the paper has darkened far beyond the tint, stop down to a medium stop, or say F/16.

There is no "matching the tint," the observation is simply to see roughly whether the paper is darker or lighter than the standard. This paper and tint are identical with those for the Bee and Snapshot Meters, to which Meters these instructions apply. When the light is indicated as too poor for a snap, a time exposure (camera on stand) will make good results still pos-

sible. For this the Watkins Bee or Snapshot Meters will (either of them) indicate how long to expose with the smaller stops. If stops are marked 1, 2, 3, give the full name of the camera when ordering the Meter, that the right special dial for that camera may be fitted.—Burke & James, inc., Chicago.—Advertisement.

WITH THE CAMERA

Notes From the Illinois College of Photography and the Bissell College of Photo-Engraving, Effingham, Illinois

Now that the concrete roads in this vicinity are being thrown open to the public, motoring is the order of the day. It is now possible to drive from Effingham to Terre Haute, Indiana, seventy miles distant, on a solid concrete highway, eighteen feet wide.

Prof. E. R. Eaton has also acquired a motor car, but his is in a class by itself, being of the racing type. When it is seen being towed through the streets, it is not crippled, but simply being "heated up."

One of our most recent graduates to "make good" is Mr. C. Ernest Egbert, who is now located in the Hayes Studio at Detroit, Michigan.

A number from the College recently motored to the Pana Chautauqua to hear the Hon. William Jennings Bryan. The auditorium was thronged with interested listeners. Mr. Bryan possesses a characteristic amount of humor. He made a statement that the 10,000,000 automobiles in the country today, had been built since he commenced running for the Presidency.

"Daddy" Snodgrass is exceedingly agreeable lately, and everyone attributes it to the fact that a new boarder has arrived at his house. The little lady will be known as Ida Lois.

Improved highways and automobiles are bringing friends closer together. Prof. D. J. Cook and family drove to Indianapolis to spend the week-end with the McGinnis family, formerly of Effingham.

Messrs. Norton B. Webster and G. H. Smith have opened a studio in Hamburg, N. Y., the home of the former. Both these young men were in attendance at the College during the past winter and spring.

—Advertisement.

CAMERA CRAFT

A Flower of Monterey

By Katherine B. Hamill

The wealth, beauty and sunshine of the Californias in the days when Spain controlled our western coast and England looked with covetous eyes form the setting for this beautiful and artistic romance by a new author. Mrs. Hamill has recreated vividly the little Spanish town where the mission bells rang silvery at dawn, where scarlet uniforms flashed in the stately drill of an afternoon dress parade and beautiful women wore lace mantillas. Pajarita, the "Flower of Monterey," is an American waif, cast up by the sea, who grows up among the senors and senoritas, happy as the sunshine, but with a healthy American disrespect for the Spanish modes of life. The historical setting of the story is correct and the romance unfolds with dash and symmetry.

The Page Company. \$1.90. Illustrated.

Visual Instruction

The University of California, through the Department of Visual Instruction, aims to serve as an exchange from which schools, churches, clubs and other organizations can obtain good, wholesome motion pictures and slides.

Rapid advances have been made in the use of motion pictures and slides in education. While in 1916 there were only about fifty organizations in California apart from theaters, equipped with projection apparatus, today there are over 650. During the past year 200 schools and churches have been equipped. Good motion pictures are needed by all up-to-date educational institutions.

These include educational subjects in literature, history, geography, biology, and physiology; interesting story films, both instructive and entertaining; and exceptionally good photo plays.

Every school, church, and club should own a motion picture projector. A portable projector of the suitcase type costs only \$250. The larger machines cost from \$575 to \$625. Funds for the purchase of a projector will usually be advanced by a local bank. The money can then be repaid with the proceeds of entertainments. The average entertainment costs but \$12; through the sale of 500 tickets at 20 cents

each, nearly \$100 can be raised. Several schools have paid back the full sum borrowed within two months.

A projector can be obtained, if \$100 is paid down. This sum may be raised by an advance sale of season tickets for entertainments. The other payments may be made from the receipts taken in at the door.

An operator with a projector and an excellent program of instructive and entertaining films can be sent from the Department of Visual Instruction to any school or church within a radius of 75 miles from Berkeley, if the building is equipped with 110 volt electricity. An entertainment will more than pay the expenses connected with it and the surplus may be applied to the purchase of a projector or to any other worthy object.

Verona

Verona is the name given to the new medium for contact and enlargement prints, placed on the market by the House of Barnet, to meet the demand for a paper giving a warm tone direct by development, which shall be distinct from other papers hitherto obtainable.

The colour of the image, together with the special base on which it is coated, gives the impression of a mellowed mezzotint, having that wonderful depth peculiar to that process of engraving.

Usually associated with tones, other than that of the everyday bromide print, are those which require special treatment, but it is not so with Verona, the warm tones are obtained by what may be called normal treatment.

It may be asked "If I adopt Verona will it respond to the usual methods of redeveloping of Barnet paper, and will the tones be as pleasing?" The answer is yes, for though a distinct modification of colour is obtained by direct development and a delightful warmth is the result and is the special feature of Verona, yet it yields to the normal treatment of toning where decided Sepia tones are required as well.

Verona is about four times slower than our normal bromide papers, and negatives required need be of no special quality in order to obtain desired results.

J. L. Lewis is sole agent in America, 522 Sixth Avenue, New York.—Advertisement.

NOTES AND COMMENTS

The Studio

The latest number of the Photo Miniature series, entitled "The Studio," gives valuable information to any photographer whether building a new studio, or altering an existing one.

This book is profusely illustrated with half tones, and also diagrams of studio construction. Between its pages we find information on such subjects as, Glazing, Choice of Glass, Artificial Light Studios, Lighting Systems, Heating, Ventilation, Decoration, Color Schemes, Adapting Old Material, Floors, Shades and Blinds, Apparatus, Backgrounds, Screens, The Head-Rest and Furniture.

And yet with all this, we have not quoted all the contents of this little book. There are the studios of prominent photographers discussed, that of itself is interesting, for we like to know how the shining lights of the profession worked, and under what conditions of lighting they were enabled to accomplish the things that have brought their names to our attention as masters of their craft.

The amateur too, especially the amateur portraitist, who never contemplates the ownership of a studio proper, will glean information worth while, and he will have another book of real interest to add to his collection.

"The Studio" is published by Tennant & Ward, New York, price forty cents; and Houghtons, Ltd., London.—Advertisement.

A New Hypo-Alum Bath for Sepias

Sam Zanoff, with the Towles Studio, of Washington, D. C., writes us that he has been experimenting for a long time trying to get away from the "sick-looking sepias that so many photographers produce, and that he has finally succeeded. He sends us some Artura prints from negatives made by Will Towles, and they certainly bear out all he says about the process, which, by the way, can be worked on any paper. Here is Mr. Zanoff's formula, which he is glad to offer for the benefit of others:

Toning Bath

No. 1 (A)

Boiling Water (Rain or Distilled).....	128 Ozs.
Hypo	20 Ozs.
Alum	2 Ozs.

Boil Two Minutes

Allow to cool and then add

Sodium Phosphate	2 Ozs.
------------------------	--------

No. 1 (B)

Nitrate of Silver	60 Grs.
Water	1 Oz.
Potassium Bromide	180 Grs.
Water	1 Oz.

Pour Bromide solution into Silver solution and add precipitate and all to the cool Hypo Alum bath. If Silver and Bromide are added to bath while hot same will turn black.

Add A to B

No. 1 (C)

Chloride of Gold	15 Grs.
Water	2 Ozs.

Add C to the solution A & B.

No. 2

Hypo Alum Bath

Water	128 Ozs.
Hypo	1 lb.
Alum	4 Ozs.

Boil 10 minutes and when cool add:

Water	1 Oz.
Silver	30 Grs.
Bromide	30 Grs.

Have No. 1 lukewarm. Put prints in No. 1 for about seven minutes. Then rinse prints in clear water and then place in No. 2 Bath until they turn sepia. Prints will tone evenly all over.

The prints should be printed the depth desired, a rich black and white, as they will not bleach by this process. The warmer the tone desired the less time the prints should be kept in bath No. 1 and the colder the tone desired the longer they should be kept in No. 1.—Abel's.

Negative or Positive?

We have received a picture post card from W. C. Sawyer of the Southern California Camera Club, inviting us to call at the club rooms any Thursday evening. This card is unusual; when we first glanced at it the question arose, what is it?

On closer examination we discovered the print to have been made in the negative. Friend Sawyer would doubtless maintain it was an announcement in the positive, and we are forced to agree with him there.

You have the right idea W. C. S., first arouse curiosity in your victim, then choke him with conviction.

CAMERA WANTS

Advertisements of the nature shown below will be inserted under this heading at the rate of fifty cents each insertion, for twenty-five words or less; each additional word, two cents extra, cash with order. Those of positions wanted inserted once free. No regular business advertisements accepted.

These advertisements MUST BE PREPAID.

FOR SALE Mentor Folding camera, $3\frac{1}{4}\times 4\frac{1}{4}$, double extension, focal plane and between-lens shutter, Eurynar 7-inch 6.8 double anastigmat, like new, \$55.00; Thornton-Pickard Reflecting camera, $3\frac{1}{4}\times 4\frac{1}{4}$, pre-war model, reversible back, 6-inch Carl Zeiss-Tessar 4.5 in focusing mount, long extension, perfect condition, \$90.00. F. Miller, 3018 23rd Avenue, Oakland, Cal.

WANTED A Graphic $3\frac{1}{4}\times 5\frac{1}{2}$ or 4x5 with or without lens. Must be a bargain. Rev. F. F. Greene, Aberdeen, Wash.

FOR SALE $3\frac{1}{4}\times 4\frac{1}{4}$ R. B. Auto Graflex with Carl Zeiss Ic, f-4.5 lens. Will sell lens and camera separately. Also for sale Ica Ideal with Carl Zeiss Ic, f-4.5 lens. P. O. Box 257, Baltimore, Maryland.

WANTED 8x10 lens, f-6.8 or f-6.3, Compound shutter, speed 1/100 or something better—must be reasonable. H. L. Baker, 535 West Bay St., Jacksonville, Fla.

POSITION WANTED Camera man or commercial operator, expert, laboratory, including toning and tinting and printing. Want some outdoor work. The more skill and knowledge required the better. W. M. Lyon, 1024 Clayton St., San Francisco, Cal.

FOR SALE Two new, high class hand cameras, post card and 9x12 cm., both with double extension and f-6.8 anastigmat in Compur and Ilex Acme shutter. Bargain for \$45.00 and \$50.00. Also new postcard size anastigmat, f-6.3, in Ilex Acme shutter, \$20.00. John Falenzyk, 329 East 24th St., New York, N. Y.

FOR SALE Very complete 5x7 high grade outfit for advanced amateur, at half value, \$125.00. The Lawrence Art Studio, 12 North Main St., Council Bluffs, Iowa.

FOR SALE Studio well equipped, Kodak finishing, stock of cameras, pictures, frames, moulding, etc., in railroad and university city of 25,000. J. W. Buchanan, Assignee, Wilson Studio, Tucson, Arizona.

FOR SALE Premo $3\frac{1}{4}\times 4\frac{1}{4}$. Excellent for lantern slides or color work. Extension back for close-ups; plate holder, film pack adapter, developing tank; complete, \$10.50. A. Ray Neptune, 2128 Adams Ave., San Diego, Cal.

MUST SELL Studio in best town in Northern California, fine opening for young man. A bargain, poor health the reason. Address A. B. C., care Camera Craft, San Francisco, Cal.

WANTED 7x21 Al Vista Panoramic, artificial light, to travel and take pictures. Stull's Studio, Alton, Kansas.

FOR SALE Graflex $3\frac{1}{4}\times 5\frac{1}{2}$, Voigtlander 5.4 lens, fine condition; marine telescope; 4x5 magazine Conley, new. Sell to first reasonable offer. Arthur Rinden, Oskaloosa, Iowa.

FOR SALE Ansco V. P. $2\frac{1}{4}\times 3\frac{1}{4}$ Zeiss Tessar 4.5 lens, Acme shutter, case, \$55.00. Postcard autographic Kodak, 7.7 lens, \$18.00. W. Rowley, 6812 Normal, Chicago, Ill.

WANTED $3\frac{1}{4}\times 4\frac{1}{4}$ Graflex. Please state lowest cash price and describe fully. J. W. E., 25 South 8th St., San Jose, Cal.

FOR SALE View cameras, 8x10, $6\frac{1}{2}\times 8\frac{1}{2}$, 5x7, 4x5, 22 repeating rifle. Trade for Graflex, with or without lens, or 8x10 wide angle lens. W. Price, 2905 West 1st St., Los Angeles, Cal.

WANTED 3A Graflex for cash. Must have B. & L. Ic Tessar and must be a bargain. Write or phone L. W. Dickey, 1211 Oregon St., Berkeley, California.

FOR SALE One Universal Motion Picture camera, 400-foot Liberty War Model, complete with 50 mm. Tessar lens, six magazines, 3 cases. All like new. List \$840. Some bargain at \$450.00. Goff, 3159 Indiana Ave., Chicago, Ill.

FOR SALE 3A Eastman Special, range finder model, case, plateback, 3 plate holders, \$55.00; 3A Ansco Speedex, case, plate-back, film-pack adapter, plate holder, \$55.00; B. & L. Aero-plane camera and trunk complete, no lens, \$25.00. Anastigmat lenses, with or without shutters, bargains, prices, stamp for particulars. Geo. Schultz, Calumet, Mich.

FOR SALE Ground floor photo studio in San Francisco, modern and up-to-date, fully equipped; reason for selling, poor health. Address R. R., care The Wilton Company, 717 Market St., San Francisco, Cal.

WANTED TO BUY A first class Kodak finishing establishment in Los Angeles or San Francisco. Might consider place in Coast town of not less than 100,000. State price, terms, equipment, business and all particulars in first letter. Address James D. Allen, care Camera Craft, San Francisco, Cal.

POSITION WANTED A permanent one as retoucher; 20 years' experience; excellent references furnished; desires to learn operating, can assist with mounting, printing and spotting; expert at framing pictures. Address Mrs. H. M. Exton, 530 W. 5th St., Fort Wayne, Ind.

POSITION WANTED In first class large city studio as head retoucher and assistant operator or full charge of branch studio, by lady of years' experience. Address I. H., care Camera Craft, San Francisco, Cal.

TRADE New professional De Franne motion picture camera; 400-foot style; all trick devices forward and reverse crank, Bausch & Lomb Tessar lenses 50mm., Series Ic; new Bell and Howell tripod, extra magazine, Lomb dissolve, 800 feet of raw stock. Will trade for \$1000.00 equity. Address Equity F. E. Leiser, Burlington, Iowa.

FOR SALE Mentor 4x5, revolving back reflecting camera, Focal Plane shutter 1/1300; complete with holders, film pack and roll holder, no lens, \$45.00. Edward Emerich, 1440 Diversey Parkway, Chicago, Ill.

PHOTO STUDIO For Sale, best location in San Jose, Cal.; suitable for one man or couple. For particulars, address Box 16, care Camera Craft, San Francisco, Cal.

FOR SALE Two business lots, studio building, 40x28 feet, stuccoed, skylight, 4-room cottage in rear; population 20,000, on bay, 15 miles from San Francisco, factory city, seaport, growing rapidly, no real hot or cold weather, lots of work, good proposition for good man. Property without business more than worth what I ask. Well because of wife's health. Price, \$6,000.00. 255 12th St., Richmond, Calif.

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CAMERA CRAFT



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CAMERA CRAFT PUBLISHING CO.

Claus Spreckels Bldg.

San Francisco

California



CAMERA CRAFT

A Photographic Monthly

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"PORTRAIT OF LITTLE GIRL"
(Pittsburg Salon, 1921)
By WALTER C. and THOMAS M. JARRETT

CAMERA



CRAFT

A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief
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SAN FRANCISCO

EDGAR FELLOES,
Associate Editor
CALIFORNIA

VOL. XXVIII

OCTOBER, 1921

No. 10

Reflecting Cameras

By C. D. Ostrom



With Illustrations by the Author

To my mind the reflecting type is the camera that comes nearer to being infallible than any other instrument on the market today, at least that has been my experience.

My photographic career began about twelve years ago when I purchased a 2-A Brownie. I soon realized the limitations of the single meniscus lens, so I purchased a I-A Kodak Jr. with a rectilinear lens. Later I traded this for a 3-A camera with F-7.7 lens, I was serving my apprenticeship as you see. In the meanwhile I had noticed advertisements from time to time of the reflecting type of cameras and their wonderful advantages over the cameras of other makes. I finally decided to purchase one or "bust." It nearly "busted" me alright but I finally got one without mortgaging the house and I started out. My first buy was a Compact Graflex 3-A size, this I soon sold and bought a 4 x 5 Telescopic Revolving Back Graflex, as the advantages of the revolving back are many.

Contrary to the usual belief, this camera is really more an instrument for the amateur than the professional—it eliminates most of the causes of amateur failures. It is doubtful if I would ever have decided to make my living by photography had I not bought my Graflex.

With a reflecting type of camera you are prepared to photograph almost anything any time, any place, with the possible exception of wide angle and difficult interior work. Speed photos, time exposures, sunsets, flashlights all are possible with this machine.

CAMERA CRAFT

The Swan Dive

The Jackknife Dive



F-5.6. "CLOUDY BRIGHT." 1/325th second.

I have no trouble getting sunsets with my camera without a filter, point the camera at the sun, stop down well and blaze away.

In photographing children a reflecting camera is indispensable. The shutter supplied with this type of camera can easily "stop motion." I have secured tennis and baseball pictures showing the balls in flight. Naturally it takes a little experience to do speed stuff, but practice will enable you to snap the shutter at the exact moment to secure the position of the moving object desired.



TROTTERS. 1/660th second F-16. Graflex Plate.

REFLECTING CAMERAS

"Mama Loves Me!"



BRIGHT SUN. Stop F-8 1/110th Second. Seed 30 Plate.

In auto and horse racing I focus on the center of the road and snap the shutter a fraction of a second before they reach the point of focus. One cannot follow a moving object on the focusing screen and be sure of good results. Diving is the hardest stuff for me to get and get right. In the "swan" and "jack-knife" dives (which make the best diving photographs) the diver only holds the position a fraction of a second and it all means quick work. Some workers keep their eyes on the ground glass, but I always watch the subject, being careful not to move the camera.



SPEED 75 MILES. Stopped spokes in wheels, F-5.6, 1/£25th second.

CAMERA CRAFT

An important part of my photographic work is taking pictures for our local paper, to me the graflex is ideal for this purpose. I have a Press friend, however, who will have nothing but a Graphic camera. Perhaps my friend has it on me in taking "sneak-pictures" but in photographing important persons at close range I certainly have the advantage, as one is very apt to miss the focus with a Graphic at a short distance if not very careful, and sometimes one can not back up.

"But your outfit costs a lot" you will say, to be sure it does but it is cheaper in the long run, you have a smaller percentage of failures. It is easy to make money with one of these cameras if one has the spare time. Mine has paid for itself over and over again on baby pictures alone. In fact I have sold enough of my negatives to the Eastman Kodak Co., to pay for my camera.

On one photograph of Theodore Roosevelt I made over five hundred dollars. Without that Graflex I would never have secured that photo.

Whenever I go to the ball park and show my Graflex it's a pass to get in, the same with a circus, also the races, I never think of paying. Sometimes, of course, I get stuck for admission but very seldom. All it requires is a little brass nerve.

I use plates almost exclusively while near home, if on the road I use film packs for convenience, but I prefer plates, otherwise. For scenic work, landscapes, I use Standard Polychromatic plates. For speed work I prefer Seed Graflex, and I use Process plates for copying.

My developing is done in a tray. For speed work, I use Seed's Contrast developer, and for other subjects my choice is Pyro ABC formula.

In closing I want to say, I will stick to my Graflex until some one comes along and shows me something better that can take its place.



A REFLECTION

OUR WILD FLOWERS

Kindly Contributed by Our Readers

XI. Evening Primrose

The Evening Primrose gets its name from its habit of opening at twilight and remaining open thruout the night and closing again in the middle of the following day.

The blossoms are a brilliant sulphur-yellow in color and from 1½ to 3 inches across. The plant itself may be from one to six feet high. It is one of the eight varieties of primroses common to California which include the common "Sun Cups" of Southern California (*Oenortha bistorta*), the "Wild Fuchsia" (*Zauschneria californica*), the "Farewell-to-Spring" (*Godetia viminea*) and the "Desert Evening Primrose" (*Oenothera trichocalyx*). The colors of the varying species running from red thru yellow to white.

The primroses are one of the common flowers to be found thruout California and are easily distinguished by having only four petals and usually eight stamens.

The pictures were made on Wratten Panchromatic Plates and a Wratten K-2 filter was employed to give a proper rendering of the color of the flowers.—Merton E. Fournier.





Rainy Day Photography

By H. Syril Dusenbery



With Illustration by the Author

“Taking pictures on a rainy day, who ever heard of such a thing?” exclaims Mr. Average Camera Owner, “why to get a good picture with my camera the sun must be shining and shining right on the subject too, unless of course, I equip my camera with a special expensive lens.”

Mr. Average Camera Owner, that’s just where you are wrong. It is a common mistake to think that it takes a cumbersome outfit with fancy adjustments to produce pictures that seem to violate the rules in every amateur instruction book. While I must confess that to take pictures with the average amateur camera on rainy days or against the sun is by no means easy. I do believe, however, that with a little practice it can be accomplished.

The first step along these lines is to do your own developing and printing. Don’t do it mechanically but learn the reason why for each step. I know of no other place where one can discover the effects of over-exposure of underexposure quicker than in the dark room. Snapping the picture is only the start, surely you want to finish what you start. How can you ever expect to discover the shortcomings of your pictures if you leave some one else finish them? Finish them yourself. What if you do spoil a few films at the beginning? To reach the top of the ladder of photography you must begin at the bottom. Suppose you know a film to be under exposed, in the dark room you can mix your developing solution accordingly and thus obtain the best possible result. A knowledge of chemistry is not necessary. All that you have to do is to study the constituents of the various developers and just what part each plays. This of course applies to over-exposure as well.

After the film is developed, don’t be satisfied with it. Try to improve it. Have you ever tried intensification or reduction? Nothing like learning, and the best way to learn is, by doing. Here again you will find that you will be more successful if you compound your own solution rather than by using a preparation sold under some fancy trade name.

Then comes the printing. Sensitive paper is on the market in almost every possible surface and each surface can usually be obtained in several different degrees of contrast. Try a few different kinds and you will rapidly learn the type of pictures that each is best suited for.

I know of no better example to illustrate this discussion than my picture “Rain,” which was recently exhibited at the Emporium Salon in San

RAINY DAY PHOTOGRAPHY

Francisco. It was taken on a dark wintery day when the rain was coming down in torrents. What kind of a camera did I use? More than one person has asked me that and expressed their astonishment when I told them that I used just an ordinary post-card size folding pocket camera costing less than thirty dollars.



RAIN

This is how it was done. As a time exposure was impossible on a public street with every object in motion, I snapped it at one-twenty-fifth of a

CAMERA CRAFT

second in direct violation of the rule in the booklet accompanying the camera which specifically reads: Do not attempt to make snap shots with heavy clouds as absolute failure will result! My result was far from an absolute failure. Into the dark room I went, knowing full well that I had a roll of sadly underexposed pictures, so I mixed the developer accordingly. Understand me now, there is no magic formula that is a cure-all for defective exposure, but some formula will give better results than others for certain specific errors in exposure. The result of development was a strip of extremely thin, weak negatives. I certainly believe that if I left this roll with a professional finisher to drop in his overcrowded developing tank, I would have had nothing at all. After the films were fixed and washed in due order, I realized that intensification would be necessary if I ever expected to get anything off those films. Here again the beginner is apt to be misled if he is under the impression that intensification will produce something from nothing. Such magic does not work in photography. Intensification at best merely builds up what is already on the film. I adopted the standard Chromium formula and subjected my films to this treatment three times. In that way I improved the weak image but nevertheless I was left with a very thin negative on my hands. The last step, the printing, called for a contrasty grade of paper. Fortunately a new contrast grade of a well known make of Bromide paper appeared on the market about that time. A hasty trial showed that it was admirably suited for my purpose. My weak post card negative was enlarged to fill a piece of eight by ten contrast bromide paper which after considerable trimming, became my picture, "Rain." It is simply an example of what the average amateur camera can produce with a little patience and care.



