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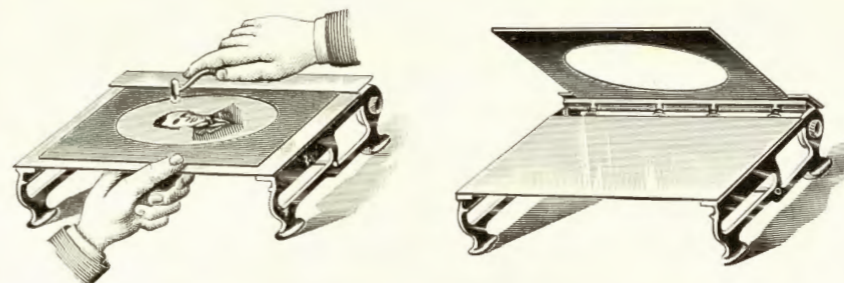
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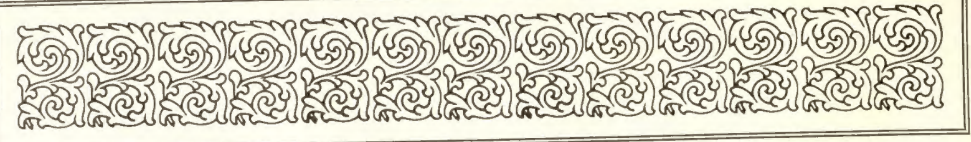
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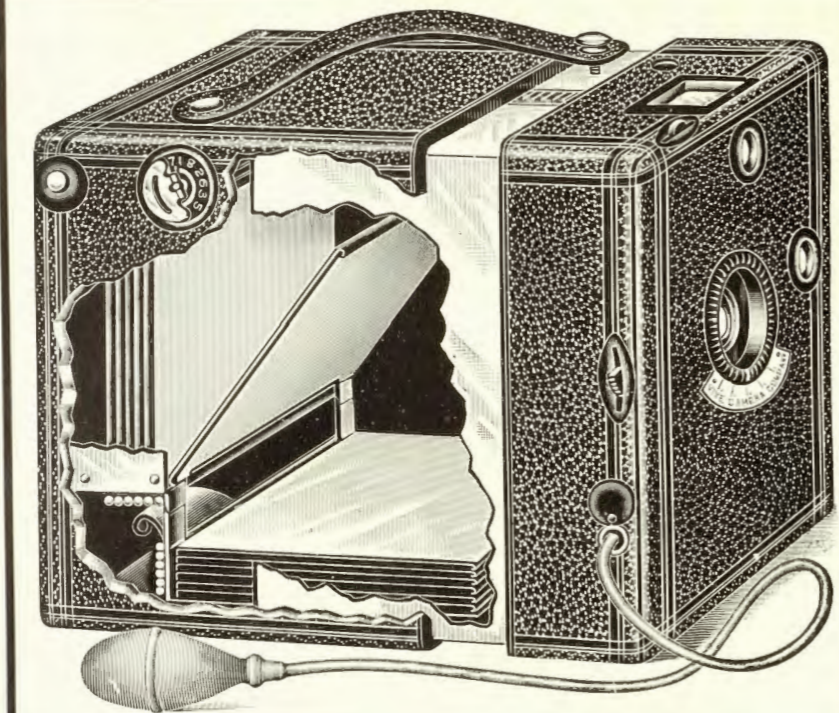
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