AUTUMN

Camera in the Home

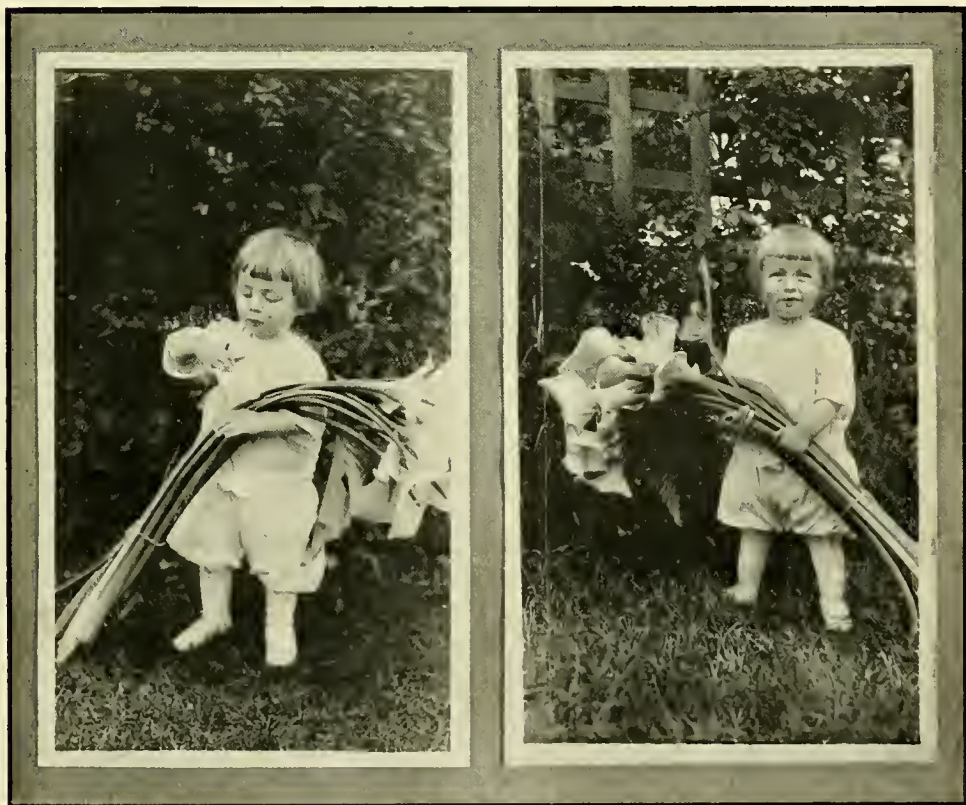
By Mrs. T. Freeman Eastman



With Illustrations by the Author

It has been said that no man is of much account who hasn't a hobby. At this particular time our two-year-old was undeniably ours; and we never tired, though doubtless he did, of catching him in all the various intimate movements so dear to young parents' hearts. This record was to prove both interesting and precious to us as time went on.

The eyes of love see much that would doubtless prove of little value to outsiders but nevertheless there is something sadly wanting in the home without a camera, especially where there are children.



Hunting the Lady-bug

"Mama, He Flow'd Away!"

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This camera need not necessarily be a costly one but by all means have the best of lenses. The results will repay you a hundred fold.

With the approach of Easter we discussed what style of cards we should send our friends with the greetings of that beautiful season.

"I Don't Wike That Hat!"



Johnny Didn't Wear That Hat

"Father-man" had an inspiration and said "let us take pictures of baby and send them with an appropriate message," so as "we" always (or nearly so) agree with the efficient member of the family we replied "of course, that will be just the thing" and baby was arranged in his best bib and tucker, an armful of calla lilies gathered from the garden and we set to work.

CAMERA IN THE HOME

We found that success was achieved much quicker by the aid of a little natural history in the shape of Madam Lady-bug, whom we carefully stowed away in one of the blossoms, and when, like all femininity, she showed a curiosity as to her surroundings, "Boy" was so enthralled in trying to assist her progress that he forgot all about being photographed. The consequence being that a perfectly natural pose of the child was secured. These were among the first pictures that "Father-man" took, but were only the beginning of a series that has followed our little boy through his work and play to his ninth year. They have proved a source of continual joy and satisfaction.

We have charted the delightfully mysterious seas of baby-hood, the wonder-filled channels of "boydom" and now our little man has his own camera, and gleefully fares forth to adventures in new fields of personal achievement. His Father, has made and adjusted to both cameras a wire frame finder, which enables the photographer to see at a glance just what he may expect with his lens. This adds much to the efficiency of the operation as the object can be caught very quickly, especially if a snapshot and gives a much more comprehensive idea of the extent of the subject. One knows at a glance exactly how much is coming withing the picture. The endeavor has at all times been to make the work perfectly spontaneous, yet with always enough deliberation to secure correct results.

The camera used for the accompanying pictures was a 3-A special, and the lighting effects in the porch pictures were secured by hanging a sheet across the opening of the porch, thus shutting out direct sunlight. The exposure time was one-tenth of a second. Owing to the press of other work, the developing has usually been done commercially.

I might add in conclusion that, no matter how busy you are, or what absorbing interests occupy your time, don't neglect to "Cameraize the children." It sounds like some awful form of vaccination, but is really a sure prevention of a life-long regret based on only shadowy memories of "when Johnny was a baby."



STRANDED

Harbingers from San Francisco

By Percy Neymann



With Illustration by the Author



SAN FRANCISCO BAY

To town and hamlet, to hidden cove,
Greetings on wings through the Golden Gate
Wherever you are, wherever you rove,
From San Francisco and the Golden State.

Their message is to you, kind friend,
They bring to you our love and cheer;
Their beauteous, silent wings portend
All that is happiness and dear.

Portable Enlarging Apparatus

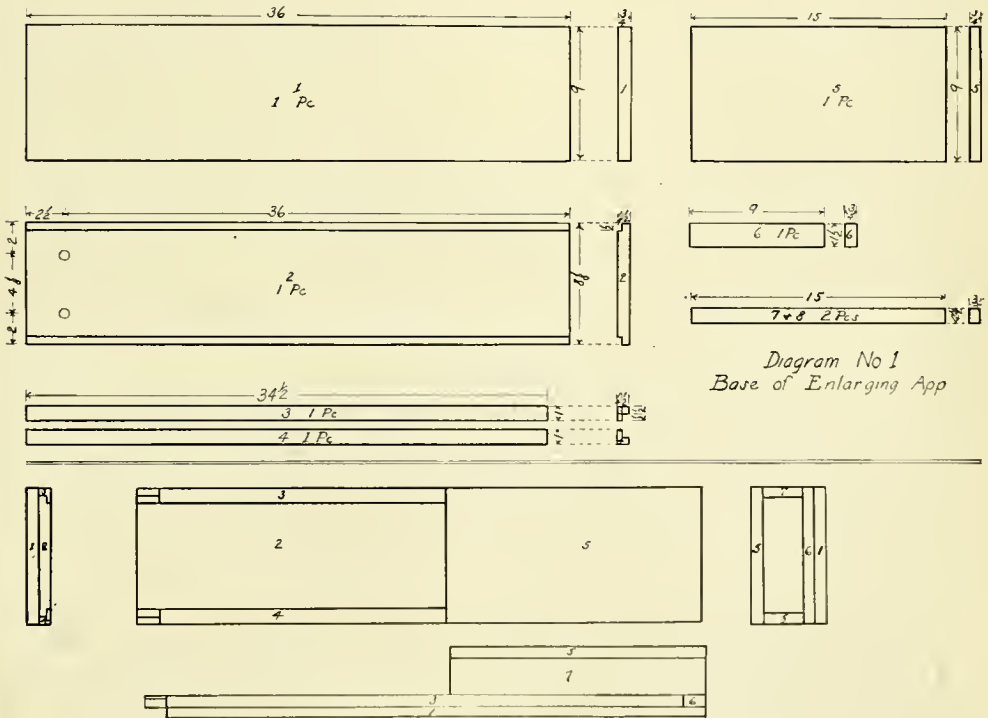
By G. Allen Young



With Illustrations by the Author

The user of a small camera who does his own developing and printing would often like moderate sized enlargements from his negatives, but having to rig up some special means of making these every time is inconvenient, and if one has not a good sized dark room it is impossible to build in permanent enlarging apparatus.

Of course there are many fine portable enlargers on the market, but the price of these is prohibitive to many and besides that there is a great deal of pleasure to be derived from making one's own.



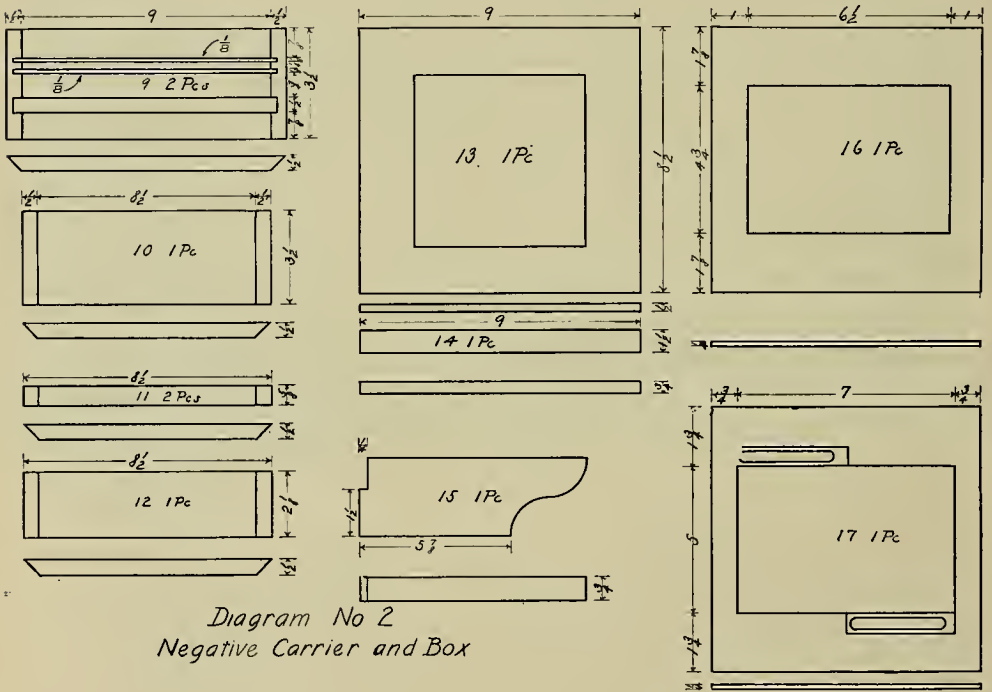
As I have just completed a portable enlarging apparatus that fulfills every expectation, I will describe it for others who might like to make one along the same lines.

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My demands were for an enlarger that I could put into operation quickly and easily, make enlargements up to about 11 x 14, with an extreme size of 16 x 20, use in an ordinary room at night and when I was thru with it, store away without taking up too much space. The one I built filled this bill exactly.

The necessary materials are not numerous, but as I had quite an elaborate stock of miscellaneous parts at my disposal I will describe exactly what I used. The reader will find many places where substitution of simpler things is possible.

The greatest expenditure is for a reflector. An old camera front, bellows and bed should be picked up very reasonably and but a small amount of lumber and metal is needed.

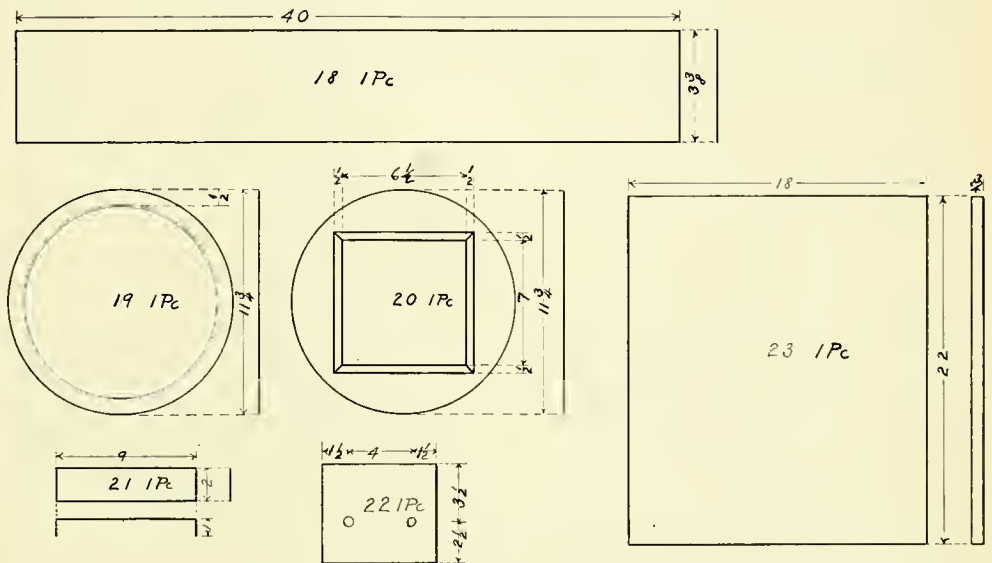


The first step is a base board, this is simply a piece cut to dimensions as shown in Diagram No. 1, Figure 1, next is the easel bed, Figure 2. This one can have cut at the mill or it can be built up to dimensions given by using two different width pieces. Figures 3 and 4 are the tracks that the easel bed slides in, these can also be cut at the mill or built up. Pieces Nos. 5, 6, 7 and 8 cut to dimensions given.

When you have these parts all cut, smooth each one carefully with sand paper and assemble as shown in lower section of diagram No. 1.

PORTABLE ENLARGING APPARATUS

Tracks 3 and 4 are first glued and nailed along outer top edge of baseboard, space these so that easel bed slides easily between them. The front ends should be brought flush with front end of base board and the strike, piece No. 6 across the back ends. The pieces Nos. 7 and 8 are put on top of the tracks at back end of base and across these goes the lamp and camera bed, piece No. 5. When you have this all assembled and smoothed up give the whole two or three coats of white shellac.



*Diagram No 3
Metal Cylinder and Easel*

After the base is complete the next part necessary is the negative carrier box. The dimensions of all parts for this are shown on Diagram No. 2. The sides for this can be cut in two pieces. One for the back, and one for top and bottom, cut to length and grooved. Two of these grooves are for ground glass and the other for the negative carrier. These grooves are best cut at the mill when you get your lumber as a circular saw is the easiest thing to do it with, altho these grooves can of course be cut with a chisel or groove plane if you prefer.

It will be necessary to have a mitre box to cut these pieces, and this can be made of three short lengths of 1 x 4 and the necessary cuts marked out with a square.

Cut two of the grooved pieces, each according to dimensions given in diagram, mitre these as shown with the grooved side the short side. Next the four ungrooved pieces in the same manner. We now have all the parts for the negative carrier box with the exception of the front, and this can be

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assembled. Hinge the door to swing toward the front and bend a metal flange to go on the outside of this door so when closed it will cover all cracks on this side. The dimensions of metal flange are given in diagram No. 3, Figure 21.

The front of negative carrier box is Figure 13 on diagram No. 2. The opening cut in the center of this piece is governed by the camera or bellows one is going to use. I had an old camera from which I salvaged the bed, bellows and front, and altho all of these parts can be made, I believe it will be much easier to buy an old camera with a fairly long bellows extension. One ought to be able to pick up all that is necessary very easily.

With this front board made, and the opening cut in it the size of the back of your bellows, the photograph of the enlarger will show how these are put together. A light wood frame will be necessary on the inside of the back end of the bellows and strips of felt or other heavy close woven cloth should be put under this frame when the bellows are fastened to front board in order to make it light tight. Strips of cloth should also be glued on around the front edge of negative carrier box. The front board of this box which carries the bellows should be screwed on, and these strips will take up any unevenness in the wood and make this joint light tight. Before this front board is fastened on, however, it will be necessary to make the metal cylinder that the reflector comes up against, and build this on to the negative carrier box.

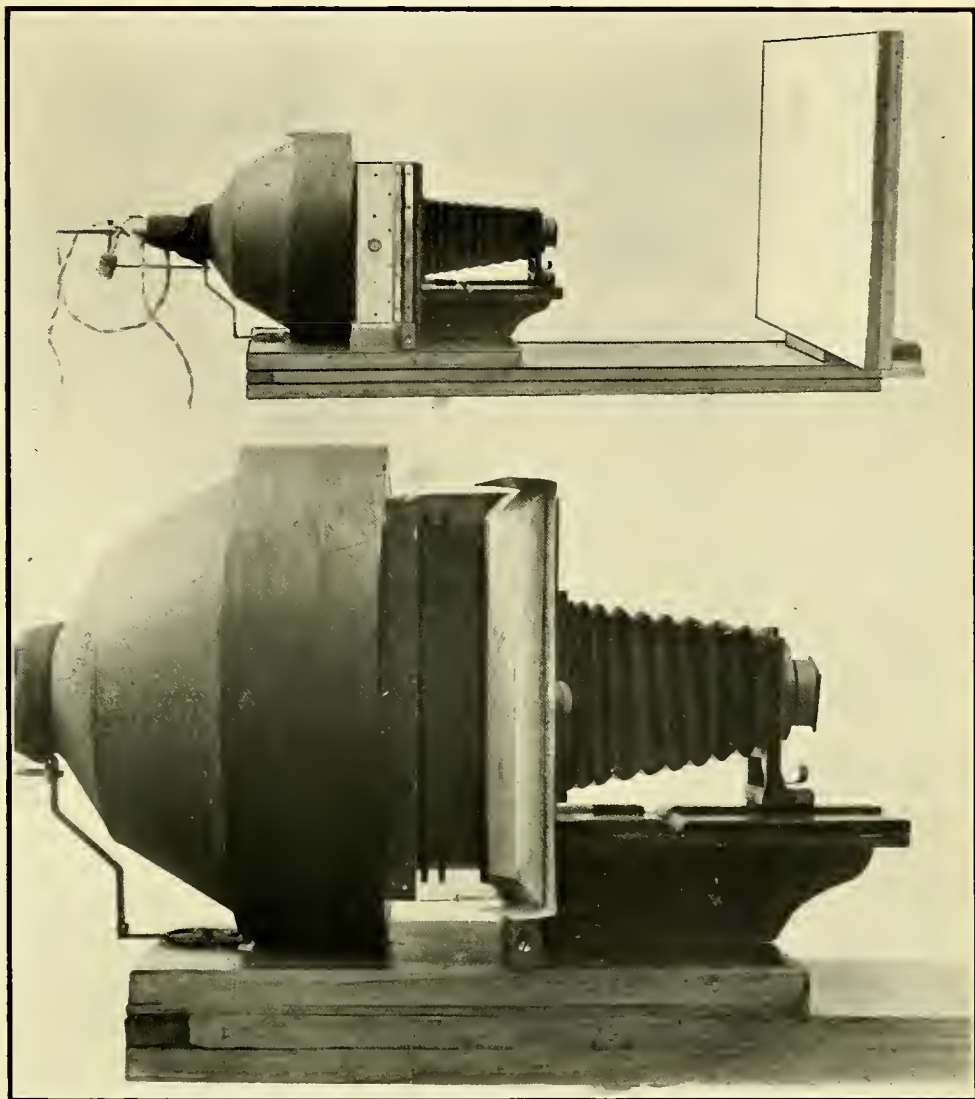
This metal cylinder is made up of three pieces as shown in diagram No. 3. Cut these out of heavy weight galvanized iron. Bring the long strip to form a circle $11\frac{3}{4}$ inches in diameter, rivet the overlap at the corners of metal presented. Next place the back circular strip $\frac{1}{2}$ inch in from edge of cylinder and solder there. The other piece is placed flush with the front edge and soldered. Bend the inside ears of front piece to fit inside of negative carrier box, punch and nail with tacks 1 inch apart all around.

Holes should be cut in top of cylinder and a flap made so these may be opened for ventilating after exposing an enlargement. Glue a strip of felt the same size as Figure 19 on this piece of metal for the reflector to bear against. Crimp a short length of the edge of cylinder over the edge of reflector at the bottom, and drill a hole thru flange of reflector and piece No. 19 at the top. Thru this hole put a small bolt and pull reflector up with a thumb nut.

Coat the inside of metal cylinder and negative carrier box up to the edge of groove cut for negative carrier with aluminum paint. The negative carrier and inside of negative carrier box from the edge of negative carrier groove to front should be painted dead black, also coat with dead black the outside of metal cylinder. The rest of the outside woodwork, give two or three coats of shellac.

A good dead black paint may be made by mixing a small quantity of shellac, lamp black and alcohol.

PORTABLE ENLARGING APPARATUS



THE ENLARGER READY FOR WORK

For illumination one may of course devise a reflector to fit the dimensions of metal cylinder, but a paralex or multiflex reflector $11\frac{3}{4}$ inches across the face is what I used and suggest.

The brace, Figure 15, diagram 2, for under the camera bed has only one dimension given on diagram, this is the bottom length. The height and top length is governed by the dimensions of bed and camera bellows you use.

When the camera end is complete, it may be fastened to the bed by screws driven in at an angle thru center brace, as shown in photograph.

The easel is outlined in diagram No. 3, the base piece, Figure 22, is nailed to the bottom of this as shown in photograph, and braced at the

BLOCKING OUT

back. For these braces get two ten-inch angle irons, cut one arm on each down to $5\frac{1}{4}$ inches, drill a $\frac{1}{8}$ -inch hole, $2\frac{1}{2}$ inches in from end of short length. These holes, after braces are placed should also be drilled thru easel support and sliding easel bed. Two $2\frac{1}{2} \times \frac{1}{8}$ flat head machine bolts with wing nuts thru these holes will allow of the easel being taken off at will and facilitates storage.

Make a negative carrier as outlined on diagram No. 2. This will take a 5 x 7 negative or two pieces of 5 x 7 glass between which may be held any size film negative. Kits may be used for smaller plates. Two small strips of spring brass serve to hold negatives in place.

Slide two pieces of ground glass in the grooves cut for same in negative carrier box to diffuse and equalize the light from reflector and your enlarger is ready for work.

I use a lens of about 6 inches focal length and find that this takes care of most of my work but this may be varied to suit the user, a lens of longer focal length will enable one to make smaller enlargements or one of shorter focal length larger.



PARAGRAPHS PHOTOGRAPHIC

Kindly Contributed by Our Readers

BLOCKING-OUT—Most photographers have on occasions to block out a background. The usual way is, with a paint known as opaque. This pigment is mixed with water to a suitable consistency and applied to the film side of the negative, the larger surfaces are covered with orange or yellow paper to reduce the work of painting.

A better way than the above is to adopt the dye method—the ordinary household dye will do; select the orange color and dissolve a little of it in hot water. With a soft water color brush of suitable size, apply the dye to such portions as need opaquing. Before applying this stain, however, soak the negative in a tray of water for about ten minutes, blot off the surface moisture and apply the dye. Should the negative show signs of greasiness gently sponge its surface with weak ammonia water.

The great advantage of this treatment over opaque, lies in the fact that we get a softer edge, and a negative so treated does not present the harsh cut-out effect. This method of treating our subject gives a more natural result to those parts of the picture showing soft outlines—the edge of the hair for instance, the rounding edge of flesh or draperies.

The preliminary soaking of the plate causes a natural softening of our edges through inhibition of the gelatine.—W. J. B., Illinois.

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A PHOTOGRAPHIC MONTHLY

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No. 10

Photographic Competitions

From time to time various photo material manufacturers and others have photographic competitions. This is done for advertising purposes of course, and is an excellent way of gaining the public's attention. In this country the Eastman Kodak Company are to the fore with these competitions and the prize money offered is generous.

There is another aspect to this competitive work which we never hear mentioned and yet, for the younger competitors especially, it is of far more value than the prize money itself. In these days of business, the matter of fact is apt to over-shadow all other considerations. We win or we lose appears to be all that is in it. But is that all?

We decide to send some pictures for competition perhaps, in our innermost heart we desire, nay we may secretly count on first, second or at the worst the third prize, other prizes being smaller we do not think of them.

In good time when the list of winners is published we may find our name missing, it was forgotten. According to palpable fact we have failed, that would be the apparent verdict. But have we really failed? That is for ourselves to decide. Such an experience is a great chance to know ourselves better. If we are small, our self-indulgent judgment is sure to whisper "there was favoritism," and this in the face of what is called common sense. It is nothing more than declaring The Company which ever it may be, is paying good money for bad advertising pictures. Is this at all likely?

The photographer who is unfortunate enough to feel this way has failed ignominiously, the prize he failed to secure is absolutely the smallest part of it. He has failed in himself.

If, on the other hand, the disappointment creates a determination to do better, that man or that woman has certainly won, and that determination is worth more than the desired prize, for this strength of character can be applied to aims of far more importance than photography. This determination also helps us reach our goal, that pleasure was merely deferred.

In the Eastman Kodak Company's announcement, the classes B & C (which are reserved for Brownies and Premos) should be of particular interest to parents. These types of cameras are most popular with the younger folks, and under favorable conditions will give surprisingly good results.

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It is the privilege of parents to encourage the juniors to take an interest, and when results warrant it to induce them to try by sending up a print or two. Supposing their Pet should fail, which is probable at first, what of it? Then is the time to encourage that broader view, in their training, which is so essential to their future and their happiness. Photography can be made to serve this useful end, and it should be remembered that even if we fail to win, it does not mean we have lost. Never let the youngsters feel it is a disgrace to be beaten, but they should be impressed it is a mistake not to try.—E. F.

Photo Meters

The president of a certain new photographic club sent a questionnaire to about forty members with the view of ascertaining the relative interest on a number of photographic subjects. The enquiry comprised some twenty-nine questions and they uncovered some interesting facts.

Of a total of one hundred and twenty-three votes, twenty were cast for Determination of Exposure. This easily heads the list. The next subject, the nearest to it, is that on Enlarging, this had nine votes. The question of Orthochromatic Photography brought forth only one vote, and this indifference surprised us. It leads us to think the subject of color values in monochrome is not really understood. We are loath to believe it is a matter of indifference to the photographer if red, orange, green and black should show on his print as practically one color, black, or whether he would not prefer the black to be accompanied with three shades of grey. This rendering has truth to recommend it and variety as well.

Another point of interest was the question of developers, there were five votes on this subject. Times have evidently changed, but this is proper; thirty years ago the eternal question was, "what developer did you use?"

Returning to the subject, Determination of Exposure, we wonder with whom lies the fault. Are the advertisements of exposure meters not convincing enough to command attention, or is the average photographer indifferent?

On the findings of this questionnaire it does not appear that camera users are indifferent to this subject. It can not be the cost, as the amateur buyer is very generous in his expenditures with regard to his hobby, some of them go the limit and many practice even self-denial of other things that they may have the wherewithall to gratify their photographic appetite. If an amateur photographer wants a thing, (and don't forget this) even if he thinks he wants a thing in connection with his hobby, he is going to have it sooner or later and price does not appear to be the determining factor.

To the photographer who has any doubt or difficulty in judging his exposure time, we advise the use of an exposure meter or light gauge. The investment is not a luxury, but a sure preventer of waste, to say nothing of the real disappointment in failing to get (through under or over exposure) that very negative we particularly desired.—E. F.

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

A New Use For Transferotype Paper

By W. L. F. Wastell

In the issues of this paper for February 1st and 8th, 1916, I wrote of two uses of Kodak transferotype paper, other than those described in the instructions. The first was the making of lantern slides; the second the reproduction of a negative. Since then I have made a few experiments in another direction, and although I have had no opportunity of completing them, it may be useful to indicate the lines on which I was working, so that those interested may be able to experiment on their own account.

The idea is to produce from two or more negatives a combination transparency, either for use as such, or as a means for producing a negative.

This idea may be grasped quite easily by taking a simple example. Let us suppose that we wish to make a lantern slide of a landscape subject in which white buildings stand out against the sky; that the sky in the negative is not a good one; and that a better sky is to be introduced from another negative. There are various methods of accomplishing this, but by none of them is it an easy matter to get a perfect fit without overlapping or gaps. I believe it can be done better by the use of transferotype than in any other way, and I will outline the procedure. Many variations are available and permissible, and the instructions issued with the paper will help.

I advocated the use of an amidol developer for the purpose, and that development should be carried to finality. The first step is to find the exact exposure for the landscape negative to give a perfect print with full development. Then another piece of paper is exposed for double this time for a delicate slide or for three or even four times for a strong one. This piece is fully de-

veloped, fixed in plain hypo, washed, and dried. A piece of glass, $3\frac{1}{4} \times 3\frac{1}{4}$ in., is laid on the print so that the subject to be included occupies its correct position, and a pencil line run round the edges of the glass. The print is trimmed just inside the lines so that it is a trifle smaller than the glass. It is then well soaked in cold water and squeezed into perfect contact with a cleaned and polished piece of $3\frac{1}{4} \times 3\frac{1}{4}$ -in., glass. For at least three-quarters of an hour it must be left, with a piece of blotting paper over it, under pressure.

At the end of this time the glass, with its adherent print, is placed in hot water—about 160° F. After a few moments one corner of the paper can be lifted carefully, and the whole peeled off, leaving the film on the glass. Any soft gelatine remaining on the film is laved off, and the glass is stood aside for a few minutes to cool. With a fine brush in a quill setting the sky is removed with Howard Farmer reducer, the slide being held upside down meanwhile so that the reducer does not run down over the landscape. The skyline can be carefully followed with the brush. The slide is then thoroughly washed, given five minutes in ten per cent. formalin, rinsed, and dried. When it is perfectly dry the film is coated with celluloid varnish, flowed over for preference, although it may be applied with a brush.

The next step is to make a print from the sky negative finding first the normal exposure and then increasing it in the same proportion as before. When this print is dry the landscape slide is laid on it to get the clouds in the correct position, pencil lines drawn, and the print trimmed. The same procedure as before is followed to get the film of the print on to the glass. The brush and reducer are again brought into play to clear away everything that overlaps the white buildings and the fore-

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ground. There is no separation of the images to be allowed for; all the work is done on the one plane, and the reducer is prevented by the celluloid varnish from penetrating to the landscape portion. A certain amount of reducing can be saved by partially masking the sky of the landscape negative, and the foreground of the sky negative, when making the prints.

As this is a transfer process, the subject is reversed from right to left, but in the case of lantern slides this is at once corrected by placing the spots on the opposite side.

Those who have grasped the mode of procedure in this particular example will realize that the method has great possibilities. There is no reason why the combination should be restricted to two negatives only. In using more, however, it will be necessary to plan out beforehand exactly what is to be cleared away from each transfer, and also the best order in which to apply them. Once a transfer has been varnished no further reduction upon it can take place. In many cases, the reduction will not follow a definite outline, but will resemble vignetting. It will then be necessary to work near a tap, so that the reducer can be washed off from time to time to prevent the action going too far.

Nor need the work be confined to lantern slides. By getting a suitable quality and density of image, the positives built up in this way can be used for making negatives. Both positives and negatives may be made, either by contact or by enlarging; and the negative may, if preferred, be made on a plate instead of on transferotype paper. If enlarging is brought into play, there may possibly be some evidence of grain in the transferotype image, but it will certainly be nothing like that of a paper negative, as only the actual film of emulsion is used.

At present, I do not see any way of making direct prints by this method, as I can think of no means of preventing the reducer penetrating to the first image. Perhaps others may find a way.—By W. L. F. Wastell in *The Amateur Photographer and Photography*.

Improvements in the Simultaneous Development and Fixing of Plates

The problem of combined development and fixing of photographic plates has attracted the attention of many experimenters, who have sought to solve it by addition of suitable quantities of hyposulphite of soda to developing solutions compounded in a manner specially adapted to this kind of process.

Punnett[†] attempted, along these lines, to add hyposulphite of soda to an ortol developer for the development of chlorobromide plates. Hanneke[‡], in 1889, pointed out the use of pyrocatechin developer in conjunction with caustic soda as a means of permitting the use of a large quantity of hyposulphite*. V. Crémier¹ has given the formula, of a diamidophenol developer made up with sulphite and with the addition of hyposulphite of soda. According to this author this developer, which decomposes very rapidly, serves particularly for the combined development and fixing of chloro-bromide plates and papers. Gaedicke², as the result of examining Crémier's formula, entirely disputed its practical value. More recently Chiri Otsuki and Takashi Sudzuki³ have repeated Crémier's experiments, but obtained no better results, than Gaedicke, although varying the relative proportions of diamidophenol, sulphite and hyposulphite of soda. On the other hand, they succeeded in obtaining good results by means of metoquinone developer, made up with addition of sodium hyposulphite and caustic soda. When the caustic soda in this developer was replaced by alkaline carbonates, the negatives were of poor vigor and lacking in gradation.

The results obtained by Otsuki and Sudzuki have been confirmed by Valenta⁴, who has given a disodic pyro formula, which, however, does not appear to possess any practical interest, since the solution rapidly decomposes, and gives negatives of poor vigor, whilst also stating the gelatine.

In the course of our work on this process of combined development and fixing, our experiments have confirmed those of Otsuki and Sudzuki, which are superior in practical value to those of earlier experimenters.

A PHOTOGRAPHIC DIGEST

But the production of satisfactory negatives requires a considerable degree of over-exposure.

Our experiments have been made with the aim of improving the formula of Otzaki and Sudzuki and also of replacing the caustic soda by a substance of more constant composition. We have also made experiments for the purpose of discovering if chloranol⁵, the constitution and developing properties of which are closely allied to those of metoquinone, yields similar results.

In the course of a large number of experiments, we have systematically varied the relative proportions of metoquinone or chloranol, of sulphite, hyposulphite and caustic alkali. We have made comparative tests of the action of other alkalies, namely, caustic potash, caustic lithia, ammonia, aldehydes, acetone and tribasic phosphate of soda.

Caustic potash and caustic lithia behave similarly to caustic soda, but they have the same drawbacks as the latter, namely, uncertainty of composition, and require to be used in the form of a titrated solution.

The use of ammonia leads, in every case, to weak negatives, showing fog and very poor gradation. Among the substitutes for alkalies, aldehydes and acetone behave like alkaline carbonates, and likewise give weak images lacking gradation. On the other hand, tribasic phosphate of soda is similar in its action to the caustic alkalies, which confirms the observations which we made some years ago⁶ on the use of this substance as a substitute for caustic alkalies in developers. The following are the developing formulæ which we have worked out after numerous comparative tests:—

FORMULA No. 1

Soda sulphite, anhydrous.....	32 gms.
Chloranol	6 "
Caustic soda (real Na HO).....	5 ¹⁰ "
Soda hyposulphite.....	60 "
Water	1,000 c.c.s.

FORMULA No. 2

Soda sulphite, anhydrous.....	32 gms.
Metoquinone	6 "
Tribasic soda phosphate.....	100 "
Hypo	40 "
Water	1,000 c.c.s.

It is to be particularly noted that in formula No. 1 the caustic soda may be replaced by 140 gms. of tribasic soda phosphate, in which case only 48 gms. of hypo, instead of 60 gms., is used.

These developing formulæ give negatives the clearness, vigor and gradation of which compare favorably with those obtained by the ordinary method of separate development and fixing. With formula No. 2, however, the results are somewhat less clear.

In the case of gelatine-bromide negative plates the time of combined development and fixing with the above solutions is about 5 to 30 minutes at 65 deg. F. Development takes place automatically and may be done in a vertical tank in the dark-room; the plates may be withdrawn in full daylight as soon as the process is finished.

Over Exposed Plates

Combined development and fixing of better results being obtained from over-exposed negatives than by the customary processes of separate development and fixing. For the same degree of over-exposure the plates treated by the combined method exhibit a gradation which frequently could have been obtained, when using the ordinary method, only by a very great modification of the developer for the purpose of correcting over-exposure.

Minimum Quantity of Solution to Be Used

In order that the negatives may be of assured permanence it is necessary to use the developing solution in quantity sufficient for the formation of the double hyposulphite of silver and sodium which requires to be formed in fixing and which corresponds with the following formula, obtained by ourselves some years ago⁸:—

$$2\text{Na}_2\text{S}_2\text{O}_3 + \text{Ag}_2\text{S}_2\text{O}_3 + 2\text{H}_2\text{O}.$$

If this is not done, the double salt is deposited in the film in the course of washing. Now a 9x12 cm. plate of average thickness of coating contains about 0.25 gm. of silver bromide, requiring, for the formation of the soluble double salt, 0.5 gm. of hyposulphite of soda. Therefore, for the development of a plate of this size, 50 c.c.s. of the developing solution will be sufficient, since its content of hypo is from 2 to 3 gms. according as one uses formula No. 1 or No. 2.

CAMERA CRAFT

Developing Papers and Lantern Plates

The No. 1 combined developing and fixing formula is the most suitable for the development of chloro-bromide plates and papers. Nevertheless it is advisable, when using these sensitive materials, to double the normal time of exposure. With papers it will be necessary not to develop for longer than 2 minutes, otherwise the purity of the whites will suffer. Papers containing only silver bromide cannot be developed by this method since they give considerable fog.

Potass bromide appears to be without effect in reducing this fog.

Summary

In certain cases the method of combined development and fixing which has been described may replace with advantage the ordinary method of developing, particularly in circumstances in which it is desired to employ a process requiring no supervision. According to the method the plate is simply treated in the combined developing-fixing bath for a sufficient time which is about 30 minutes. In the case of papers this time is about 2 minutes.

Inasmuch as a longer period of immersion in the developing-fixing solution is without effect, and as the illumination of the dark-room is greatly simplified when employing this process, it will be seen that this form of development may at times be of distinct service, particularly as regards the regularity of the results which it yields on plates which have been over-exposed.

A. and L. LUMIERE.

A. SEYEWETZ.

In British Journal of Photography.

† "British Journal of Photography," 1898, p. 126.

‡ "Photographische Mitteilungen," 1899, p. 141.

* A developer composed of pyrocatechin and hypo was issued commercially as "Elkonal," but the unsatisfactory results which it gave greatly limited its use.

1. "Photo-Revue," 26 (1911), p. 170.

2. "Eder's Jahrbuch," 1912, p. 6.

3. "Photographische Korrespondenz," 1914, 347.

4. "Photographische Korrespondenz," 1914, 347.

5. It may be recalled that metoquinone (which is a combination of 2 molecules of methyl-paramidophenol and 1 molecule of hydroquinone) and chloranol (which is formed by 2 molecules of methyl-paramidophenol and 1 molecule of chlor-hydroquinone) both resemble diamidophenol in possessing the property of forming working developers without addition of alkali. They are at the present time the only developing substances which, while possessing this property, can also be used in conjunction with an alkali, either carbonated or caustic, for increase of their developing power without causing rapid decomposition of the solution, staining of the gelatine, or production of fog.

Lantern Screens

No. 166,015 (May 19, 1920). The invention consists of a cinematograph screen constructed of a sheet of polished plate glass coated on its rear side with a white pigment applied direct to the glass to act as a reflector.

The screen is constructed of plate glass, preferably having the greenish tinge which plate glass usually has, and the glass should, of course, be free from blemishes, and perfectly plane.

The glass, after having been carefully polished, is provided on its rear side with pigment, e. g., zinc sulphide mixed with a solution of sodium or potassium silicate, of a strength of not less than 30 deg. B., is found to yield the best results. In order to prepare the screen, the glass is suitably supported, and the pigment flowed on to it, and the mixture allowed to dry, the action of the alkaline silicate being to bind the pigment to the glass, the whole mass becoming like a hard enamel, securely attached to the back of the glass. Other white pigments, not acted on by the atmosphere, can also be employed mixed with the alkaline silicates referred to, such as, for example, finely ground glass or white precipitated calcium sulphate. When the pigment has completely set, the plate is preferably mounted in a frame of wood, metal, or the like, and the back covered with any suitable moisture-proof protective covering, such as moisture-proof paper, varnish, or the like.

The pictures are projected on to the uncovered side of the glass plate. It is found that the greenish tinge usually present in plate glass produces a restful and soft effect to the eye, whilst the glass itself has the effect of bending the light towards the observer, so that where a screen of this type is used, the picture can be equally well seen from practically all angles in front of the screen, whereas with the ordinary type of screen, those observers sitting in the center of the room or hall obtain the best view of the picture, which latter is apt to be distorted when viewed from the sides.—Robert Gilpin, 22, Homewood Villas, Gander Green Lane, Sutton, Surrey. This should be good for autochrome projectors.—B. J. of Photography.

THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

COMPOSITION

Two Loaves and A Bun

In my early days as a student in an art school, when ambition ran high with a determination to be manufactured into a great artist, I attended a lecture on composition by a well known painter. This man had made a name for himself by his art and as a teacher, we hopefully used to declare "he was no slouch."

There are many ways of teaching of course, but the ways adopted by our Mentor were peculiar, some might say his point was at times far fetched but speaking today from memory, I do not hesitate to declare this man's lesson was driven home with a hammer. Had this not been the case, I should probably have forgotten the thought I am now going to pass on to you.

This is the story of two loaves and a bun, expounded by that talented one. Approaching the blackboard with a piece of chalk our teacher drew a parallelogram. This he declared represented the four sides of a canvas on a stretcher. Let us suppose, he continued, an artist has decided to paint a picture of two loaves of bread and a bun, then turning to a student near him he said, you go up to that board and show me how you would compose that picture. The student, very red in the face, approached the board and made a drawing like figure 1. The Professor now drew another frame and called on a second hopeful to also demonstrate his ability at composition. He did this,

and earned a snicker from his pals, see number 2. A third one, went up to fill another frame and he did this, see figure 3. We were all interested by this time and began to giggle, indeed the master with difficulty kept serious.

Excuse this digression; this budding genius number 3, developed into a humorous artist and his work became familiar in the "Sunday Supps," to thousands. The Kids also found joy in his drawings, they thought him great and they watched for his weekly coming.

"It will save time if I show you," said the Professor. Naturally there are more ways than one to tell any story, but this is a good way, and the sketch he drew is indicated in figure 4. And he continued, the loaves you will notice are not on the same plane as the bun, they are nearer to the front, furthermore, the composition is not parallel to the edge of the picture, this should always be avoided in pictorial art if possible and the reason is, it tends to give a set or mechanical appearance to our picture. An artistic and a mechanical balance are two entirely different sensations. By placing that little bun by itself it gains in importance and that importance causes it to balance the two grouped loaves. You will also notice this arrangement adds a sense of space to our background, this naturally is desirable, in the other sketches showing the composition on one plane we lose a feeling of distance in our picture. there is nothing for the imagination to work upon, there are no dreams



CAMERA CRAFT

started, you find no joy in a spiritual sense because everything is as spaced and as plain to you, as the notches on a two-foot rule.

From the little bun you will notice is added a curved line or what may strike you as a flourish, it is not merely a flourish but may well be called a trail-away. Its object is to lead the eye back to the two loaves, if we can accomplish that, the picture of the loaves will remain longer in the mind. Naturally our method must be hidden, this trail is only suggested, it may be done by a variation of tones in the background either lighter or darker, in short, we may adopt any method that is pleasing to bring the eye back to the starting point.

Let me pause long enough to assure my younger readers that the two loaves and a bun incident was merely used to illustrate an idea, and to fix it in the mind. The two loaves were intended to stand for the principal object of interest in the picture, and having looked at it, instead of the artist permitting the eye to trail off and forget the picture he introduces an object of lesser importance for the eye to tarry, let us call that the "bun," and from this we should if possible run the "trail-away," its object has been explained.

I fully appreciate the fact these things are very difficult to do in photography, often they are impossible, but to possess this useful knowledge is an advantage to



Illustrative of "Two Loaves and a Bun" Idea

THE AMATEUR AND HIS TROUBLES

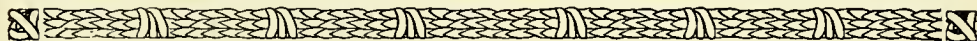
all of us, it makes us more appreciative, more sensitive to the finer points in picture making.

Have you ever seen a photograph of a group of three, father, mother and child, placed like the two loaves in diagram 1? The child is the bun of course. Now if we used diagram 4, how much better the picture would have looked. Diagram 2, suggests that style of family group known as steps.

This story would have been written before now but I had a difficulty to find the photograph to illustrate it. About two weeks ago when loafing along with my hand camera I came across this cow and the washtub just as you see it. Two loaves and a bun I thought, and there is the trail-away. I snapped the picture at once.

The cow in importance is the equivalent of the two loaves, the bun is very evident as the washtub and the peep into the distance was accentuated by trimming off one inch of picture on the right side. This was done because there was another peep there and the eye might leave the picture in that direction. What I really wished was to have the eye follow that pathway and then be guided to the left by the flicks of sky showing through the trees and back to the starting point, the cow. In painting a picture this trick would be easy, in a photograph we can only hope for the best.

The value of composition to the photographer is, it enables him to appreciate the good points in his subject and that is a matter of great importance.



CLUB NEWS AND NOTES

Club Secretaries and others will oblige by
sending us reports for this Department

Southern California Camera Club

At the last annual election of officers of the Southern California Camera Club, held the first week of this month, the following members were elected to office:

President, Ralph G. Hawkins.
Vice-President, Claude Williams.
Secretary, Miss Frances Purdy.
Treasurer, E. R. Tabor.

Board of Governors, R. M. Weed, Orrie P. Close, W. L. Jennings.

Newark Camera Club

The Ground Glass for October published in the interests of this Club has the following:

Our fall and winter programme is full of promise. We have the material and talent to accomplish everything we set ourselves to do. As for competitions: slide and print, I urge you to respond as never before. There is not a man of us but what can offer at least one entry in these two fields and there is nothing more conducive to good health in our Club than a full measure of animated interest in our own workmanship. J. Raymond Boyle, President.

The View Finder of the California Camera Club

What has been your ideal of a camera club? What has been lacking here? Is it some new equipment, or some of the comforts that give a homey, cozy, clubby atmosphere?

On the 15th of November will be your opportunity to help realize that dream. The C. C. C. is giving a benefit dance at Native Sons' Hall; a fine floor, lively music, good refreshments, a jolly time and for a worthy cause. The proceeds of the affair will be used for improving and refurnishing our club rooms. It'll be a great club, when it's all fixed up, if each member will only co-operate. Sad, but true, it takes money to refurnish.

But we know every member will feel proud of the improvements—which will be in proportion to response to this benefit.

To what avail is our position—our size—if we do not keep up with the times? We have not solicited any funds outside of the regular dues for several years. But there are so many things which could help make this the greatest camera club—won't you do your bit?

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

A. E. Davies, General Secretary, 1327 Grove St., Berkeley, Calif.

If there is no officer in your State, address the General Secretary.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

John Bieseman, Director Post Card Division, Hemlock, Ohio.

James B. Warner, Director Stereoscopic Division, 413-415 Claus Spreckels Building, San Francisco.

A. E. Davies, Director Lantern Slide Division, 1327 Grove St., Berkeley, Calif.

STATE SECRETARIES

California—A. E. Davies, 1327 Grove St., Berkeley.

Colorado—H. E. High, 1023 Champa St., Denver.

Idaho—Eugene Clifford, 902 9th Ave., Lewiston.

Iowa—Harry B. Nolte, Algona.

Kansas—H. H. Gill, Hays City.

Louisiana—Samuel F. Lawrence, 1247 Oakland Street, Shreveport.

Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.

Missouri—J. F. Peters, Room 210 Union Station, St. Louis.

New York—Louis R. Murray, 927 Ford Street, Ogdensburg.

Oregon—F. L. Derby, La Fayette.

NEW MEMBERS

5014—D. F. Klemm, Supt. of Schools, Box 498, Ellis, Kansas.

3¼x5½, Developing paper of miscellaneous; for anything of general interest. Class 1.

5015—John Johnson, Manilery, Kojaviken, Sweden. 10x15 and smaller; Velox and Cyko of landscapes and country scenes; for anything of interest. Class 1.

5016—B. M. Alberts, Nahcotta, Wash. 3¼x4¼ Velox and Cyko, of animal and marine views and Graflex subjects; for nature studies and Graflex studies. Class 1.

5017—J. Whittle Martin, Administration Bldg., Navy Yard, Norfolk, Va. Class 2.

5018—G. H. Brown, Box 193, Florence, Ala. 4x5 and 5x7 Azo and Semi-Matte of mostly nature studies; for travel and nature studies. Class 1.

5019—Charles A. Flanagan, 147 Wilson Ave., Morgantown, W. Va.

2½x4¼ and enlargements of various sizes Velox and Artura of mountain scenes, street life and portraits; for anything of interest, especially landscape photography. Class 1.

5020—Leonard Ruisinger, 1274 16th Ave., San Francisco, Cal. Class 2.

5021—C. Ferris Smith, Colville, Wash.

Vest Pocket and 2½x4¼ Velvet and Azo of views, such as lakes, falls, forest fires, etc.; for scenery and things of general interest. Class 1.

5022—John Nelson, P. O. Box 893, Roseburg, Ore. 3¼x4¼ and 2¼x3¼ Azo of landscapes, groups, marines and views of interest; for the same. Class 1.

5023—O. R. Gregory, 350 22nd Avenue, San Francisco, Cal. Class 2.

5024—Carl Stahlbrodt, 266 Gibbs St., Rochester, N. Y. 2¼x3¼ and 4x5 Matte, Semi-Matte, Glossy Carbon of outdoor scenery, indoor school scenes; for figure studies, nudes, daring girl poses, scenic views and actresses. Class 1.

5025—Howard Nichols, 802 East Winchester Ave., Ashland, Ky. 3¼x5½ Azo and Velox of street scenes, views of interesting places; for views of different cities and points of interest. Class 1.

CHANGE OF ADDRESS

4954—Victor Scheen, Curtis Hotel, W. Park St., Butte, Mont. (Was Kootenai Lodge, Big Fork, Mont.)

RENEWALS

1045—Vince Dillon, Fairfax, Okla.

3905—Bothe's Prompt Photo Service, Williams, Arizona. Up to 5x7 and enlargements of Arizona views including the Grand Canyon; for nudes and bathing girls. Class 1.

4159—J. S. Ross, P. O. Box 307, Moncton, N. B., Canada.

4291—John R. Palmer, Delaware Literary Inst. & Union School, Franklin, N. Y. Class 2.

4523—A. K. Mehl, Nat'l Mill Sup. Co., Fort Wayne, Ind.

4632—J. H. Hans, 609 E. 8th St., Kansas City, Mo. Nudes; for the same. Class 1.

4682—C. B. Clark, Beach Photo Studio, Pacific Grove, Cal.

4676—W. C. Telford, Kerckhoff Power House, Auberry, Cal. Class 2.

4745—Carl W. Beese, R F D No. 5, Fenwick, Ontario, Canada. Class 2.

4815—A. Phillips, 99 Howick St., Launceston, Tasmania, Australia. 6x4 and smaller D. O. P. of landscapes, scenery, views, bird and flower studies and objects of interest; for the same and animals. Class 1.

4834—Leo E. Fitzgerald, Charlton, Mass. Class 2.

4337—Lora M. Jennings, 234 N. Eutaw St., Baltimore, Md. Class 1.

4845—David C. Goodyear, 222 West 72nd St., New York, N. Y. Will exchange 3A to 8x10, photographs of locomotives for photographs of old locomotives, N. Y. Central and Hudson River, R. R., preferably, or will purchase old N. Y. C. photos when not available in exchange, or copy and return same if loaned.

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

While the notices under this heading are strictly in the nature of information and news for the benefit of the reader, and are neither paid for nor actuated by our advertisers, we are compelled by the Postal Laws to mark them as follows:—Advertisement.

Obituary

On September 27, 1921, Mrs. Mary R. Lambert Fowzer, one of the old time members of San Francisco's photographic fraternity. Mrs. Fowzer had not enjoyed good health for some years and she passed away a victim to tuberculosis. Mrs. Fowzer was the wife of Jacob Fowzer, remembered among the old-timers as "Jake," he preceded his wife by two years, Jacob Fowzer's passing occurred February 17, 1920.

Photo Colors

Roehrig's Transparent Oil Photo Colors, guaranteed permanent, have been procurable at all photographic dealers for years. It is not a new thing, but a well known and dependable article of commerce.

With the growth in popularity of colored photographs there has arisen a greater demand than ever for these colors as they are appreciated for their purity, brilliance and permanency.

There is hardly a home today but has some colored photographs among the pictures, and there is hardly a family but has some member of it that enjoys coloring these pictures. Address all enquiries to the makers. Roehrig-Bielenberg Co., Inc., 155 Nevins Street, Brooklyn, New York.—Advertisement.

American Chemical Works

It was a pleasure to visit these works recently and they are located in San Francisco, also a point for gratification. These works have been considerably enlarged and the process of installing the new and up-to-date machinery was under way at the time we called.

W. J. Van Sicklen, Ph. D., the manager, showed the writer many things of interest contained in the new plant. The workmen were busy putting into position several glass lined metal containers for the manufacture of those chemicals essential to photographic needs.

To Mr. Van Sicklen, who is an expert chemist, we were indebted for his manufacture of the genuine Metol, an American product from domestic raw material. This meant a great deal to photographers, during the recent war especially.

The American Chemical Works' brand of Metol is non-poisonous, it has found great favor with the Moving Picture fraternity. Among the many users of this Company's products may be mentioned, The Famous Players, Lasky Corporation, Metro Pictures Corporation and Goldwin Pictures Corporation. Then there are a host of photographic studios, especially on this coast, who help in the consumption of these dependable chemicals.

Thermol, a newly synthesized developer, now replacing Hydroquinone, has been more recently introduced. It possesses rapid developing action, doing better work in half the time, it is claimed. Thermol's chief claim to superiority over Hydroquinone is, it will produce results at a temperature where Hydroquinone will cease to develop.

Hydroquinone, Sodium Carbonate, Sodium Sulphite, Potassium Alum and Acetic Acid are also produced in these works and they can always be depended on as being absolutely C. P. (chemically pure).—Advertisement.



Important to Photographers

Both amateur and professional photographers will be interested in the work produced by the Artograph Screen. We are enabled in this issue to present a cut of a portrait made by aid of the Artograph, it appears at the head of this column.

The Artograph people were among the very first to introduce a method whereby the sharp cutting lenses we already possess, may be made to yield those pleasingly soft results so popular today. It will be seen the invention is a money saver, and those who have used the contrivance speak highly of it.

The Company is so confident of the merits of their product, that they are willing to give a ten days trial on receipt of price, the money to be refunded if called upon. So far not a single Diffusing Screen has been returned. A sample photo may be secured for 15 cents. Address your enquiries to the Artograph Screen Co, 500 Fifth Avenue, New York. See announcement on another page.—Advertisement.

A Popular Annual

The American Annual of Photography for 1922 will shortly be on the market.

This well known publication is welcomed by a host of readers for it serves a very useful purpose. We have here in convenient form short articles on interesting and practical subjects. More than two hundred illustrations, twenty-four supplements in color add to the attractiveness of this new volume.

As usual there is the complete photographic formulary brought down to date. This of itself is a most valuable feature and readers will have in an available form tested formulas of all the most useful photographic processes. There is also much miscellaneous information on other topics which are likely to prove of great service during the ensuing twelve months.

The American Annual of Photography may be secured from your dealer in paper covers, \$1.75, or the library edition bound in cloth, \$2.50, postage extra.

The exclusive agents, George Murphy, Inc., 57 East Ninth Street, New York City. An advertisement appears on another page of this issue.—Advertisement.

Removal Notice

We wish to notify our readers of the following: We have outgrown our quarters at 120-122 West 31st Street, New York City, and have moved to 213-215 Water Street, New York City, where we will have larger quarters and be in a position to serve you to better advantage. Sagamore Chemical Co., Inc., American distributors "Agfa" photographic products.

An Album and Adhesive

The Housh Company, 7-17 E. Concord Street, Boston, Mass., has placed a new advertisement with us and the reader will find it on another page of this magazine.

The Housh Company draws your attention to their Supreme Quality Album. It is the last word in photographing album making and merits the attention of both the amateur and professional photographer as a most fitting place to display their pictures.

This album has a steel reinforced binding edge. The Housh Tube Album is fitted with a loose leaf pocket, a handy place to keep pictures until ready for mounting.

Amateur photographers must have experienced the abnormal development of the bump of acquisitiveness among their

NOTES AND COMMENTS

friends for pictures. "Let me take this one," pointing to a print, "you can so easily make another you know." Away goes the picture, but do you always replace it? That is what happens when we keep prints loose in a box. You owe it to yourself to forestall "these picture sharks." Get an album, it may as well be a good one as not. Why not get a Housh Album?

The next important point is a good adhesive to fasten the pictures down. Nobuc is the name of it, this also a product of the Housh Company, it is made with care and is the product of long experience. Nobuc, as its name implies, will not buckle, warp, wrinkle nor will it stain like paste, glue or mucilage does, it is an ideal mountant. Nobuc is a most useful preparation for the home writing table, an invaluable article in the business man's office, and the claim is, it stands at the head of all stickdom!—Advertisement.

D'Annunzio Furnishes Sensation at Lide

We hear from abroad that Déauville, France, "the most expensive resort in the world," and hitherto famed for its divorce from the usual conventions, has been out-Deauvilled by another resort, named Lide, situated near Venice, where among the features of the week was the following:

Gabriele d'Annunzio, poet, dramatist, novelist, warrior, "Saviour of Fiume," and Italy's foremost fire-brand, went in bathing clad in purple tights and mounted on a white horse equipped with golden horse-shoes, etc.

We are indebted for this piece of, shall we say literary gossip (?) to The Page Company, Boston, the publishers of Signor d'Annunzio's five romances: "The Child of Pleasure," "The Intruder," "The Triumph of Death," "The Maidens of the Rocks," "The Flame of Life."

A New Developer

Messrs. J. Hauff & Company announce through their American agent, G. Gennert, the production of a new developer, the remarkable qualities of which will undoubtedly secure for it immediate interest for its properties are entirely original and of the greatest value to photography.

Neol equalizes the greatest contrasts in lighting and permits of the greatest leeway in the time of exposure. It entirely

overcomes halation and in the hands of either the amateur or the advanced worker it will prove a boon. It simplifies photography for the beginner by reason of its property of correcting error in exposure and places in the hands of the advanced worker the opportunity for decidedly artistic results.

The commercial photographer will find that it entirely overcomes the difficulties of photographing glass, china, metal, statuary, etc. The home portrait worker will find it ideal for he can photograph his subject directly against the window with impunity, the portrait obtained being entirely free from halation.

Neol has another great advantage in that the most beautiful sepia tones on gas-light paper can be obtained by direct development.

Further particulars about this new developing agent can be obtained from G. Gennert, 24 East 13th Street, New York.—Advertisement.

Unfamiliar Hawaii

The members of the California Camera Club and their friends had the pleasure of attending a most interesting and instructive lecture given by Mr. Ray Jerome Baker, at Native Sons' Hall, on September 23rd.

The lecture, "Unfamiliar Hawaii," was illustrated with a magnificent set of lantern slides, all beautifully colored by Mrs. Baker, showing Californians some sights which were indeed quite "Unfamiliar" to us.

We were first introduced to some home scenes around the Baker place in Honolulu, and from there our able guide took us through the rice and sugar plantations of the surrounding country, explaining fully the methods employed at the Islands in these two industries. All the principal Island fruits and the radiantly colored flowers were brought to our notice, as well as the numerous native trees and plants. We then passed on through wonderful, densely vegetated glades, stopping to look at some bush or vine of particular interest. Thence on to some of the nearby Islands, viewing the leper colony, through the "Grand Canyon of Hawaii," and finally to the very brink of the vol-

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cano, being favored with many interesting views of this boiling, seething mass of lava and fire taken from numerous angles. After the slides Mr. Baker gave us a demonstration with moving pictures how a volcano looks in action, among these were many very effective night scenes. In conclusion Mr. Baker presented a series of interesting types of young manhood and womanhood in the Islands.

During a short intermission we enjoyed a musical treat by Mr. E. S. Rosenthal, whose songs were ably accompanied.

Mr. Leon F. Douglass also released his new film for the first time, showing us some very good "trick" photography, displaying his subjects in triplicate. Although all of us have seen a great many pictures wherein the object of interest appears twice, Mr. Douglass has gone one better than that and has his appear "Three in One."

Mr. Douglass will be remembered by his beautiful examples of moving picture photography in natural colors that he showed to the club some years ago.

University of California Extension Division

Now is the time to enroll for University Extension courses in Foreign Trade, Public Speaking and Business Correspondence, beginning in October.

Classes in these subjects will be held one evening a week, covering a period of from ten to fifteen weeks, meeting at centrally located points of the downtown district.

Foreign Trade classes, covering both the elementary and advanced problems in this field will be under the instruction of R. F. Whitehurst, manager of the export department of one of the largest corporations in the city, and will commence as follows: Advanced course, Tuesday, October 4th, Elementary course, Thursday, October 6th. Both classes will meet in room 238, Pacific Building, at 8 p. m.

The class in Public Speaking, a practical course especially designed for business men and women, will begin Monday, October 3rd, at 7 p. m. in room 983 Flood Building. Mrs. G. S. Farrington will be the instructor.

The San Francisco office of the Extension Division, 140 Kearny Street.

WITH THE CAMERA

Notes From the Illinois College of Photography, and the Bissell College of Photo-Engraving, Effingham, Ill.

Again an I. C. P. student has carried off honors. This time it is William H. Manahan of Hillsboro, N. H., who was Salon Winner at the New England Photographers' Association convention, held in Springfield, Mass. Mr. Manahan was formerly president of this association.

The Chinese Government is following the policy of sending certain of its young men to the United States, for instruction in different lines. Mr. Kao Shen of Peking, China, has recently enrolled with us, and is to study Photography at the I. C. P., his expenses being paid by his government.

We have heard that "music hath charms," and are glad that this winter we have a "charmer" in our midst. Mr. William W. Mason of Topeka, Kansas, has done considerable opera work and he will undoubtedly be given many opportunities to make use of his talent while here.

President L. H. Bissell is a member of the Effingham Rotary Club. Recently the Club had a picnic at Lake Kanagga, and it happened to be on his birthday. When the secret was learned, with due pomp and ceremony, he was presented with a "cold bottle" as a token of remembrance from his fellow Rotarians. (The bottle contained ice tea).

Mr. N. G. Devare of Bombay, India, who has been attending the I. C. P. for several months, just left for New York, from where he will go to Scotland for a visit, and then return to his home in India.

The College Camera Club each month has a display of work done at the club rooms. This plan not only creates a friendly rivalry between the student members, but it throws each one upon his own resources, as the instructors do not assist in work done at the Club.

The College was visited this past week by Miss Elizabeth Southworth of Memphis, Tenn. Her father will be remembered as the manufacturer of the Southworth Flash Machine.—Advertisement.

CAMERA CRAFT



SAN FRANCISCO
CALIFORNIA

Beginning with the issue of

JANUARY 1922

**this magazine will be enlarged
by an additional sixteen pages**

The subscription price will then be \$1.50 per year (fifteen cents per copy), with 25 cents added for Canadian and 50 cents for foreign postage.

Up to December 31, 1921

we will accept subscriptions at

\$1.00 per Year

for one or more years, Canadian and
foreign postage added when necessary

“Camera Craft’s” articles tell you how to get greater pleasure out of photography and how to make greater and more successful use of the photographic apparatus you already have.

Our advertising pages will keep you posted on the developments and the up-to-date apparatus on the market.

The sixteen added pages will give space for us to publish many new helps and ideas for the amateurs.

A commercial and portrait photographers’ department is to be included giving them the latest doings in their respective fields from all over the world.

**Send in your subscription or renewal NOW
and get the benefit of the present price**

CAMERA CRAFT PUBLISHING CO.

Claus Spreckels Bldg.

San Francisco

California



CAMERA CRAFT

A Photographic Monthly

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(Taken at night on a movie set)
By ARTHUR F. KALES

CAMERA



CRAFT

A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief
CLAUS SPRECKELS BLDG.

SAN FRANCISCO

EDGAR FELLOES,
Associate Editor
CALIFORNIA

VOL. XXVIII

NOVEMBER, 1921

No. 11

Oakland Photographic Salon

By Edgar Felloes



With Reproductions of Some of the Pictures

Go to Oakland! If you are interested in photography and live in San Francisco or nearby, you should visit the Salon in the Oakland Municipal Art Gallery at the Civic Auditorium of that city. It is a fine show.

The Annual Salon opened its doors to the public on October thirtieth and the exhibition will continue to November the twenty-sixth. These pictures will be viewed by thousands. If you are interested in camera work, try and be one of the crowd. You will learn something.

It was my privilege to visit this salon last week and though the pictures were not yet placed on the walls I was given every assistance which enabled me to form a good opinion of the pictorial treat in store for the many.

I wish here to express my appreciation of the help given me by William H. Clapp, Director of the Municipal Art Gallery, and Edwin S. Culver, the hard working Secretary of this Salon. These gentlemen arranged the photographs around a long table in sets, and all I had to do was to walk up one side and down the other, around and around. I had three hours of this and at the end of that time I went home to dream about pictures, I could see them in the dark.

My remarks can only touch such salient points as struck me forcibly, and if I pass over many works worthy of mention the exhibitors, at least, will have every reason to congratulate themselves they were among the elect.

CAMERA CRAFT

There were one hundred and twelve contributors to this Salon and they sent in seven hundred and thirty-eight pictures. Of these pictures, one hundred and seventy were selected by the Jury for exhibition, they represented the work of sixty-three photographers.

The Jury of selections consisted of the following gentlemen:

William H. Clapp, Director of the Municipal Art Gallery, Oakland, Calif.

John Paul Edwards, Pictorial Photographer, Sacramento, Calif.

J. Nilsen Laurvik, Director of the Palace of Fine Arts, San Francisco.

Roi Partridge, Etcher, Instructor in Art, Mills College, Oakland, Calif.

Edward Weston, Pictorial Photographer, Glendale, Calif.

The manner in which the pictures were judged was as follows: All the works submitted were given a number and each member of the jury voted on that number according to his judgment, and independent of the opinion of his confreres. When the votes were inspected, all pictures that had secured five votes, which was a unanimous opinion were accepted. All pictures that secured four favorable votes were also among the chosen. The balance of the prints receiving three votes and less were set apart for further inspection and discussion.

We are told to err is human, but these gentlemen could certainly not be accused of want of care or lack of desire to do the fair thing by everyone, for they devoted eight hours to their task.

The reason I hope all photographers will make it a point to view these pictures is, there never was a better opportunity to learn a lesson that is given by the splendid exhibit of two gentlemen, Dr. A. D. Chaffee of New York, and John Paul Edwards of Sacramento, Cal., our own Sacramento. These two exhibitors' works stand out, and they show in a preeminent degree the efforts of two masters in the two distinct schools of photography.

Mr. Edwards' exhibit is an example of what may be called pure photography. And Dr. Chaffee's pictures are made by what is known as the "controlled method," in this case it is bromoil. Let me suggest that the visitor, if a novice in photography, should first examine one and then the other exhibit; do it before the eye tires or gets confused with the many other excellent works. Then ask one's self, which is the better process; which tells the story better or which has the more appeal? The answer will probably be, you do not know, and I will join you by saying I do not know. But of this I am certain, and I have spoken of it before, process is really nothing, select that process that suits you best and do your utmost to develop the spiritual side, the intellectual side of your efforts.

A book should mean more than its cover; our friends are not valued by dress; process is the cover, the dress of the pictorial thought, it is never the thought nor as important.

In this exhibition you will find examples of the bizarre, the sensational and your approval is sought for the startling. But art belongs to good company, the soulful, the inspiring; we would live with such art but the burlesque we forget, when the curtain is down.

OAKLAND PHOTOGRAPHIC SALON



THE DIRECTORS' MEETING
(Oakland Salon, 1921)
By CLARENCE H. WHITE

CAMERA CRAFT

Are photographers getting happier or are they growing more sane? But a few years ago, five short years, in fact, we were treated to the so called art photograph, it was gloomy, always gloomy and we were tempted to think that photography was a side line to the coal and coke trade. In those pictures, the light was sad and the green fields were sadder and the trees always looked—nightmarish. Have you forgotten? I hope not. It was a joke. Never forget jokes, we need them.

Another change I notice is, a more rational use of the soft focus. Soft focus is good, but the cranks of soft focus are not now running as wild as formerly. In this exhibition their efforts appear chastened.

I have a list of many names gathered during the inspection, accompanied with notations for my use. I meant well, but the list is too long, the best I can do is to refer to some of the work. My selection of names is at random, there is no attempt at classification on merit.

Clarence H. White, N. Y., has six pictures in this salon and the outstanding work in this set is, "The Directors' Meeting." We have here a group of business men seated at a table, each one a portrait consummately handled, seldom will any one see a photographic group the equal of this one. A portrait of Mrs. Fox, quite Italian in style, is effective, and there is a pleasing quaintness in "The Four Poster."

John Paul Edwards, Sacramento, Cal., whose exhibit I have referred to, also has six pictures here. "A Vision of Progress," a beautiful thing, a couple of sky-scrapers in grey, with a foreground of roofs in black, a luminous sky with real light in it and the treatment as broad as can be. "Lower New York," the view of an archway, a striking bit. "Inbound From the Carribean" is very effective. "East River" is bold. "Lovely Morning," a glimpse of fairyland; "Venerable Cypress," a bold massing in low tones.

Anne Brigman, Oakland, Cal. Her picture of "Sanctuary" was accepted unanimously, also "Water Nixie," a pretty conceit. "The Storm Tree," very sensational and as a bystander remarked, very Brigmanesque.

Helen Macgregor, San Francisco. This artist's work greets you with a "shout," if you are not "deaf" you may be startled, but you will not pass her by. Take the character portrait of Hubert Stowitz, I am told it is good on account of "pattern," if you like it, all right, if you don't, blame Helen. "Natalia Carmen la Supervia," a striking piece of work. "The Jolly Roger," a still life, a toy boat on a silken sea, there is a pattern on this sea of silk—anything for a change! "Poster for Julius Caesar," this is good. "Miranda of the Balcony," this is more pattern, how do you like it? For my part I should prefer this attractive young lady—uncaged.

Dr. A. D. Chaffee, New York City, is certainly a tower of strength in bromoils and he has splendid examples here. "Cordes Tarn," "Gates of Rothenburg," "Port en Bessin, Normandy," and "Concarneau Finistere." Those photographers who are interested in this beautiful-process which has great possibilities in the hands of the expert, will here find something to admire and the work he beholds will serve as a standard for many, many future hours of effort, perhaps I should have said months.

OAKLAND PHOTOGRAPHIC SALON



MIRANDA OF THE BALCONY
(Oakland Salon, 1921)
By HELEN MACGREGOR

CAMERA CRAFT

Ernest Williams, Los Angeles, Cal. A very meritorious production is this picture of "Eucalypti," a bold massing of color, good cloud effect, a regular painter like landscape.

Margrethe Mather, Los Angeles. "Portrait of Robo de Richey," a decidedly clever, well balanced composition though quite theatrical. "Portrait of Judith," original and very pretty; this artist shows a great appreciation for the value of space and handles it admirably.

Edward Weston, Glendale, Cal. Mr. Weston's exhibit had not been delivered at the hall up to the time of my visit, this I regretted, it will also explain the reason there is no mention of this artist's work.

P. Douglas Anderson, San Francisco. There are two pictures by this contributor: "The Bridge," which was made in Golden Gate Park and was published in Camera Craft with other pictures by Mr. Anderson and "The Hill Top," which won first prize in the recent contest held by The Emporium of this City. This picture of "The Hill Top" will be remembered by most of our readers, we published a cut of it only last July, with other Emporium prize winners, a picture by the way that received a lot of criticism from visitors at the above mentioned exhibition, the general verdict appeared to be "there was nothing in it."

H. A. Latimer, Boston, Mass., has a multi-gum print, "Lake Como." The gum process is also classed among the controlled media, and is valued on that account. Mr. Latimer has produced a very creditable piece of work and the devotees of gum will find much to admire in this splendid specimen of the process.

Will H. Walker, Portland, Oregon. "Through the Fog," a familiar scene to most of us, an advancing team and a dray coming from nowhere, out of the fog, and in the near distance there is life, going apparently nowhere but in the fog. It seems to me this picture loses much by being in such a high key. It strikes one as white, the impression should be grey. Fog varies of course, but when making pictures of fog, take a white pocket handkerchief in the hand, glance at it a moment then gaze at the fog. The memory will keep us right in our values and will help us in our printing.

Louis A. Goetz, Berkeley, Cal., has on exhibition six prints among which are the very striking pictures "The End of the Rainbow," "The Spirit of the Alpine Storm" and "The Divine Afflatus," which some cruel bystander declared should have been titled "The Divine Inflatus," as part of the composition represented a girl blowing up a balloon.

G. H. S. Harding, Berkeley, has five pictures to his credit, "Mesa del Mar," "Low Tide," and "Chinese News" are, I think, his best.

Jane Reese, Dayton, Ohio, a late arrival, sent in a very attractive exhibit. I liked her picture of "Florindel in Search of Florinda," best. As an example of artistic balance this picture is well worthy of study. Whether the cleverly placed spot of black is Florindel searching, or artful Florinda seeking cover I can not say, but the balance is undoubtedly fine.

OAKLAND PHOTOGRAPHIC SALON



PORTRAIT OF JUDITH
(Oakland Salon, 1921)
By MARGRETHE MATHER

CAMERA CRAFT

W. H. Porterfield, Buffalo, New York, is also well represented. He comes to this Salon with some of his well known pictures and they are striking.

Thomas O. Sheckell, Salt Lake City, shows an appreciation for cloud effects. In both his pictures, "Sentinels of the Night" and "In the Path of the Storm," the skies play a very important part. The pictures are good in themselves, but the skies make the work distinctive. There is a decorative panel, "Swan," very good.

Imogene Cunningham Partridge, Oakland, Cal., contributes "Portrait of Nicolas Roerick." There is a fine quality in the flesh, and in this respect the picture is excellent, but the background is distressing, it utterly fails in its true object. I am told this picture is effective on account of pattern, I very much question this. When a portrait background suggests a note of interrogation it is on the wrong track, the mind of the spectator wanders, and if the background is particularly enigmatical, as is this one, the average person will forget the portrait in the effort to solve a riddle.

There are names of many exhibitors on my list, workers I would like to mention but space will not permit. To these successful ones Camera Craft extends heartiest congratulations and we also felicitate those who have given unstintingly their time, to make the Oakland Photographic Salon a success. And it is a success.



Real Sepia Prints

By W. H. Emmet



[Note—Some time ago we received from Mr. Emmet, prints to illustrate two of his articles, "Wild Game in Yellowstone" and "A Cure for Black Shadows," which appeared in the August and September numbers of Camera Craft. Among these photographs were some sepia prints, they were fine, not having the slightest tendency to that disagreeable yellow tone so prevalent among prints offered us as sepias.

We wrote to Mr. Emmet, asking him to give our readers the benefit of his experience in sepia print making and he generously responded by forwarding his formulas.

We wish to say here, we have invariably found the Professional photographer ready to help the Amateur over difficulties. It says much for a profession which holds so many men who are "big enough" to help the other fellow—disinterestedly.—E. F.]

OAKLAND PHOTOGRAPHIC SALON



LOWER NEW YORK
(Oakland Salon, 1921)
By JOHN PAUL EDWARDS

CAMERA CRAFT

The following communication is Mr. Emmet's reply:

I may state I have been experimenting on sepias for several years and I have secured the best results from these formulas.

In the first place the negative should be developed without fog, this is important, and I prefer Pyro developer.

Secondly, if the Hypo Alum bath is to be used, the prints should be so timed and developed that they will be of a slightly warm black color. My developer for this purpose has been:

Hot Water	40 ounces
Duramol	20 grains
Sodium Sulphite—anhydrous C. P.....	220 grains
Potassium Carbonate—powder C. P.	250 grains
Hydroquinone	60 grains

First, dissolve the Duramol in hot water, then add the Sulphite and Potassium Carbonate (previously well mixed) and lastly the Hydroquinone. This developer will produce a warm black print, also a neutral black by adding a little Potassium Bromide. This developer works slower than Metol-Quinol.

The Metol Hydroquinone will give good results if prepared the same way but substituting Sodium Carbonate for the Potassium Carbonate.

If the redevelopment process is to be used in place of the Hypo-Alum, the prints should be developed to a neutral black to secure the best results.

Here is another formula for sepias:

Hot Water	40 ounces
Ortol (Hauff's)	10 grains
Metol (Hauff's)	10 grains
Sodium Sulphite, anhydrous C. P.	220 grains
Sodium Carbonate, anhydrous C. P.	220 grains

Bromide of Potassium, according to results desired, the more bromide, warmer tone and vice versa. Note—It is the black and white prints that will give the sepia. Always use fresh developer and fresh fixing bath for best results. This formula is recommended for Cyko and Haloid papers.

Another formula I am using for Royal Velox Special, it is somewhat radical, it is here given as some reader may wish to try it out.

Water	10 ounces
Amidol	25 grains
Sodium Sulphite, anhydrous C. P.....	150 grains.
Iodide of Potassium, 40 drops of a 10 per cent solution. Use no bromide.	

Note—With this developer the exposure must be right and the development is complete in about twenty seconds.

We see too many photographs that are called sepia, they are not sepia at all, they are yellow. This failing is to be found in the work of many professional photographers also.

OAKLAND PHOTOGRAPH SALON



CORDES, TARN
(Oakland Salon, 1921)
By DR. A. D. CHAFFEE

OUR WILD FLOWERS

Kindly Contributed by Our Readers

XII. SNOW-PLANT

Sarcodes sanguinea.

This is one of the wonder plants of the California mountains. It is found in the Sierras from four to nine thousand feet elevation. In place of leaves it has overlapping flesh colored scales, at the base they are closely pressed to the stem but above they become looser and curl gracefully among the red bells. The bells are vivid red and the plant grows from six inches to over a foot high.

For a long time the plant was supposed to be a root parasite, but is now considered to be a fungi-like plant, drawing its nourishment from decaying matter.

The nature lover is well repaid for the usual long hike required to find this flower, but having once found it on a barren hillside, or at the base of a fir it will be a sight not easily forgotten.—J. M. Galvin.



Bromoil Process

By Kendall E. Robinson



With Illustrations by the Author

Why make a bromoil? Why go through the somewhat difficult and laborious process of substituting a pigment for the original silver image in a bromide print? The reasons usually given such as the permanence of the



STA. LUCIA, GATEWAY TO THE OLD CITY OF MANILA

CAMERA CRAFT

result and an almost unlimited choice of color apply equally to gum and carbon and the other pigment processes. A platinum print is permanent and for texture and delicacy of gradations leaves little to be desired. All of the photographic prints, however, with the exception of oil and bromoil, are largely the result of mechanics and chemistry. It is for this reason that a print is never quite as convincing as a painting. Every brush stroke on a painting represents study and shows the skill and judgment of the artist. We may choose our subject, use a pictorial lens, dodge our print and make a beautiful picture, but a picture, nevertheless, that is largely the result of the mechanics of the lens and plate and automatic in its development.



Bromide Print. The Harsh Whites Are Softened by the Half Tone,
Which Improves the Original.

Photography excels the other graphic arts in the accuracy of the reproduction. No painter could picture a face with the minute fidelity that the lens does. A method that will enable us to make use of the lens and plate to record the facts of a scene and then let us take these facts and to a certain extent modify them in making our picture, will be a distinct gain. This process must make no attempt to imitate any other art. It must make the most of its inherent possibilities and stand or fall on its own merits. If a little of the delicacy of a platinum is lost, this loss must be more than compensated by some gain.

In the oil and bromoil we have a picture that has most of the advantages of a photograph together with a little of the personal hand made quality of a painting. The stippling on of the ink with a brush, a little

BROMOIL PROCESS

more here, a little less there, a few bold strokes to give a rough texture to a stone wall or several gentle dabs to bring out a bit of detail, result in a hand made, individual print distinct from all others and one that the maker could not exactly duplicate did he so desire.

The appreciable thickness of pigment in the shadows covers the surface of the paper and adds to the strength and richness of the effect. This is emphasized by using a matt paper and luster ink. The shadows and highlights of a bromide have the same texture and lustre and it looks much the same when viewed from various angles and in different lights. A bromoil, like an oil painting, must be properly illuminated to be seen at its best.



The Whites in This Picture Are Greatly Improved by the Control Possible in This Process.

The making of a bromoil is not easy. The waste of some time and paper is to be expected while learning the process. However, once the various steps are mastered there need be no great degree of uncertainty. No attempt will be made to describe the process. It is fully covered in a number of books. A few hints, the result of two or three hundred trials, including failures and successful prints, may be of value. I have put them in outline form for emphasis because each step is important. For the best results, certainly for the easiest results, the right kind of a negative is as essential as the proper bleach. The whole process is like a chain with a number of links, and like any chain, if one link fails the result will be a failure.

CAMERA CRAFT

OUTLINE FOR MAKING A BROMOIL

1. The negative should be full of detail with fairly strong gradations where they are important. The bromoil process will not bring out detail where there is none in the original print, and there is a tendency to loose detail if too faintly rendered.

2. Correct exposure and full development in amidol.

3. Fix for twelve to fifteen minutes in plain hypo, one ounce of hypo to five ounces of water. Prolonged fixing is detrimental.

4. Wash and dry.

5. Bleach in the following:

A.

Copper sulphate	160 grains
Sodium chloride (common salt)	2 ounces
Water to	10 ounces

A drop or two of hydrochloric acid may be added to clear the solution.

B.

Potassium bichromate	40 grains
Water to	5 ounces

For an 8x10 print take water two and one-half ounces, (A) one and one-half ounces, and (B) three-eighths of an ounce. Use the bleach only once.

6. Wash until the bichromate stain is removed. Ten to fifteen minutes is usually sufficient.

7. Fix in the following until the safe edge becomes soft and slippery. Eight to fifteen minutes are usually required.

Hypo	1 ounce
Sodium sulphite	1½ ounce
Water to	10 ounces

8. Transfer without washing to

Hypo	1 ounce
Water	20 ounces

Leave the print in this bath for about five minutes moving it about frequently. The highlights will become more slippery and the relief greater in this bath.

9. Wash and dry.

10. Soak until experience has taught that the print is ready for inking. Ten to twenty minutes in water eighty to ninety degrees Fahrenheit will usually be sufficient.

The above outline is based on my experience with the double weight P. M. C. papers and portrait bromide lustre. Other papers can undoubtedly be used but may require different treatment. The illustrations were all made on P. M. C. No. 7.

BROMOIL PROCESS

Among the causes for the paper refusing to take ink properly I have found (1) unsuitable ink or brush, (2) the gelatine became softened too much in making the original print, (3) the bleach was not washed out



MANILA CATHEDRAL

before fixing, (4) too long in the fixing bath No. 7, (5) too long soaking or too warm water. Too great contrast is caused by not fixing the print long enough after bleaching with the result that too hot water is required in the final soaking.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

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Control Processes

Visitors to the Oakland Photographic Salon, will find examples of photographic work which may strike them as different in appearance to the familiar type of photographs the public is accustomed to. Gum prints and bromoils are decidedly different. There are some of both examples here, worthy of notice.

Of the few gum prints, the picture entitled "Lake Como," the work of H. A. Latimer, Boston, Mass., is a good example. This is produced by what is known as the multiple gum process. That means the paper is coated and printed upon more than once. By this method the worker builds up his photographic image with repeated coatings of sensitised gum, which acts as a vehicle for the pigment used. It will be seen by these methods, a considerable control of results are secured.

Another process to give the same control is that of bromoil. Just now this method is attracting considerable attention among pictorialists, and the probability is, its adoption will become more general among a certain class of workers. There are in this exhibition a fine collection of prints by Dr. Chaffee by this medium. Dr. Chaffee has probably done more to popularize the bromoil process, than any one man in the United States, and the masterly way in which he handles his medium can not fail to attract attention.

There is one important point not generally appreciated by photographers and that is, a control process is only of use to the man or woman who has had some art training. Without this training it would be by far better to confine one's self to what is known as straight photography. No one should for a moment think a straight photograph is not or can not be artistic. There are examples in this Salon to prove that a first-class photograph can be, and is, equal in everything that the hand can do by any after treatment.

Let it be here clearly understood we do not deprecate gums or bromoils, we greatly admire them, and in expert hands they are really fine, but we would warn the amateur against fooling himself and trying to fool others, that because it is gum or because it is bromoil, it must be more artistic than an honest-to-goodness photograph. It would be wiser to learn photography first, to thoroughly understand the making of a good negative and after, to acquaint ourselves with photographic printing methods. Learn just what pure photography will do, then after that, take up one of the control processes, if we feel the need of it.

EDITORIAL

We are not afraid to put down in black and white the following: After many years of experience in photography, we have yet to see a controlled print that can not be equaled by pure photography. We do not mean to say that a wild "button pusher" can do this, but there are those who can.

In these control processes enthusiasts lay too much stress on "texture," we mean mechanical texture, of course. Texture is all right, but it is not near of such importance as some think. We can suggest texture admirably. Some great artists have painted smoothly, others have laid on the pigment thick, but their work was never valued by smoothness or roughness. It is something wholly apart from the mechanical surface of their work, that has made the great live.

It seems to us, that the average photographer is too prone to be carried away by any new thing. He attaches so much importance to it, that he believes by adopting the latest, he surely has art by the tail.—E. F.

Variety, the Spice of Life

Every once in a while we receive something for the magazine from Cobb X. Shinn. Readers of Camera Craft may perhaps remember many of his funny pictures. Mr. Shinn is a humorous artist, besides being a humorous photographer. Our friend supplies "yards of funny stuff" to a syndicate for use in the daily and weekly papers. Thousands know of him, they have grinned at his pictures, these pictures are excellent and the captions are witty.

Some years ago Cobb X. Shinn became an amateur photographer, he worked as hard as any one of us, he had visions, all successful people have visions or they might not be successful, having nothing to aim at. Mr. Shinn worked and he worked, then his funny-bone worked and he began to make photographs, the likes of which no one had ever seen before. When asked by his friends why he did it, he replied, he didn't know why. But reader, you may believe it or not, it was his funny-bone getting away with him.

Editors and publishers began to take notice. Here was something quite new, and Mr. Shinn was started on a new road, which he travels today with his best friend, Funnybone.

Peanuts! What do you know about the pictorial possibilities of peanuts? Clothes-pins too, have a use other than the clothes-line, and to Mr. Shinn these things mean more than to the average person, they work for him, they earn for him real money as you will see in the Peanut Cartoons.

We are saving these cartoons for the December number of Camera Craft. At Christmas time, we all think of the children in an especial way and these pictures are intended to amuse the kiddies.—E. F.

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

A Method of Producing Reversed Dye Images

(Communication No. 97 from the Research Laboratory of the Eastman Kodak Company.)

In the course of a series of experiments on the effect of an acid hypo solution on various dye solutions and samples of tinted motion picture film, it was observed that on immersing certain samples of tinted film in the acid fixing solution, the dye was bleached out in the region of the silver image, while the high-lights remained unaffected; producing a result opposite to that of toning, namely, tinted high-lights and black and white shadows.

The possibilities of utilising the phenomenon in producing dye images were at once realized; and by simply removing the black silver image in a suitable solvent of silver such as Farmer's reducer, after bleaching as above, a reversed dye image was obtained; that is, starting with a positive silver image a negative dye image was obtained.

In the following experiments, images on motion picture film were used, though the methods are applicable to any gelatine silver image.

The effect under consideration was discovered when using methylene blue; but on testing a large number of other dyes it was found that dyes such as methylene green and, in general, dyes which are readily reduced to the leuco base can be used also.

It was found that two methods of procedure are possible as follows:

1. Bleach the image in a mixture of the dye and bleaching bath; or

2. First dye or tint the film, and then bleach.

1. The following acid hypo bleaching was used in the preliminary experiments:—

Acid Hardener

Alum	....	....	....	....	56	gms.
Sodium sulphite	....	....	....	....	56	gms.
Acetic acid, 28 per cent.	....	....	....	....	400	c.c.s.
Water to	....	....	....	....	1	litre.

For use:—

Hypo (25 per cent. solution)	....	....	....	....	100	vols.
Acid hardener	....	....	....	....	5	vols.

In order to determine the active bleaching agent in this bath, tests were made with mixtures of dye and the individual ingredients in various combinations, and it was found that hypo in combination with hydrogen ions is the active bleaching agent. Thus, the following mixtures are inactive:—

Hypo + Dye,
Dye + Acid,
Dye + Sodium bisulphite,

while on immersing an image in a mixture of dye+hypo+acetic acid or sodium bisulphite or acid hardener, good results are obtained.

The following bleaching bath was found to give the best results:—

Methylene blue	....	....	....	....	1	gm.
Hypo	....	....	....	....	5	gms.
Acid hardener	....	....	....	....	2.5	c.c.s.
Water to	....	....	....	....	100	c.c.s.

On immersing a positive image in this solution for three or four minutes the dye enters the high-lights, while the shadows remain clear, so that on washing and removing the silver image as described below a negative dye image is obtained.

2. By first tinting the film and then bleaching, stronger dye images were obtained as follows:—

Immerse the film for two or three minutes in the following bath and rinse:—

Methylene blue	1	gm.
Ammonia (concentrated)	0.1	c.c.
Water to	100	c.c.s.

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Now bleach in the following acid fixing bath until the shadows are black and free from dye:—

Hypo	.....	5 gms.
Acid hardener	.....	2.5 c.c.s.
Water to	.....	100 c.c.s.

After bleaching wash for about ten minutes in running water and remove the silver image as described below.

When using method 2, if the bleaching is prolonged beyond a certain point, the dye in the high-lights commences to bleach out until, on prolonged bleaching, all the dye disappears. On subsequently removing the silver so as to reverse the image, very peculiar line images are obtained if the bleaching is prolonged beyond the point when all the dye is bleached in the shadows. It is better to bleach in a weaker bath than in a strong one, since this permits of greater latitude in working. With the above formula from one to two minutes is an average bleaching time. Around normal room temperature (65 to 75 deg. F.) small changes in temperature have very little effect on the rate of bleaching.

After bleaching, the film should be washed about ten minutes in running water and immersed in the following bath of Farmer's reducer:—

Hypo	.....	2.5 gms.
Potassium ferricyanide	.....	1 gm.
Water to	.....	100 c.c.s.

After all the silver is removed, the film should be washed for five or ten minutes and dried.

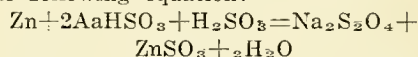
Other silver solvents such as a solution of iodine in potassium cyanide, iodine in thiourea, potassium ferricyanide, and ammonium thiocyanate can be used in place of the Farmer's reducer.

Theory of the Process

The action of the bleaching bath is apparently to reduce the dye to the colorless leuco base in the region of the silver image, the leuco base washing out of the gelatine more rapidly than the dye. This leaves a reversed dye image with black silver in the high-lights, so that on removing this silver a reversed dye image is obtained.

The precise action between silver and acid hypo in the presence of methylene blue is difficult to explain. It was at first

considered that the reaction between the silver image and the acid hypo is analogous to that between zinc and sodium bisulphite to produce zinc hydrosulphite and sodium hydrosulphite, as represented by the following equation:—



Sodium hydrosulphite + zinc sulphite. However, it was considered that silver is too noble a metal for the above reaction to occur in the absence of hypo, and this was confirmed by the following experiment:—

Finely divided metallic silver was heated for thirty minutes to boiling with a 25 per cent. solution of sodium bisulphite, to which was added 1 per cent. of acetic acid. On adding a little of the supernatant liquid to a solution of methylene blue, the dye was not decolorised, though repeating the experiment with the addition of hypo to the acid bisulphite the liquid decolorised the methylene blue at once, thus indicating that a powerful reducing agent was produced. A blank experiment which consisted in heating together hypo and acid bisulphite showed that this mixture alone does not reduce the dye except in presence of silver.

These experiments confirm the practical photographic results, namely, that hypo is necessary for the reaction between the silver and the acid bisulphite to occur. In the case of zinc, the presence of hypo is not necessary.

The exact chemical nature of the substance formed which reduces the dye has not been discovered. During bleaching of the tinted film in acid hypo the silver image turns yellowish brown, and its light-transmitting power is visibly increased. On treating the bleached image with a 30 per cent. hypo solution or 5 per cent. potassium cyanide some of the image is removed, leaving a residual image apparently of silver which is soluble only in silver solvents such as Farmer's reducer.

The above explanation raises the question as to whether any reaction takes place in the ordinary course of fixing out a silver image in an acid fixing bath in the absence of methylene blue. Certainly no visible change in the image occurs at normal temperatures in two or three minutes with no apparent change of color. Previous ex-

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periments have shown that silver dissolves slowly in a solution of hypo in the presence of air (the oxidiser), so that if methylene blue is regarded as the oxidiser the analogy in the case of the oxidation of silver by a mixture of acid hypo and methylene blue is complete.

A number of other bleaching baths can be used in place of the acid hypo, such as an acid solution of stannous chloride, acid amidol, and acid cerous nitrate.

Several difficulties were met with in producing good dye images as follows:—

1. *Bleeding of the Dye.*—After dyeing in a plain solution of the dye, rinsing and bleaching it was found that the dye readily washed out; in fact, almost as readily as the leuco base, so that weak dye images were obtained. Attempts were, therefore, made to mordant the dye as follows:—

A. By mordanting after dyeing by means of known mordants for basic dyes such as phosphotungstic acid and tannic acid. After dyeing, the film was given a short immersion in a 1 per cent. solution of phosphotungstic acid (which mordanted the dye almost completely) and then washed for ten minutes. This treatment resulted in patchy images, and it was not easy to subsequently remove the silver image in Farmer's reducer.

B. By mordanting after bleaching and washing and before removing the silver better results were obtained, though some streaks appeared after removing the silver as above.

C. The best results were obtained by adding ammonia to the dye bath in the first place, which increases the rate of dyeing and retards the rate of bleeding on washing.

2. *Re-oxidation of the Leuco Base.*—The leuco base of methylene blue is readily oxidised back again to the dye by suitable oxidising agents; and under certain conditions with certain bleaching baths and washing in water containing dissolved air, after bleaching and washing the leuco base is oxidised back to the dye so that the film assumes the tinted condition again. The addition of a trace of sodium bisulphite to the wash water tended to retard this oxidation.

Re-oxidation also occurs in the Farmer's reducer if all the leuco base has not been

washed out after bleaching, which explains the necessity for thorough washing after bleaching in the acid hypo.

Positive Dye Images.—During washing of the image after bleaching in the Farmer's reducer it was observed that in some instances, a positive image was obtained, that is, the leuco base was mordanted to the silver image and was re-oxidised to the dye while the dye in the high-lights washed out, thus producing a positive image from a positive.

The mordant in this case is silver ferrocyanide formed in the Farmer's reducer. A silver image when bleached in a mixture of ferricyanide and a trace of hypo is converted to silver ferrocyanide, which in a finely divided condition is a powerful mordant for basic dyes. If, therefore, after bleaching, the image is only slightly washed the leuco base remains, and on bleaching in the Farmer's reducer is mordanted to the silver ferrocyanide image, and is oxidised to the dye. On prolonged washing the methylene blue is washed out of the high-lights, leaving a positive dye image.

Toning and Tinting

Interesting effects are obtained by dyeing, bleaching, and washing, and, without removing the silver, immersing in a uranium toning bath or by dye toning the silver in the usual way. The result is that of a toned silver image with the high-lights tinted. This, of course, distinct from the usual toned and tinted effect, where the dye layer covers the entire film.

Line effects are produced by prolonging the bleaching in the acid hypo and subsequently toning the silver image as above. The effect is that of a toned silver image with line lighting and tinted high-lights.

Odd tinted effects are obtained by merely dyeing and bleaching and washing and prolonging the bleaching time a little above the normal.

Summary

Reversed dye images can be obtained by first dyeing a gelatine silver image in a dye which is capable of being reduced to the leuco base, which is more readily washed out of gelatine than the dye, and after tinting, bleaching in an ordinary acid hypo bath, washing, and subsequently removing the silver image in a solvent of

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silver such as Farmer's reducer. The excellence of the results depends largely on the correct time of bleaching and on the thoroughness of washing after bleaching. If the washing is not thorough, on immersing in the Farmer's reducer the leuco base is mordanted to the silver ferrocyanide formed, so that on prolonged washing the dye washes out of the high-lights, leaving a positive mordanted dye image.

The author is indebted to Mr. D. S. Mungillo for assistance in carrying out the various experiments.

J. I. CRABTREE.

Recent Improvements in the Carbro Process

Amongst the most remarkable advances which have been made in photographic printing processes in recent years must be placed Ozobrome, which, in its latest development, Carbro, gives the photographer the power of making what are to all intents and purposes carbon prints from bromide prints or enlargements by contact only. This removes an objection which has always hampered the carbon process itself, namely, the necessity of having a negative the full size of the carbon print to be made from it. The printing, too, in the case of carbon, has to be done by daylight, or, if by artificial light, with an outfit which very few photographers indeed are likely to have at their disposal.

Neither of these requirements are imposed upon the worker in carbro. He makes his prints or enlargements on bromide paper in the ordinary way, and then in any light, no dark room being required, he can make from each one of them several carbro prints and still retain uninjured the bromide original. Such a process only needs to be known better to be widely used. It allows of a wide choice of color, since the color of the carbro print may be any shade for which a tissue is procurable; and a long list of tissues is provided from which to select. There is also a range of transfer papers, rough or smooth, white or toned, to suit the requirements of each worker. Finally, the prints so made have that permanence which is deservedly associated with carbon prints; and the color is uniform throughout, from the lightest to the deepest tones.

As we recorded recently, carbro has been modified in the direction of simplicity by the use of certain formulae due to an amateur photographer, Mr. F. Garon. The materials for the process are supplied by the Autotype Company, of 74, New Oxford Street, London, W. C. 1, who also supply a leaflet with particulars of Mr. Garon's formulae, for those who prefer to make up the solutions for themselves, or ready-made solutions for those who choose to buy them in that form. The only requirements in the way of apparatus are dishes, a squeegee, and a smooth surface on which to do the squeegeeing.

In outline, the process consists of soaking a sheet of pigment paper in one solution and then in another. It is laid down upon the wet bromide print, squeegeed into contact with it, and left for fifteen minutes. After the lapse of that time the pigment paper is peeled off and squeegeed to a piece of transfer paper, and half an hour or so later is developed in warm water, just as a carbon print is developed. The bromide print is bleached during the process, but can be washed and redeveloped, either to be kept as it is, or to be the basis of further carbro prints.

Mr. Garon's formulae for the two baths allow the time of immersion for all tissues (except "red chalk") to be the same, and facilitate the control of the gradation of the carbro print by varying the time of immersion in the second bath. The first bath is made from a stock solution consisting of:

Potassium bichromate	1 ounce
Potassium ferricyanide	1 ounce
Potassium bromide	1 ounce
Water	20 ounces

For use one part of this is diluted with three times its bulk of water. The second bath is made from a stock solution, which contains:

Glacial acetic acid.....	1 ounce
Hydrochloric acid	1 ounce
Formaldehyde (40%)	22 ounces

For use this is diluted with twenty-three times its bulk of water. The first bath can be used repeatedly, but the second must be renewed frequently, as it is contaminated with the first carried into it in the tissue.

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The tissue is given three minutes in the first bath, is drained for a quarter of a minute, immersed for a quarter of a minute or more in the second, and is then ready for squeegeeing on the bromide print. The longer the time it is given in the second bath, the softer will be the result. The best time is a matter for trial, as it varies with different grades of bromide paper, but twenty-five seconds is suggested as very suitable for a preliminary trial.

The No-Daylight Carbro Process

The technical side of the "Carbro" process has already been described in this Journal, and full formulae and working directions are obtainable from the Autotype Company. But it may be of interest to put forward the results of some recent tests, and to discuss the utility of the process to the professional.

There is one point which must be driven home at the outset, and that is, that a Carbro print is actually a carbon print: not a "semi-carbon" or a "carbon-effect," but the real thing, which means that it allows of far greater range of color, base, and general effect than any other process or combination of processes.

The one and only essential difference in the making of a Carbro and of a regular carbon is the method of impressing the latent image. In the newer process daylight is dispensed with, and exactly the same effect is produced by squeegeeing the carbon tissue into contact with a bromide print in the presence of certain chemical solutions. From the point at which the tissue is stripped from the bromide print the two processes are the same, with the exception that, when using Carbro, there is no reversal, right for left, when using the single transfer process, and that the more roundabout double transfer is therefore unnecessary.

This method of "printing," if one may use the expression, has an important advantage, over and above that of the elimination of daylight. As any carbon printer knows, the one stumbling-block in the old process was uneven printing. Unless, indeed, nothing else was done, it was most difficult to make a set of, say, a dozen

carbon prints of exactly the same printing depth. There were at least three possible sources of error:—the Actinometer paper might vary, the tissue might be "stale," and there was always continued action after removal from the frame.

Now with Carbro these troubles do not exist. The strength and duration of immersion in the sensitising baths can be controlled, also the depth of the bromide print and the time of contact therewith, which are the factors affecting the printing. As a matter of routine, development will almost always take place at practically the same time after "stripping," so that continued action is unlikely to cause unevenness; as a matter of fact, my own experiments point to the fact that, if continued action is not entirely absent, it is, at any rate, greatly reduced.

Let us now examine the process from the point of view of the man who, seeing its advantages, wonders if it is a practicable workshop printing method.

Those to whom speed is the great requisite are not likely to desert bromides, but the man who feels that he wants something better, and yet must be able to rely on sending his prints out within a reasonable time, has every reason to give Carbro a fair trial. That it will more than fulfill his expectations I do not doubt.

The elimination of daylight printing means that the process becomes independent of weather conditions. In other words, you can absolutely rely on your output being regular. It does not mean that Carbro is a speed process—it cannot compare with bromide for this—but the average studio of the better class will not mind a comparatively slow output, providing it is a regular one. As a general rule, I suppose one bromide print will be used for each order of, say, half a dozen "Carbros," but in cases of emergency it would be easy enough to make half a dozen bromides and take all the Carbros through at one time. If a single bromide is to be used, it will be found that some two hours will be necessary between stripping one Carbro from it and squeegeeing the next.—Arthur G. Willis, in *British Journal of Photography*.

(Continued in December Issue.)

THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

Concerning Bromide Enlargements

Camera Craft for last month contained a description of a Portable Enlarging Apparatus. There are some useful additions to the outfit which I think the author probably overlooked.

The first is the "orange cap." This consists of nothing more than an old lens cap with most of the top cut out and a piece of orange glass substituted or a piece of celluloid of similar color may be used in the place of the glass. The object of this lens cap, let me point out to the new recruit is, to enable one to readily place the bromide paper in its proper position on the easel. We first determine the size of the enlargement on the easel which is permanently covered with white paper.

This is the method by which it is done: Switch on the light in the lantern; then place the negative in the kit or negative carrier. We remove the orange cap from the lens and by sliding the easel to or from the camera we will find a projected image on the white paper covered easel. By racking our lens back and forth we are able to get our picture in focus. If when the picture is in focus we find our projected image too small, all we need do is to remove the easel a little further back from the negative and camera, to secure the approximate size and re-focus the negative. When the size of the picture has been secured and the focusing has been satisfactorily done, we replace the orange cap; this will now shut out all the white light falling on the easel. If we did not observe this caution, but were to proceed placing our bromide paper in place, we should naturally fog or destroy our sensitive paper by the white light falling upon it, hence the use of the orange glass cap. With the cap in place, we adjust our sensi-

tive paper in its proper position on the easel, in comfort and safety.

All this having been done the orange cap is removed and the exposure made by the white light, for the proper time.

The next little contrivance that will be found advantageous are four pieces of stout sheet brass, cut about three-quarters of an inch wide and bent into a bow shape, to form a spring. One each of these springs should be located at the four corners of the easel and screwed down there, at its outer end. This will enable the worker to hold the bromide paper in place during the exposure. This addition is not a necessity, merely a convenience, thumb tacks may be substituted for it.

Another exceedingly useful addition to the easel is to devise a suitable method of turning or tilting the easel toward the camera. We are familiar with the distortion of buildings in hand camera work; we know that by pointing the lens upwards we secure pictures of buildings that taper toward the top. This unsightly defect may be remedied by tilting the easel toward the enlarged part of the picture, or increasing the distance in the opposite direction if we desire to enlarge the diminished portion of our view.

The distortion by curvature which is often apparent in work with single lenses, especially in architectural subjects and toward the margin of the plate may be corrected by the simple expedient of using the same lens reversed for making our projection. This will correct the error.

We must not forget the shield for holding back certain portions of our print during exposure. This may consist of a disk of dark paper pasted near the end of a strip of glass. Our glass strip may be about twelve inches long and two inches wide. Some workers prefer a wire to sup-

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port the mask. Whichever method is used the mask or shield has to be kept moving so that an impression of the glass or wire may not appear on the bromide itself. This kind of mask is used to hold back certain portions of the print which are located within the picture. For holding back marginal portions of the print pieces of cardboard roughly torn to various shapes are useful.

Photography in Wintertime

Do not give up your photographic activities in winter. Keep your camera working. It is not necessary to have bright sunlight to secure a good negative, even with a snapshot. Of course the winter days are frequently dull days, our light is not near as actinic as in the summer season, but let us remember a few points and we can succeed well.

Make it a rule if the light is dull to keep at some distance from your subject if out for snapshots. Let us suppose your lens works at F-7.7 or F-6.3, these are the popular lenses for hand cameras. Work with your lens wide open and set your shutter for 1/25th of a second. Avoid close up work unless provided with a very rapid lens. Views will give the most satisfactory results because one works at a considerable distance away, and raise your camera sufficiently to avoid the near foreground. We are far less likely to undertime in proportion to our increase of distance between the camera and the nearest object, also, we will have no trouble in focusing.

Fog and mist pictures, if properly done, are often most effective, while snow scenes are so familiar we need not dwell upon them. If it has been your custom to regard winter as not a proper season for photography, suppose you break your custom and try something in the line of views. We are not out for sharp detail, neither shall we get the snappy negatives of summer, but we can secure just as artistic pictures. If we decide to take a light tripod along we can secure almost anything with a one second exposure.

Be watchful for effects in lighting and if striking do not let the picture escape you. The picture itself may be flat and grey but a little patch of light in the sky will often give a very beautiful effect.

We should certainly develop our own plates or films if interested in photography. It is too much to expect first class results when our negatives are turned over to others to be developed in a mechanical way, as these negatives may need special treatment which they can not get if placed in a tank with a hundred or so other films.

The average amateur photographer in developing a winter scene may argue the point to himself in this fashion: "Now that negative was made in a dull light, it is therefore a hundred to one the negative was undertimed, therefore I need a fresh, strong developer to bring out and make the most of the detail." This system of reasoning appears pretty good, it seems so rational on the face of it. Strange to say, however, if we work along these lines we will most probably fail, that is, we are not likely to get out all that is in the negative. What we need to do, is the opposite.

For developer, my preference is pyro, but any developer appears satisfactory so long as we understand it. My method in this kind of work is to use a very dilute developer, and I prefer the tray to the tank unless I should have many exposures of a similar character, in which case I favor the tank.

I have no excuse to offer for giving a formula for developer, the probability is the one you may be familiar with is every bit as good. It would be better to describe a method of developing and to give the reasons therefor. If we take a film or plate exposed on a winter scene, which is grey and flat in color, but which shows a break in the clouds and bright light there and develop it in the usual way we will have a harsh effect in that quarter. If that patch of light fails to print when the rest of the picture is ready the tone in that picture is destroyed. What we should endeavor to do is to reduce the contrast in that negative. The active part of your developer (it would be the pyro in my case) would need reducing, because of this simple rule the more pyro the more contrast, our subject on account of the sky having perhaps too much contrast calls for a modified developer. It is always an advantage in undertimed exposures to develop with a weak developer.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

Hemlock, O., Oct. 4th, 1921.

Editors Camera Craft.

Dear Sirs:—The No. 6 Post Card Album was sent enroute October 1st, comprising a number of 72 photographs, many in various tones, and artistically colored. Eleven of its contributors yet have prints for one or more albums placed in advance with the director; all others should do likewise, and be on the contributors' route list of each semi-annual album.

The East is fairly represented in these albums; also members from the West; but kindly urge the members from the North and Southern States to contribute about six prints annually, and receive these novel and pictorial publications. Send your contributions for the No. 7 album during the next few months; it will be issued and routed April 1st, 1922.

Albums No. 4 and 5 are traveling nicely, from one member to another; the latter album has just nigh finished its route with the contributing members, and from the hands of Mr. A. E. Davies, will resume its travel on a subsequent route list, to other recipients thereof.

The list of recipients of these albums is constantly increasing; the mailing rates of one pound parcel post, permits all members to receive them regularly; with a few more contributing participants, we will soon be enabled to issue these, with but one or two prints therein from each member.

Fraternally yours, in the photo craft,
JOHN BIESEMAN,
Album Director.

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

A. E. Davies, General Secretary, 1327 Grove St., Berkeley, Calif.

If there is no officer in your State, address the General Secretary.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

John Bieseeman, Director Post Card Division, Hemlock, Ohio.

Lovie Meredith, Director Steroscopic Division, Rupperttown, Tenn.

A. E. Davies, Director Lantern Slide Division, 1327 Grove St., Berkeley, Calif.

NEW MEMBERS

5026—Lester L. Sanks, 261 Broadway, New York, New York.

2½x2½ and 2½x4¼ D. I. P. Process of scenery and views of general interest; for anything of interest. Class 1.

5027—I. L. Mellott, Lock Box 256, Atkinson, Ill. Class 2.

5028—S. A. Watkinson, O'Brien Mine, Gowganda, Ont., Canada. Class 3.

5029—W. L. Haemer, 104 E. 25th St., New York, New York.

5x7 and 6½x8½ Azo, Cyko and Mimosa of general subjects; for post cards. I desire to exchange only post cards. Class 1.

5030—Luther L. Bruker, P. S. C., Box 86, Davenport, Iowa. Class 2.

5031—H. E. Miles, Lock Box 288, Sherman, Texas.

Vest pocket to post card and enlargements. Azo, Velox and others, of almost anything of interest, figure study, marine, portraits, etc.; for anything of interest, or out of ordinary, figure study, child nudes, stereos, etc. Class 1.

5032—Victor D. Elmore, 9 Putnam St., Danvers, Mass.

Anything up to 8x10, Artura of landscapes, genre portrait; for Eastern landscapes, nude studies, fancy costume and character work. Class 1.

5033—Lester E. Tesreau, Box 232, Leadwood, Mo.

2½x3¼ to 4x5 Azo, "Developing Out" of landscapes and views of interesting places; for the same from other parts of the world. Class 1.

RENEWALS

53X—Edward Heintl, Leopold, Wis.

4240—John Stimpel, Alexander Hamilton Inst., 13 Astor Place, New York City.

Class 2.

4291—John R. Palmer, Franklin, N. Y.

Class 2.

4419—Rev. C. Lilie, Route 1, Van Meter, Iowa.

Class 2.

4591—B. W. Moulton, Quincy, Ill.

4729—J. W. Read, 3401 Parnell Ave., Chicago, Ill.

Stereoscopic and 5x7 Azo of South Africa, natives, scenery, historical buildings and places, as well as the finest underground mining stereos in the world; I want only good work, with little scenery, am especially interested in foreign views. Will be glad to exchange lantern slides. Class 1.

4545—David C. Goodyear, 222 W. 72nd St., New York, New York.

3A to 8x10 of N. Y. Central R. R. locomotive photographs; for N. Y. C., prior to 1890, old engines, any American road, smoke-effect train photos. I desire to exchange only locomotive photographs. Class 1.

4889—Y. Takase, P. O. Box 37, Petersburg, Alaska. Class 2.

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

While the notices under this heading are strictly in the nature of information and news for the benefit of the reader, and are neither paid for nor actuated by our advertisers, we are compelled by the Postal Laws to mark them as follows:—Advertisement.

Reported by Wm. Wolff

Harry Willis, formerly Graflex man, is now managing the Long Beach store of Winstead Bros. Harry looks as youthful as he did in the olden days.

Mrs. Paffrath of Reno, expects to drive from her State to Southern California and back by way of San Francisco, before the holiday season sets in. She will be accompanied by Alma Tilman, her able assistant.

Scott Snowden of Modesto, spent a few days in this city recently.

Mr. Schwarz of the Mile High Photo Co., Denver, called on the writer while in San Francisco. Mr. Schwarz is now in Southern California, but will return to Denver shortly.

Frank Robinson of Merced was a recent caller.

H. R. Fitch of the San Diego Kodak Dealers is back on the job after a three months' illness. Here's hoping he's never sick again.

Saw Dave Mullender, the popular E. K. demonstrator, in San Diego the first week in October. Dave is looking just fine.

The writer had a long letter from Franz R. N. Anderson and wife. Mr. and Mrs. Anderson have a fine studio at Brainerd, Minnesota. They were formerly in San Francisco. Mrs. Anderson was with Hirsch & Kaye, while Franz was working for the Government.

University of California

The University of California Extension Division announces classes in Commercial Art, Public Speaking and Salesmanship beginning in San Francisco within the next few weeks.

The Commercial Art course under the instruction of Otis Shepard, of one of the large outdoor advertising firms will begin Tuesday evening, November 22d, at 7 o'clock at the Polytechnic High School, First Avenue and Frederick Street. The class will meet once a week for fifteen weeks.

Public Speaking will be taught in a class by Miss Jean C. Macmillan, beginning Tuesday evening, November 22d, at 7:30 o'clock, in room 983 Flood Building. Professor Dwight E. Watkins will conduct a class in the same subject beginning Friday evening, November 25th, at 7:15 o'clock in room 257 Pacific Building. Both courses will consist of ten meetings.

A course in Salesmanship for persons having experience in the field is scheduled to begin Thursday evening, December 1st, at 7 o'clock, in Room 237 Merchants Exchange Building. Mervyn R. Dowd will be the instructor.

Advanced registration for these classes may be made at one of the San Francisco Offices of the Extension Division, 140 Kearny Street, or 264 Pacific Building.

Kemite

"Kemite" is a product manufactured only by the American Chemical Works, San Francisco, and specifically adapted for the removal of the silver contained in exhausted hypo solutions.

"Kemite" is not sodium sulphide, neither is it a mixture containing sodium sulphide. It has very decided advantages over the latter in that it precipitates from the exhausted hypo the silver in the metallic state completely and quickly, which can be refined at far less expense and with twenty

NOTES AND COMMENTS

per cent less loss than any method using sodium sulphide. Moreover, it has the advantage of economy, as one pound will produce as much silver as two pounds of sodium sulphide, and do the work quicker and cleaner. When properly used one pound will save in the refining process approximately 80 cents in silver that would be lost if sodium sulphide were used—which is much more than the original cost of the “Kemite.”

The procedure of use is the same regardless of the nature of the hypo bath, but the amount used per gallon will depend on whether the bath is from film and plates or from paper.

If the exhausted hypo is from plates or film an amount equal to one ounce per gallon is quickly and thoroughly stirred into the hypo, after which the precipitate is allowed to settle, filtered off and dried for the refiner. Another way of removing the precipitate is to decant off the remaining liquid, collect and dry the residue.

If the exhausted hypo is from paper, an amount of “Kemite” equal to one-half an ounce per gallon is stirred into the hypo after which treatment proceeds as in the case of plates or film.—Advertisement.

Pivotal Points in Photography

Here is a booklet which indeed robs photography of its terrors. In its 28 pages the beginner is told—and not only told but shown quite plainly—how easy it is to make good photographs.

Experts will find plenty to interest them in this little publication. For those who are thinking of taking up photography or for those who are meeting with difficulties it is a little gold mine of sound information.

The pivotal points of photography are rightly described as exposure, development, printing, and a chapter is devoted to each; but in a fourth and concluding chapter such points as intensification, reduction, and toning in sepia, blue, green, etc., are dealt with. In every case, whether the point is a pivotal one or not, there is a pleasing and unusual certainty and directness about the instructions. So many books contain such a diversity of methods that the reader is tossed hither and thither on a sea of doubt as to which to adopt.

In “Pivotal Points” there is no ambiguity. It is a case of a man who knows saying, “Do it this way and you cannot fail.”

Because it is issued by Burroughs Wellcome & Co., who supply the chemicals essential for the methods indicated, the booklet is obtainable gratis. Precision of instruction and method therefore here go hand in hand with precision in material, for nowhere can you find anything quite so precise and accurate as “Tabloid” Photographic Chemicals.

The handsome cover, in green facsimile photogravure, shows Sir Ernest Shackleton’s ship “Endurance” firmly fixed in the ice of the South Polar Regions. It is an example of negative and print developed with “Rytol” and toned with “Tabloid” Green Toner, and reminds us of the fact that these products appear to be unharmed by climate whether arctic or tropical.

Any photographer mentioning this journal and sending a postcard to Burroughs Wellcome & Co., 18-20 East Forty-first street, New York City, U. S. A., can obtain a copy of “Pivotal Points” gratis and post free.—Advertisement.

Haloid Portraya

Photographic papers have reached a wonderful state of perfection these days, and it is not to be wondered at in view of the experience and infinite care bestowed on their manufacture.

The paper stock itself which plays such an important part in the appearance of the finished picture, receives the most careful attention from the expert manufacturer, and not only the purity of the product must be considered but the surface of the paper must conform to certain essential requirements.

The Haloid Company fully appreciative of all these facts, uses stock of foreign make, the output of factories of years of established reputation as superior to all others.

Haloid Portraya has back of it fifteen years’ experience in the exclusive manufacture of photo papers of quality. It embodies all the Haloid Company has learned by experience and has discovered by research, to make up a portrait paper fully meeting present day needs.

CAMERA CRAFT

This Haloid product has a great deal to recommend it, points which the professional photographer is recognizing in steadily increasing numbers. It is warm of tone in its normal black; it is brown and not yellow in its sepias.

This paper is "slow" in speed, and has on that account a wonderful latitude in exposure and development. Its shadows do not block up and the intervening half tones right up to the high light are rendered in an exquisite way.

Every advantage to be gained from experience and exact knowledge is to be found in Haloid Portraya; the use of it leads to portraits of distinction.

Professional photographers will be interested in the new discount card, they should send for it. Look up the Haloid Co.'s announcement on another page of this issue.—Advertisement.

Christmas Presents

There is one thing that everybody appreciates, that is a Christmas present. It need not be expensive. Your friends would rather not receive expensive presents, what they would like is a little reminder that they are not forgotten. Cards have long filled this need, but there is something far ahead of cards, it is a photograph of one's own making. Pretty views collected during the summer. Something you can write about. And for friends especially dear to us, why not have these mementos colored. The coloring need not be done by yourself, there are some who make a specialty of this line of work, it takes skill to do it properly. The little present you send will have an added attraction.

E. B. Harris, 4018 Prairie Avenue, Chicago, Ill., is a specialist in this line of work. He will undertake the coloring of your pictures from the little postcard to larger sized prints, and you can have them done in pastel, water or oil colors.

We have just received from Mr. Harris a beautiful little pastel in colors, of an illustration that recently appeared in Camera Craft. We are very pleased with it, being done in pastel it has the softness, the bloom of a peach, it is so delicate. You will find this artist's advertisement among the smaller notices on another page. Do

not leave your orders to the last moment, as good work takes time.—Advertisement.

Neco Precipitant

The days for economy are always with us. True economy does not mean stinting one's self, it means the elimination of waste. Why waste anything? We only have to work harder to make up for such waste. If we eliminate waste there is a decided gain, all profit, and that profit may be truly called the finest velvet and a yard wide.

In the old days of photography they saved their waste, but the modern photographer has somehow grown careless about such things. This was bad, instead of advancing he was retrograding on this point, but there is some excuse. The photographer it seems was waiting for modern methods of saving; he always knew that a lot of silver was thrown away with his old hypo baths, he knew that, but just how much went to the bad he had not the slightest conception.

Many of our readers would not dream that when they fix a negative two-thirds of the silver in that negative is dissolved out by the hypo, and that silver will all be wasted if we dump our old hypo in the sink. This should not be.

The National Engineering and Refining Co., Rapid City, South Dakota, not only refine photographic wastes, but they have a special preparation, known as Neco, to collect that waste. Five pounds of Neco will recover all the silver in 160 gallons of worn out hypo baths at one and one-fourth cents per gallon. A sample of this Neco will be sent on request. For further particulars read the announcement of the National Engineering & Refining Co., which will be found in this magazine.—Advertisement.

A Shadow Meter

One of the earliest lessons we learn in photography is to expose for our shadows. The very fact that so many negatives are undertimed is proof that the shadows lacked time in the exposure. The lights invariably take care of themselves, not so with the shadows. It is up to us to take care of the shadows if we hope to secure good printable negatives. There is no getting

NOTES AND COMMENT

away from this, the shadows must be timed right.

This palpable fact, led to the invention of the McMurtry Actinic Photo Meter. This is a meter that measures shadows, the very thing you expose for in all branches of photography.

The Photo Meter is raised to the right eye, not quite touching the forehead and the subject is viewed through the eyepiece. The disk is turned and the subject gradually darkens until the detail in the important shadows is almost blotted out, but still barely visible. The meter is now set for direct reading. No matter what plate or film or camera stop you are using, this photo meter reads directly in seconds or fractions thereof, no mental or other calculations are necessary.

The advertisement of McMurtry & Company will be seen on another page of this magazine, look it up, you will be surprised at the cost of this handy meter.—Advertisement.

Saving Money

We never know just what we want when starting out on a new hobby. Probably not one of us continues working with the same camera with which our initial photographic attempts were made. With our increasing knowledge we desire more perfect apparatus, and perhaps we hesitate to invest on account of cost. Is this wise? Would it not be better to look around for a first class second hand outfit?

There is an enormous business done these days in used cameras and lenses. These are not things that wear out, hence real bargains may be secured from the reliable dealer, it is to his interest to give you the most in return for your money.

If you are in need of any photographic apparatus, whether you are amateur or professional, you should secure Cohen's big new illustrated catalogue. Abe says: "Write for your copy today," and the probability is you will find just what you are looking for, be it foreign or of domestic manufacture. Address your enquiry to Abe Cohen's Exchange, 113 Park Row, New York. In the advertising section, you will find Abe Cohen's announcement, read it for further particulars.—Advertisement.

Another "Glad" Book

The Page Company, Boston, announce for immediate publication a new novel—"The Triumph of Virginia Dale." Another "Glad" Book—which marks the advent of a hitherto unknown writer of fiction—Mr. John Francis, Jr., a gentleman from Washington, D. C. Virginia Dale, the heroine of this new "Glad" Book, is the most natural young person imaginable, and as she progresses in her mission of "brightening up the corner" she builds for her own future one of the most beautiful characters fiction has ever claimed. "The Triumph of Virginia Dale" is essentially a "character story," but this does not detract from the plot what it just seems to get in the natural course of things, for, as a venerable reader once aptly remarked: "When story folk act natural, we ain't going to forgit 'em."

The Lens Man

Perhaps you do not know Dunn, he is the lens man. You can ask him any questions you would like to know about your lens or about any lens you might wish to invest in, but Mr. Dunn can give you the correct answer.

Hathaway Dunn makes a specialty of lenses which he sells at the right price. He publishes no list as his stock is changing daily, but if you want a lens or reliable information about lenses, this man Dunn can give it to you. Send your enquiries to Hathaway Dunn, Inc., 22 East 30th Street, New York. An announcement is carried on another page bearing the caption Dunn—The Lens Man.—Advertisement.

At the Same Price

We recently noticed that the Milner Light Gauge has a little protecting home for itself in the shape of a strong leatherette case. There was nothing to get out of order in this wonderfully simple and efficient gauge, but all things wear with time even metal, (with which this gauge is made) hence the adoption of this little protector.

We asked Mr. Milner when he contemplated this addition whether he intended raising the price? His reply was, "not on your life, I do not need to, the steady demand for the Milner Light Gauge will take

CAMERA CRAFT

care of that, quantity production counts. This little extra is for neatness as well as an added protection, my light gauge will last for years without it, now the user must lose the instrument if it will never wear out. By the way, if it is lost I bet you the owner buys another."

There have been thousands of this light gauge sold and they are still selling. All photographers of experience realize, if the exposure is right most photographic troubles vanish.

The Milner Light Gauge may be purchased from photographic dealers or direct from the inventor and patentee, G. M. Milner, 525 Market Street, San Francisco, Cal. An announcement in the advertising section will give further information.—Advertisement.

The Sieve, or Revelations of the Man Mill

Being the Truth About American Immigration by Feri Felix Weiss, for Thirteen Years U. S. Immigrant and Chinese Inspector at the Port of Boston, and During the War Special Agent of the Bureau of Investigation, U. S. Department of Justice.

There is occasion, in these days, for the gathering of facts in regard to the work-

ings of our immigration laws. These facts are to be secured either by personal observation, or by the testimony of those whose experience has qualified them to speak as experts. Among these latter, no one has come in closer contact with the "strangers at our gate" than Mr. Feri Felix Weiss, who was an immigrant himself, and is widely known as a lecturer, linguist and authority on America's vital problem of immigration.

In "The Sieve" he proves a master of his subject, and relates with absorbing interest and keen insight his immigration experiences—a truth stranger than fiction, with thrills of pathos and smiles of comedy. His timely revelations of the man mill give the American people the first authentic glimpse of the real facts and secret forces behind our immigration problem, and to learn the details of examination, exclusion and deportation of undesirable aliens at our ports of entry and along the border from one who was in daily contact with the strangers at our gate is the rare opportunity offered in this inspiring book.

With many illustrations, poster jacket, cloth 12 mo, \$2.50. The Page Company.



Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, for October 1, 1921, of "Camera Craft," published monthly at San Francisco, State of California, County of San Francisco.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared I. M. Reed, who having been duly sworn according to law, deposes and says that she is the Business Manager of the "Camera Craft" and that the following is to the best of her knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

Publisher, Camera Craft Publishing Company, San Francisco, California; Editors are Dr. H. D'Arcy Power and Edgar Felloes, both of San Francisco, California; Business Manager, I. M. Reed, San Francisco, California. That the owners are Camera Craft Publishing Company, San Francisco, California; Harriette E. Clute, Trustee, Mountain View, California; Romaine F. Clute and Clifford H. Clute, Beneficiaries, Mountain View, California.

That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent

or more of total amount of bonds, mortgages, or other securities are none.

That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest, direct or indirect, in the said stock, bonds, or other securities than as so stated by him.

(Signed) I. M. REED, Business Manager.

Sworn and subscribed before me this twenty-eighth day of September, 1921.

SID J. PALMER, Notary Public,
in and for the City and County of San Francisco,
State of California. My commission expires December thirty-first, 1922.

CAMERA CRAFT



SAN FRANCISCO
CALIFORNIA

Beginning with the issue of

JANUARY 1922

**this magazine will be enlarged
by an additional sixteen pages**

The subscription price will then be \$1.50 per year (fifteen cents per copy), with 25 cents added for Canadian and 50 cents for foreign postage.

Up to December 31, 1921

we will accept subscriptions at

\$1.00 per Year

for one or more years, Canadian and
foreign postage added when necessary

“Camera Craft’s” articles tell you how to get greater pleasure out of photography and how to make greater and more successful use of the photographic apparatus you already have.

Our advertising pages will keep you posted on the developments and the up-to-date apparatus on the market.

The sixteen added pages will give space for us to publish many new helps and ideas for the amateurs.

A commercial and portrait photographers’ department is to be included giving them the latest doings in their respective fields from all over the world.

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SAN FRANCISCO, CAL.



EUCALYPTUS
(London Salon, 1921)
By N. P. MOERDYKE

CAMERA



CRAFT

A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief

EDGAR FELLOES,
Associate Editor

CLAUS SPRECKELS BLDG.

SAN FRANCISCO

CALIFORNIA

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Frederick & Nelson Second Annual Exhibition Pictorial Photography—Seattle



With Reproductions of Some of the Pictures

It seems to have remained for one of Seattle's best-known commercial institutions to give to its people their first broad glimpse of the progress latterly made in the development of the pictorial side of photography.

Some years ago, Seattle boasted a camera club, which flourished a while and died. Whether its demise can be, in orthodox fashion, blamed to the war, matters little, but since the funeral, Seattle has had little opportunity to keep in actual touch with the things happening in the outside world so far as matters photographic were concerned. Occasionally a traveling show sponsored by a supply house reminded one that there was progress, and, of course, there were always the numerous excellent magazines devoted to photography.

Seattle's first real photographic salon happened last year. Carefully planned for nearly twelve months, with country-wide interest stimulated by judicious advertising in *Camera Craft* and other national photographic journals (practically to the exclusion of any other medium), the salon opened with more than 500 prints hung, chosen from a total number of more than 1100 entries. A thoroughly satisfying show—splendidly representative—with an attendance recorded of more than 6,000.

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Here was ample encouragement for the next year's work—which culminated November first, 1921, in the second Frederick & Nelson exhibition which has just closed (November 12) after showing to practically 10,000 people.

Well-drawn regulations, which have appealed to the discriminating exhibitor—a liberal prize list—a very carefully selected board of judges—and a properly-staged exhibition—these are the things which have counted for success. The event has been kept peculiarly free from any commercialism, being handled by the advertising bureau of the store, entirely distinct and apart from the merchandising end of the business. The foundation has been laid for a Pacific Northwestern Salon worthy the best traditions of the art.

The Judges of the competition were as follows:

Mr. Wayne Albee,
Portrait Photographer, The McBride Studio.

Mr. Asahel Curtis,
The Asahel Curtis Studio

Mr. George R. Hippard,
Assistant Managing Editor and Director of Art and Features, the Seattle Times.

Mr. M. P. Kirkpatrick,
President, The Bushnell Studio.

Mr. Henry Roth,
Painter and Etcher; Art Staff, the Seattle Times.

Mr. F. Tadama,
Head of the Department of Painting, Seattle Art Club School.

Mr. A. C. P. Willatzen,
Architect; Director of Exhibits, Seattle Fine Arts Society.

Several exhibitors at the recent Pittsburg Salon are also represented in Seattle, W. A. Alcock, James Doolittle, John Paul Edwards, Ernest Pratt, and A. B. Hervey, winner of the first prize of \$100.00 in the exhibition now under discussion.

Rabinovitch of New York shows several prints, four of which are portraits, extremely rich in tone and powerful in their composition. Roy Heiser's "Wilma Ruth" is another vivid portrait, not at all static. The picture comes forth from the plane of the photograph.

From Los Angeles, Mr. Doolittle turns in a number of strong prints, one of the most important of which is "The Thinker", a horizontal composition, a single figure of a Chinaman seated at a table, with almost the same richness of tone as distinguishes the Rabinovitch prints.

For a group of prints of striking interest there was awarded a special prize to John Paul Edwards of Sacramento, who displays a considerably lighter touch in his work than the two former men. Perhaps the most striking of his prints is the "Footpath" on Brooklyn Bridge, showing a symmetrical composition with the two Gothic arches seen through the cobwebby structural frame work. If he had waited for a wisp of steam from a passing tug, his composition might have been a little less rigid.

PICTORIAL PHOTOGRAPHY—SEATTLE



IN THE ARBOR
First Prize
(Seattle Salon, 1921)
By ANTOINETTE B. HERVEY

CAMERA CRAFT

It is surprising how our attention is drawn to the California photographers. That 14 of the prize winners out of 34 should prove to be Californians, was interesting to all.

Ernest Pratt (Los Angeles) in the "Quiet Traffic Hour" catches from a high point, a view of a street scene where a few straggling automobiles reflect the glint of the slanting sun, and drifting shadows lie over the street. Clarence Tucker in "Entrance to an Art Building" and John Stick in "Entrance to Museum" submit two striking views of building entrances.

The professional photographer would no doubt have recalled and been interested in "The Wishing Bowl" by Herbert J. Harper, one of the few pictures which had been previously shown. Rather an exotic composition which one hardly could have forgotten.

The grim jaws of a steam shovel and the portion of the wheel of a truck, very suggestive of gigantic industrial enterprise, were two pictures interpretative of this mechanical and constructive age. We have to admit that this fine work is again the product of a Californian, Johan Hagemeyer.

Antoinette B. Hervey's "In The Arbor" was peculiarly successful as a portrait study. She not only achieved an unusual decorative composition, with light and shade handled well, but in addition to the pictorial quality of the print, cleverly contrasted the two temperamental types of the subjects. She also exhibited a stunning architectural subject—the shadowy archway of New York's Municipal Building with the sun slanting edgewise into its recesses. It is seldom that a single photographer exhibits two such excellent pictures of two such diametrically opposite subjects.

It is interesting here to note that there were in this exhibit perhaps a half dozen excellent architectural portrayals whereas in last year's exhibit there were none.

"The Smoke Eaters," awarded Third Prize, by W. H. Zerbe of Long Island, deserves credit for a composition which must have without doubt been unpremeditated—a group of firemen upon a fire escape amidst steam and smoke. It gives a unique and artistic interpretation of a scene rarely shown with artistic value. He also exhibits perhaps the most unique striking print in the exhibit, two graceful figures dancing in the conical rays of a spotlight.

Hardly without exception the work discussed above is free from pictorial sentimentality, from plagiarism, or attempts at copying other mediums.

The entire exhibit in fact, was admirably free of these traits which photographers, especially amateurs, often indulge. It was indeed very refreshing and one found one's self in a delightfully optimistic mood toward the art of photography after seeing the 400 exhibits.

It might be said in general, however, that the type of work shown was rather static than dynamic. There was no wind in the trees, no sustained drapery in the dancing figures, no storm driven waves with foam in the air, or animals in motion, and here the photographic eye is supreme.

PICTORIAL PHOTOGRAPHY—SEATTLE



SEATTLE HARBOR
Second Prize
(Seattle Salon, 1921)
By GEORGE M. ALLEN

CAMERA CRAFT

It has been contended that the mind left in suspense by an object which is in motion is not considered good art. But here is a possibility of developing an art of the photograph that does not compete with other arts. Again it might be said that it was surprising how little of the art revolution so much heralded appears in this particular salon except in Hagemeyer's "L'Affinite".

Pictures "that look like paintings or etchings" were few in number. Belairs "Morning Fog" and Lillian Redmaynes "In Nova Scotian Waters"—little gems of their kind—were two noteworthy illustrations of this type.

Simplicity was not so overworked as an ideal either. A still life study by Fred Carter of a bowl and clay pipe frequently called forth the remark "there now, that's simplicity" but it was rather poverty of concept. Simplicity comes from the synthetic co-ordination of different materials and requires the greatest artist to devise.

Ralph Cahn's "Design For a Bookplate", a study of two books and a bronze figure, is coordinated simplicity. The vertical lines are repeated and reflected, the shadow of the book, the sweep of the curve, are just right.

The second prize winner, "Seattle Harbor", by George Allen of Portland, has a pearl-like quality very characteristic of the atmosphere in Seattle, where the climate is very English. It is a great regret to many people that Wayne Albee of the McBride Studio has both years been on the jury so that none of his charming pictures were exhibited.

He has a waterfront view of Seattle that shows poetry of conception, and a delicacy of printing that gives an observer the exact impression of the peculiar charm of atmosphere in Seattle.

W. A. Alcock's "Hard Going" and "Bon Secours Market" were charming examples—one of pearl-like atmosphere, the other of bold contrast of light and shade.

The entire Exhibition showed the increasing vogue for the soft-finished work. The majority of the prints on the walls have been made with diffused focus lenses, in pleasing contrast with the sharp, bald literalness which has heretofore handicapped photographic practitioners when attempting to use it as a mode of individual expression.

There was nothing bizarre about this Exhibition. The quality was high and the tone even. It was an exhibit you could come back to often, and as often find constant new interest. There were many tree pictures; among the most charming, "Sunlight" by Winton Medlar.

Curiously enough, there were few garden or flower pictures. The exception was a series by Ella McBride of Seattle, which received three honorable mentions. "Poppies" was especially charming. A "Still Life" of a bronze figure with a pattern of flower shadows in the background was much admired.

Among the few nude studies, several by Japanese attracted attention. S. Sunami of Seattle showed several unusual studies.

PICTORIAL PHOTOGRAPHY—SEATTLE



THE SMOKE EATERS
Third Prize
(Seattle Salon, 1921)
By WILLIAM H. ZERBE

CAMERA CRAFT

There is, of course, a great deal in printing craft, the quality of tones and the enlarging process, and this technical side of the exhibition was very interesting.

The effect of the exhibition was enhanced by the excellent illumination, and the judicious height at which the exhibits were hung. The location of the carpet runners which kept the casual observers at the right distance was good.

Mr. R. E. Morgan, who arranged this exhibition for Frederick & Nelson, states that the store is already laying its plans for next year's event, which will, as this year, be staged the first two weeks in November.



To Reduce Dense Negatives

Dense negatives are not by any means confined to the experience of photographic novices. They are the property of all to a more or less degree.

The following formula is generally used to reduce this density wholly or in part, as the case may require, and also it is useful to remove certain kinds of fog which may show in our plates or films:

A: Potassium Ferricyanide	60 grains
Water to	10 ounces
B: Hypo	2 ounces
Water to	10 ounces

A dram of A is added to each ounce of hypo solution, the negative immersed in this reducer and the tray gently rocked. The more of solution A that is added, the quicker will be the reducing action; an excess of A will cause the gelatine to be stained a yellow color, this should be avoided. The work of reduction should be carried out in subdued white light, and when the reducing action appears to flag, pour off the spent reducer, rinse the negative and supply a fresh quantity. Only mix A and B solutions immediately before use. If our plates or films are dry it is wise to let them soak in water for ten minutes before reducing. Workers will save much time by reducing their negatives immediately after fixing and washing, before the negative has been allowed to dry, the action of the reducer at such a time is far more rapid.

For local reductions use a soft camel-hair brush or tuft of cotton to apply the reducer. Do this with water handy, as the negative needs frequent rinsing to avoid harsh edges to the treated portions.—E. F.



GAMBLERS
Prize Winner
(Seattle Salon, 1921)
By JAMES N. DOOLITTLE



Multiple Gum Process

By N. P. Moerdyke



Illustrations and Frontispiece by the Author

About two years ago, when I had read and digested every article I could find which dealt in any manner with the many phases of the gum process, I reached the conclusion that it was a total impossibility to put into print any article upon the subject which could do more than convey a rudimentary idea of the theory of the process, and that the practical technique of the process must be worked out, by one who would attempt it, only by means of hard and laborious effort or else by means of personal observation of the methods of a successful worker. I have not departed from that conclusion. In fact my own experiences have served to strengthen it. So that it is with many misgivings that I attempt to sketch briefly some of the methods which I have learned to employ in the making of multiple prints. No good purpose would be served in dealing with the theory of the process. The average amateur is an omnivorous reader upon photographic subjects, and probably knows the theory better than I do. Nor can I attempt to cover all of the phases of the process, for my experience is confined to the making of multiple prints only, and I must, in honesty, confine my statements solely to the methods which I have found sufficient to enable me to make multiple prints of a sort.

Oddly enough, I believe that the attempt at multiple prints presents fewer difficulties to the beginner than any other branch of the process. This for the reason that it seems to be conceded that the production of single prints depends upon a number of variable circumstances and conditions, including type of negatives and an infinitude of combinations of gum, pigment, and sensitizer, while the production of multiple prints may be reduced to a greater degree of precision by the comparatively simple method of control of pigment and of printing time, keeping the combination of gum and sensitizer invariable.

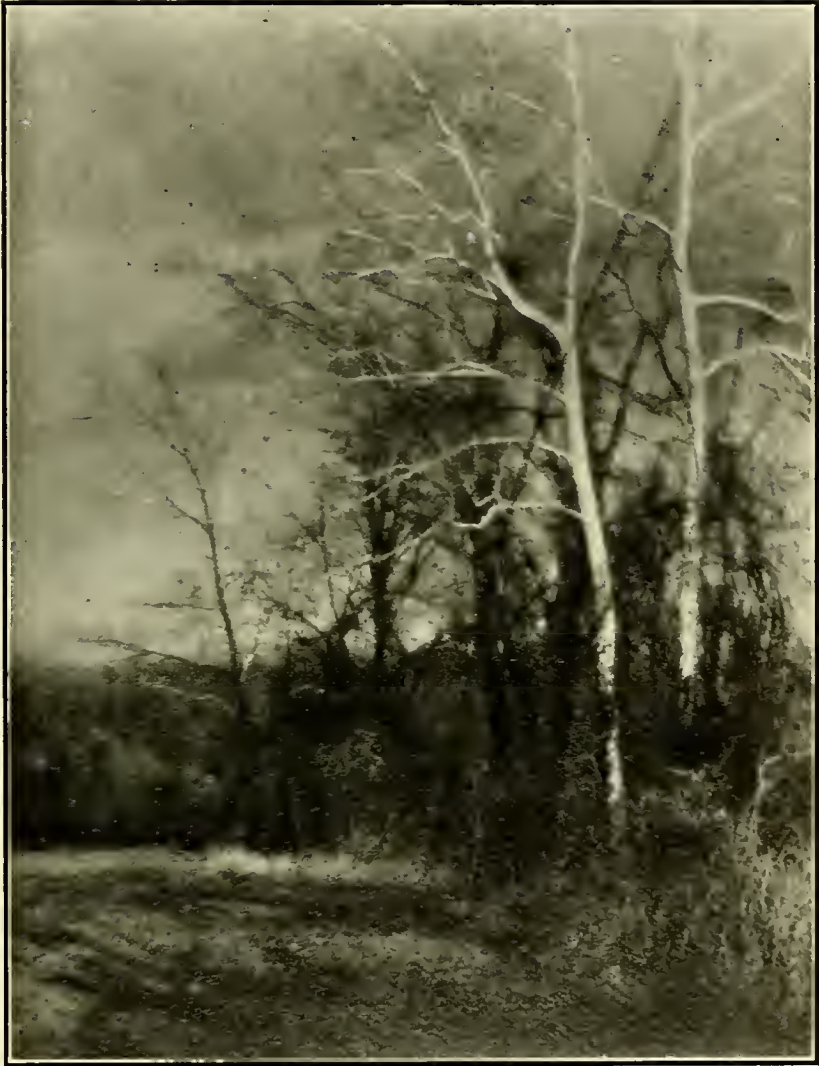
To illustrate this idea, I may briefly outline the methods of procedure which I have learned to follow.

FIRST—PREPARATION OF THE NEGATIVE

Assuming that an enlarged negative is to be used, the usual method of making a positive upon any slow-working, snappy plate is the first step. A great variety of plates are suitable for this purpose, such as Hammer Slow, Seed 23, Imperial Process, or for more contrasty requirements, the Cramer Contrast, Central Transparency, and the various makes of lantern plates.

MULTIPLE GUM PROCESS

Once the positive is completed, the enlarged negative is made by projection upon glass, film, or paper. Of the three, I find the paper negative to be most uniformly satisfactory. True, it implies some loss of detail, but detail is unessential, while a wide variety of retouching may be performed upon a



WHITE BIRCHES

London Salon, 1921

paper negative, which would be beyond the average amateur if attempted upon glass. Treatment of the paper negative is a subject in itself. Suffice it to say that the development of slight artistic skill renders possible an unlimited field of modification, in which, of course, a high degree of caution and restraint should be exercised.

CAMERA CRAFT

The bromide paper to be used for the negative should be one affording the richest possible emulsion as well as the most transparent and finest grained of paper stock. I have found P. M. C. No. 2, and Ilford Platino-Matte Special Smooth to be quite well adapted to the purpose, but I am looking forward to the receipt of some of the newly-produced Brantom negative paper, as experiments with the latter in small sizes would make it appear to be the best paper obtainable. Exposure of the paper should be normal, while development should be carried to the utmost limit short of fogging, in order that the deposit of silver in the high lights may be of sufficient opacity to ensure clean printing quality. The test of development of the paper negative lies not in surface appearance, but in its appearance when held to the dark light for inspection just as a glass negative is viewed for density.

After-treatment of the negative for transparency is unnecessary and dangerous. If the paper stock is of the proper quality, printing time is not sufficiently long to warrant the application of wax or oils to reduce it, and the danger lies in uneven application of the medium and the possibility of its leaving a trace of grease upon the gum coating which renders subsequent coating impossible.

Once the paper negative is complete, it should be prepared for registration. Numerous methods exist, but I have found the simplest to consist of masking the negative by gluing it by the four edges to a cardboard mask, the outer edges of which are larger than the negative while the opening is approximately one-half an inch smaller than the negative. When this is done, pencil lines may be drawn on each of the four sides of the mask, to which corresponding lines on the back of the coated paper may be made to coincide when placing the paper in contact with the negative for each printing. In other words, I mount a 11x14 paper negative on a 14x17 cardboard mask which has an opening measuring $10\frac{1}{2} \times 13\frac{1}{2}$ inches, then cut my paper for gum coating about 13x17 inches, and by means of the penciled lines referred to, secure easy and comparatively accurate registration.

SECOND—SELECTION AND TREATMENT OF PAPER STOCK

Four elements are to be taken into consideration in the selection of paper stock. These are:—grain, uniformity of shrinkage, porosity, and buoyancy.

As to the first—the matter of selection depends upon suitability to the subject, and the amount of detail desired. Briefly, a rough water color paper is preferable for broad effects where the minimum of detail is desired. Incidentally, the rough water color papers are the easiest to coat. On the other hand, for subjects requiring less broad treatment and more detail, the standard charcoal papers, or cold pressed water color papers may be used. Both the cold pressed and rough Arnold and Whatman water color papers are excellent in their class, and of the charcoal papers, the Michallet, Ingres, Lallanne, and Strathmore are suitable, the Michallet being by all means the

MULTIPLE GUM PROCESS



MOUNTAIN SNOWS

London Salon, 1921

best. All of these papers possess almost absolute uniformity in shrinkage, an essential requisite, inasmuch as any variation or warpage in shrinking between coatings and development renders registration impossible. Also all of the mentioned papers are sufficiently buoyant, although the Rough Whatman and Strathmore charcoal, unless thoroughly sized, occasionally exhibit a tendency to sink in the water during development, and contact between the soft gum coating and the bottom of a tray or laundry tub is apt to be sadly disastrous. Both of these papers are also quite porous and require not less than two applications of sizing in order to prevent staining in the high lights by the pigments used, while the other papers mentioned work excellently with but one sizing.

It is impossible to produce a clean multiple print with perfect registration, without shrinking and sizing all paper used. Sufficient shrinkage may be obtained by soaking sheets, cut to size, in water for half an hour and then hanging up to dry under the same drying conditions that are to be used in drying prints between coatings. Once shrunk, the paper may then be sized in the following manner:

Mix sizing solution as follows: (formula by P. L. Anderson.)

Water	4 ounces
Nelson's No. 1 Gelatine	60 grains

CAMERA CRAFT

Allow the gelatine to soak for five or ten minutes, then bring the solution slowly to heat in a double boiler, and when the gelatine is completely melted, add the following:

Hot water	1/2 ounce
Chrome Alum	12 grains

Stir the hot chrome alum solution into the gelatine until thoroughly mixed, then, keeping the solution hot at all times, apply to the paper with a small, soft sponge. The paper is to be fastened to a drawing board with thumb tacks or push pins, and the gelatine applied with swift, light strokes, crossing and criss-crossing the paper. Not only should the paper be saturated with the gelatine solution, but renewed application should be kept up and rubbing continued until a thin film of gelatine is established in the surface pores of the paper. The sponge should be kept hot by immersing in hot water between applications. After completion of the sizing operation, the hot sponge, thoroughly squeezed out, may be used to remove any streaks or surplus accumulation of gelatine, and the paper then hung up to dry.

THIRD—PIGMENTS AND SOLUTIONS

The most useful as well as the cleanest working pigments I have found to be those contained in the moist water color tubes manufactured by Windsor & Newton, F. Weber, and Talens & Son. A wide range of colors may be used—from Payne's Gray to Lamp Black. A good warm black may be produced by combining a dash of Indian Red, Venetian Red, or Burnt Sienna with a half inch or more of Ivory Black, or with ten to twenty drops of Windsor & Newton's Process Black. For straight black prints, the Process Black just mentioned is excellent, but with this as well as with the warm black combination, I find that the last or shadow coating is best made with the use of three-fourths to one inch of Lamp Black.

A good gum solution is to be found in Sanford's Royal Crown mucilage, although I presume other mucilages may be equally as adaptable. For sensitizer, saturate solution of potassium, ammonium or sodium bichromate may be used, my personal preference being for the ammonium salt. No formula is required for mixing the sensitizer; I find it quite satisfactory to place in a half-pint bottle one-quarter its volume of bichromate, fill with water, shake it up occasionally and use the solution after it has stood for several days.

FOURTH—COATING THE PAPER

I have seen and tried a considerable number of formulae for mixing the coating solutions, but for my personal use, I prefer for all coatings a solution suggested to me by W. A. Hudson, compounded of one part gum, two parts bichromate solution, and a quantity of pigment depending upon the quality or depth of tone I desire in the finished print. This may be contrary to all established theory, but I find it entirely possible to hold all tone gradations by pigment control and variation of printing time, keeping the relative quantities of gum and sensitizer invariable. For instance, here

MULTIPLE GUM PROCESS



IN THE LEE OF THE WHARF

Los Angeles Salon, 1921; Pittsburg, 1921; Toronto, 1921

are formulae for three-coat prints that I commonly use:

HIGH-LIGHT COATING

Process Black	10 drops
Mucilage	2½ drams
Bichromate	5 drams

HALF-TONE COATING DITTO SHADOW COATING

Lamp Black	¾ inch
Mucilage	2½ drams
Bichromate	5 drams

The solution is mixed as follows: Place in small glass mortar the pigment to be used; add a small quantity of mucilage; work up with pestle until thoroughly mixed, no lumps or flecks of color remaining free in the mucilage; similarly work in the balance of the mucilage; slowly stir in the bichromate until thorough mixture is obtained.

To coat the paper, pin it to the coating board with push-pins, being sure that the surface upon which the paper rests is absolutely free from inequalities. Have ready a three-inch rubber set varnish brush and a badger blender standing in water. Shake the water out of the varnish brush and dip into the coating solution, then by drawing the brush over the edge of the glass mortar force out the greater part of the coating solution, leav-

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ing only enough in the brush to coat the paper with the thinnest possible coating. A surplus of solution on the paper may be the cause of untold grief. Speed is now the word. Plainly speaking, paint the paper with quick strokes until it is covered completely, then whirl the water from the badger blender, and blend with light criss-cross strokes made with the tips of the brush hairs, holding the blender vertically and lightly, until a smooth, even coating is obtained. As the paper expands with the moisture, stretch it by re-setting the push pins. When the coating has become "tacky," stop blending and hang the paper up to dry.

Undoubtedly to obtain the best results the paper thus coated should be used as soon as it has become bone dry. A simple and efficient practice is to coat and blend in subdued light, hang the paper to dry a few feet above a gas heater, in total darkness, and when the paper is thoroughly dry, which condition it should reach in from 15 to 20 minutes, put it in contact with the negative in a printing frame and proceed to print. I have successfully kept coated paper and printed it two or three days after coating, but on the other hand paper kept for a week has become practically useless through the insolubility of the coating.

FIFTH—PRINTING

I find it necessary to determine by experiment with test strips the proper printing time for highlight coating only. In other words I print test strips placed in contact with the highest lights of the negative, gauging the time by guess, and developing them, and choosing as proper the printing time of the test strip which, upon development, only clears in the highest lights, with some partial clearance in the next highest tones. Having fixed the original printing time, the printing time for the half-tone coating and the shadow coating are determined by the scale of gradation of the negative.

Should the negative be "soft"—the range of tones is not great—consequently the printing times will be less widely separated than were the negative one with a longer range of tones. Judgment and experience can only teach the proper control of printing time, but roughly speaking, for a soft negative the half tone printing time should be two-thirds, and the shadow printing one-third of the highlight time, and for a snappy negative the relative times should be one-half and one-fourth of the highlight time. Variations in these times, together with control in the amount of pigment used, are the means which I have found simplest in dealing with varying negatives. It should be borne in mind that, while variation in the relative quantities of gum and bichromate produces the same effect, yet each of such variations has an immediate effect upon printing time, which must then be determined by the various forms of experimentation. At least in practice, I have convinced myself that by retaining invariable the quantities of gum and bichromate, and controlling the printing time and the quantity of pigment, I can produce a full scale of tones, without detrimental loss of detail, and can produce strong prints from weak negatives, and comparatively soft prints from hard negatives, although I customarily work for a strong, snappy negative.

MULTIPLE GUM PROCESS

SIXTH—DEVELOPING

As each coating is printed, the paper should be immersed in lukewarm water until soaked (this may be in full daylight, in a tray or in the family laundry or bath tubs), when it should be floated face downward until the soluble gum has washed off and clearing has reached the desired point. The standard articles are full of instructions upon this point, and the instructions fortunately can easily be put into practice. I may only add that I prefer automatic development except when I find it necessary to do some brushwork, which, incidentally, is an exceedingly delicate task, and must be done with discretion, as the softened gum coating comes away unexpectedly under the brush and may produce some weird and wonderful results. One word of warning to the beginner at the process may not be out of place here—do not be afraid to let the print soak until full clearing has been obtained, and do not be alarmed at apparent blockiness until you have completed development of the final coating. When, on the highlight printing and development, your highlights have cleared, you may expect your half tones and shadows to be blocked up—and upon your half tone printing and development you may expect your shadows to be blocked up. Only when you have completed the building up of your image by consecutive coatings, printings, and development, down to the last shadow coating, may you expect your print to assume a finished appearance. As soon as development of one coating has been completed, the print may be hung up to dry over a gas heater, or pinned to a board and set in the sun, and when it is thoroughly dried the next coating may be immediately applied. In this way, I have managed, by rapid work, to apply and develop as many as four coatings to one print in one day.

After the last coat has been developed, some means of removing the bichromate stain is advisable. This may be done by bleaching in the sun, or, after the finished print has once been thoroughly dried, by immersing in a 5% alum or a 5% sodium bisulphite solution until the stain is removed. The bisulphite solution is the most effective of the three, but inasmuch as it has the effect of softening the gum as well as removing the bichromate, the print must be carefully watched and removed at the first sign of flaking, and then carefully rinsed and dried.

The foregoing is perforce a very brief and sketchy outline of one method only of making multiple prints. A very little experimenting should enable the beginner to determine for himself just how well it is adapted to his own needs, and many variations of the method may be easily perfected. The matter of color and tone combinations is one for experiment and offers many interesting possibilities. Once the rudiments of the process are mastered, it becomes most fascinating indeed, and opens up a field of pictorial treatment that is wholly impossible with the simpler development processes, beautiful as the results of these processes are. On the other hand, it cannot truthfully be described as possessing simplicity in operation, as a considerable amount of labor is involved in the production of a print.

OUR WILD FLOWERS

Kindly Contributed by Our Readers

XIII. ELDERBERRY

Possibly more are familiar with elderberry pie than the elderberry blossom, bush or tree.

The blossom possesses real fragrance very similar to the orange or laurel blooms. The flower is pretty in itself as may be judged by the photograph. Its color is a green tinted cream. In the bud it appears leaf green, but takes on a creamy hue on opening. As the blossom matures passing into the pollenizing stage it becomes speckled with rusty spots and is then difficult to photograph.



The berries are black or rather a grey black on account of a delicate bloom covering the fruit, but in elevations of five thousand feet the berries have a fire-red color, and in these altitudes they constitute the chief food of mountain fowl as quail, grouse, pigeon, dove and other snow birds. At these altitudes the elderberry seldom grows more than a bush of five to seven feet high, in the coast regions it develops into trees with ten to twelve inch trunks and attains to a height of thirty to forty feet.

The negative was made with an 8½ inch Tessar lens on a 4x5 Telescopic Graflex, roll film, no filter.—Lewis F. Hile.

The Peanut Cartoons

By COBB X. SHINN



With Illustrations by the Author

"Something different" is what the Public is always looking for, and every editor is trying to please his subscribers, so that is the reason he is always waiting with open arms for that "something different" to be put on his desk.

Many an amateur photographer could do this if he would only apply himself. The best way to apply yourself, is never to be quite satisfied with any negative that you make. You must try to figure out a way to make it better, or different, and if you have this attitude toward every picture you make, the first thing you know, it can be made into an interesting or humorous photograph that some editor will be willing to pay from one to ten dollars for the use of, in his paper or magazine.

"Yes, dear! It is the Great Black Sea."



"Have you seen anything of Mr. Firefly? I want him to light my fire-crackers for me."

It is almost useless for me to explain how the illustrations used here, were made. Anyone who has ever owned a camera

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which had a ground glass, making it possible to focus upon objects, will understand. Of course, you will have to use the smallest stop of your diaphragm to deepen the focus. When you do this you make even the fastest plate very slow, but this makes no difference for your models will not move, unless the wind should get to them and blow them over. Also, you will find that electric lights make a better medium to photograph by than daylight. If you use electric lights, frosted globes

will be the best kind to adopt; or you can diffuse the light by wrapping white tissue paper around an ordinary light bulb. This will kill your sharp shadows.

"My home is in the Piano, but I forgot just which Flat I live in."



When I first thought of photographing peanuts, I found that a picture of a peanut was very uninteresting, so I tried to think of some way to make a little peanut a more interesting study. All that was needed were some toothpicks to make the arms and legs, and modeling clay for the hands and feet, and a few objects that can be found around any home.

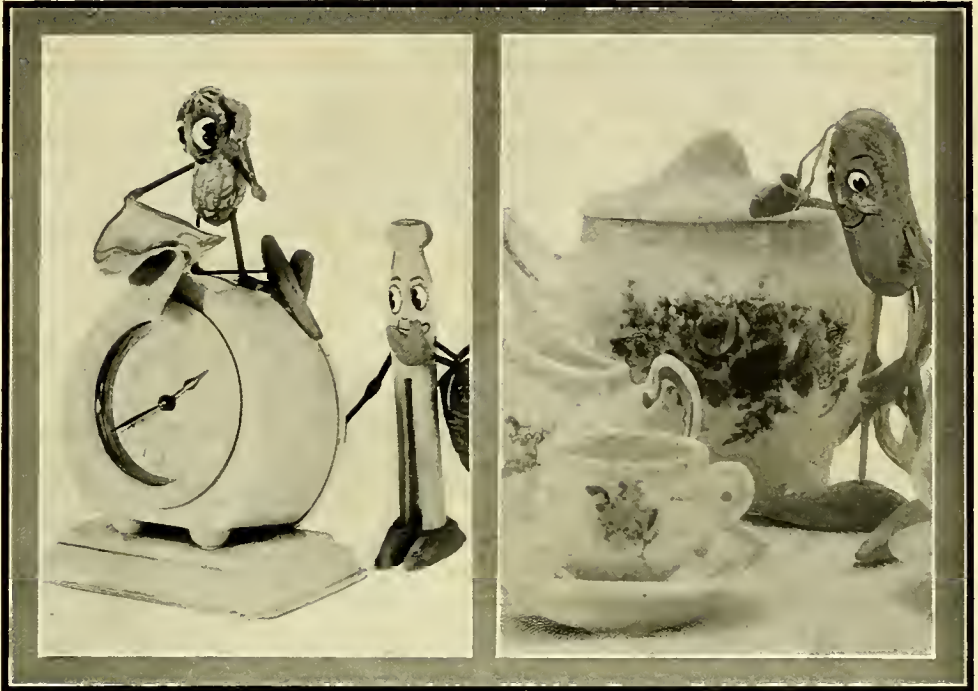
"Yes, this is a great world we are living in," said the Silly Little Peanut, as he jumped upon a tube of tooth-paste, "You see they even can worms so that the Canary can have worms to eat the year round."

With these few little things, I have made subjects that have sold to Judge, Cartoons Magazine, David C. Cook Pub-

lishing Co., Hollands Magazine, Farm and Home, Book of Fun and many others. John Lang & Co., Ltd., London, bought the English rights for over 50 subjects at one time.

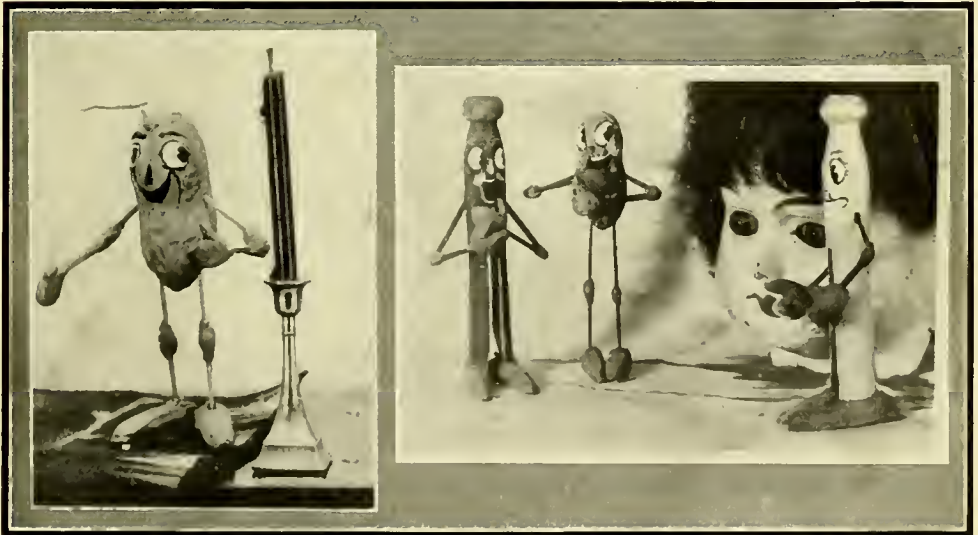
THE PEANUT CARTOONS

Just stop and ask yourself how many things you pass by every day that you could use in a like manner, now that I have given you the secret of making peanut cartoons.



"What are you doing on that clock?" asked the Clothes-pin. I'm cleaning it up, and I'll get double pay for working over time," replied the Silly Little Peanut.

"I was lost, but I know where I am now, Down in China—Town."



"Lost Again! I am on the Great White Way, but I am not sure, for they have no signs on the Lamp Posts."

"Don't you fellows know anything? That's the Sphinx," said the Silly Little Peanut.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FOUNDED MAY, 1900

Vol. XXVIII

San Francisco, California, December, 1921

No. 12

A Merry Christmas and a Happy New Year!

Give it a Thought!

How many of your friends own a camera? You could probably name five who enjoy the photographic hobby; without the least trouble.

Have you given it thought? It is in your power to give one of these friends a real pleasure. Would not a subscription to an interesting and practical photographic magazine like Camera Craft be about as acceptable a Christmas present as you could decide upon?

Friends may be embarrassed by the receipt of a costly present, thus, the J may be lost out of Joy, a little memento, one is not forgotten is all that is wished for—by friends. And remember this, every thirty days your friend receives a new magazine—your gift.

Here is another thought. Have you subscribed or renewed your own subscription to Camera Craft? It does not matter if you have yet some months to run before your present subscription expires, take up a renewal now, have your subscription extended. This is one little thing you will not regret doing and you have until December 31st to do it—AT THE OLD PRICE.—E. F.

Art and the Crafts

It is a curious and unfortunate circumstance that, except for a very short period following the discovery of photography, its relation to other forms of graphic art has been but little exploited. Many of the photographic pictorialists, it is true, have insisted on an art training as a prerequisite for photographic success. Not a few writers on painting have advocated the use of photographs as an aid in fixing the fleeting aspects of nature. On the other hand, not a few have deplored, and even fiercely denounced, the influence of photography on painting, both in the form of what may be called painting from photographs instead of nature, and also the introduction of unnecessary detail, which is the bane of the average photograph. Equally antagonistic has been the attitude of some pictorial photographers who have demanded liberation from the art ideals of the welders of the brush and the graver. That there is a great field in which, without sacrificing the individuality, the fundamental techniques, oil, water, tempera, black and white and photography, can exchange impressions to the great benefit of each, does not seem to have been fully recognized. The various art journals have afforded, in a not very purpose-

EDITORIAL

ful way, a medium of comparison to which, in a few instances, photographic art has been given an occasional place at the end of the table, and hitherto the photographic journals have not given space to their sister arts nor have they shown any interest in the work of artists of today. From time to time a journal has appeared of a compound character and during its career *Camera Work* gave attention to one phase of modern art that proved its swan song. The threnody should have been provided by Matilda Blinde, but that we may let pass. *Camera Craft* now proposes this needed liaison. We feel that every serious worker in photography needs the eye training and the power to discriminate and select which the painter must perforce exercise in the building up of his work. Although photography deals with the aspects of nature or things, that in some way must appear on the plate, yet an understanding of how these elements of picture making are handled by the professional artist, is of enormous value in determining choice of position and lighting, in determining amount of diffusion and the medium of final reproduction. To this end it is the intention of *Camera Craft* to seek in current art, and to reproduce, such pictures as may have a direct bearing on photographic practice; to choose our models from different schools, that different methods of handling may afford patterns for greater variety than is manifest in so much of the pictorial work seen in photographic salons. Photography could legitimately enter into many other fields than that which it usually occupies. Why do we not have more photo ceramics? Why is photography not used in design and decoration? The whole field of applied art is open to exploitation by the camera and nothing but the lack of familiarity with general decorative art closes the door to its utilization. Here again we propose deliberately to choose that which may be useful to the photographer.

Finally, we are convinced that a very large field of photographic utility is lying wait to the artist who will use the camera or its products as memoranda for sketch studies. Photographic studies of foregrounds, tree groups of different types under different lighting, aspects of the same subject taken as foreground, mid-distance or distance, objects in various perspectives, would have an enormous value to those who have to compose pictures away from the scene of their inspiration. It is a phase of photography that has never been properly exploited and to it, too, we purpose to give some attention in this new department, *Art and The Crafts* which we hope will be a source of help and inspiration to both photographer and artist.—H. D'A. P.

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

Recent Improvements in the Carbro- Process

(Continued from November Issue.)

I have not made more than six Carbros from any one bromide, and have not been troubled with blisters or any other mechanical defect in the original print. It does not seem very advisable to harden the print to any great extent, as this has, in some cases at least, a detrimental effect. But the drying of the bromide print, before use, will harden it quite sufficiently and at the same time have no ill effects. Should this be done, it can hardly be necessary to point out how very essential a thorough soaking of the print is before any attempt is made to squeegee it.

There does not seem to be any "best" paper, but "platino matt" certainly works with greater ease than any other surface. This is due, in part, to the ease with which it may be squeegeed, and possibly also to the fact that, having no "surface," it is more easily permeated by the solutions. It is most advisable that the same paper should be used in all Carbro work, because, as one would expect, different papers work at different speeds, and the fewer variable qualities the better, especially when a test is being carried out.

The type of print may vary within pretty wide limits, but for the ideal result the bromide should be a shade lighter than for normal use. Carbro reproduces to a remarkable degree the slight—almost invisible—tones in the high-lights, and anything like an over-printed bromide is liable to lead to "bunged up" lights in the Carbro. The scale of the negative used and of the bromide print may be met by variations in the working, which makes the process of unusual value in the case of uneven negatives.

For fancy vignetting, double printing, and faking in general, Carbro seems perfectly well adapted; it should be of great use in those often troublesome cases where, perhaps five or six negatives have to be vignettted on to one sheet of paper. Also if landscape work is done, the insertion of clouds is much more easily done with "Carbro" than with any other type of print whatever.

There is a use, one might suggest, for "Carbro" which may add considerably to its value—that is, in the reproduction of prints, instead of copying. Naturally, this would only be done with your clients' approval, as it involves bleaching and re-developing the print. But the results should be far and away better than any copy, and the risk of damage to the print really very slight.

One thing is certain in the future of "Carbro"—that it will become the normal means of obtaining high-class enlargements. The cost of enlarged negatives has driven many to bromide enlargement who fully realized their faults. Now it is simply a matter of making an ordinary bromide enlargement and taking any number of Carbros from that. The quality of the process is shown even better in large work, and the difference between the best of bromides and a Carbro is greater than most people think. Also, your finishing staff will bless you when you take to Carbro; there is no easier paper than this to work on. To sum up. My tests have led me to the conclusion that the professional who wants the very best results, and yet cannot undertake daylight printing, will find in Carbro the solution of his difficulties.

—Arthur G. Willis, in B. J. of P.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

A General Album

Mr. Louis R. Murray, our Album Director, is making up some special albums for general circulation among members of the I. P. A. Every member who contributes prints, thereto will receive these albums, and they will be well worth seeing.

One is to be made up of unusual pictures, not a lot of oddities or trick pictures, but work along special lines. There will be new ideas for you in this book, suggestion of new subjects to specialize in, and, in many cases, the data of prints will be incorporated to give you a helpful start.

Night pictures always have a special charm about them and are out of the ordinary. If you have done any work along this line, either pictures made by moonlight or of illuminations, send Mr. Murray a few prints. Some of the I. P. A. members are very successful in architectural work, and your prints will help others to select the right viewpoint. Take your own pictures, go over them carefully, and you will find that there is some special subject towards which you are inclined; select a few good prints and send them to Mr. Murray. You will help the other members toward a broader vision and insure yourself a chance to enjoy the whole collection.

Number two album will be made up of scenes in your own home town that interest strangers. Almost every city, town or district has some historical point of interest, a typical local custom, dress or occupation. Pictures of these things interest people out of your town just the same as pictures from foreign lands interest you. Don't forget that things you see every day and pass by without notice are new to outsiders. A little investigation with your camera will reveal some wonders in your own dooryard, and you will be surprised at new knowledge to be gained close at hand. In San Francisco I pass the Ferry Building

almost daily, often consult the large clock in the tower, and have done so for the past several years; but it was just yesterday that I learned it was the second largest clock in the world. I always knew it was a pretty good sized clock, but it has quite a new interest now. A stranger within our gates would have known all about that clock the second day in town.

Take your camera now, and remember you are going to show the other fellow what you yourself go out of town to see.

Send Mr. Murray some prints for either one or both albums and incidentally give him some ideas on what you would like to see in special albums of the future. The address is 927 Ford Street, Ogdensburg, New York.

A. E. DAVIES, Secretary.

NEW MEMBERS

- 5034—George Waterfield, 1026 York St., London, Ont., Canada.
Class 2.
- 5035—Patsy S. Coluni, 153 Third Ave., College Point, Long Island, N. Y.
Up to $3\frac{1}{4} \times 5\frac{1}{2}$ of balloons, airplanes, historical and general; for anything of interest on single weight paper only. Class 1.
- 5036—Raymond A. Bartlett, 3019 15th St., N. W. Washington, D. C.
4x5 and 5x7 on Velox of general and historical views of Eastern U. S.; for general and historical views of Central and Western U. S. Class 1.
- 5037—C. H. Rice, Jr., 645 Mills Ave., Baton Rouge, La.
Class 2.
- 5038—Mildred B. Simmons, Box 80, West Farmington, Maine.
 $3\frac{1}{4} \times 4\frac{1}{4}$ and $2\frac{1}{4} \times 3\frac{1}{4}$ Azo of miscellaneous; for the same. Class 1.
- 5039—B. L. Gardner, 820 O'Farrell St., San Francisco, Cal.
 $3\frac{1}{2} \times 3\frac{1}{2}$ on Velox Gloss of scenes in and around San Francisco; for mountain scenery, street scenes or anything of interest. I desire to exchange only stereoscopic. Class 1.
- 5040—Wm. H. Walton, 139 East 9th Ave., Homestead, Pa.
 $2\frac{7}{8} \times 4\frac{7}{8}$ Azo of general views; for large fires over the country. Will try and accommodate anyone desiring pictures from Pittsburgh, Pa. Class 1.
- 5041—F. R. Harkins, 162 West Austin St., Duluth, Minn.
Class 2.
- 5042—Loris Hedge, R. F. D. 2, Ladoga, Ind.
Class 2.
- 5043—Al. J. Zeigler, Auburn, Ind.
 $3\frac{1}{4} \times 5\frac{1}{2}$ and $3\frac{1}{4} \times 4\frac{1}{4}$ Rexo and Azo of landscapes, commercial, marine, seaside and mountain views; for anything of interest. Class 1.

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

While the notices under this heading are strictly in the nature of information and news for the benefit of the reader, and are neither paid for nor actuated by our advertisers, we are compelled by the Postal Laws to mark them as follows:—Advertisement.

Reported by Wm. Wolff

A much appreciated feature of the new establishment of Hirsch & Kaye is the comfortable and cozy lunch room for the women employees. It is tastily decorated and furnished with comfortable chairs and settees. A gas range and other conveniences for light cooking have been installed. The room is located on the sixth floor, and has a large skylight, thus insuring sunshine and daylight.

Lafayette Studio, San Francisco, has just opened a new operating room for children only, and have equipped it with a Number 7 Century Studio outfit complete and new backgrounds.

Leopold Hugo and wife of Santa Cruz were recent visitors in San Francisco.

Writer is doing the Northwest at present.

Ed. R. Freeman of Palo Alto reports a nice advance Christmas business.

Pako dryers still going—two Oakland photographers installed them.

R. Kennett, formerly of the Northwest, is now located in Santa Cruz and reports business very good.

O. Hagman is in the midst of a busy season. Watsonville supports four photographers.

Max Green of Riverside Studio, Reno, Nevada, was in San Francisco last week of October, doing some Christmas shopping.

Alta Studio on Golden Gate Avenue, San Francisco, is doing some fine portrait work.

O. J. Smith, the popular plate demonstrator, called on us recently; also Harry Richardson, the Graflex-Premo man. Mr. Richardson is working towards New York where he generally spends his vacation.

Our Visitors

Harold J. McCurry of Sacramento, Cal., has been appointed postmaster of that city. Mr. McCurry is well known and has a host of friends among the photographic fraternity. All look forward with pleasure and confidence at his ability to fill this new and important position.

A. E. Suppiger, The Albertype Co., Brooklyn, N. Y., was on his annual business round. On this trip he has something new in the line of hand tinted reproductions.

Cook Lenses

The high quality and general reputation of the Cook Lenses has created a steady demand for these objectives. Readers of Camera Craft and photographers generally who are interested in these lenses will be glad to learn that the well known firm of Burke & James, Inc., of 240-258 East Ontario Street, Chicago, Ill., have been appointed sole American agents for the entire line of Cook Lenses. This will save delay and correspondence across "the pond" when information is desired. Address all enquiries to Burke & James, Inc., and save time.—Advertisement.

WITH THE CAMERA

Notes From the Illinois College of Photography and the Bissell College of Photo-Engraving, Effingham, Ill.

A recent issue of Abel's Photo Weekly makes inquiry if there is a younger professional photographer in North America, than Miss Esther Blair of Medicine Hat, Alberta, Canada. She is seventeen years of age, and for the past year and a half has been conducting her own studio. Miss Blair graduated from the I. C. P. early in 1920.

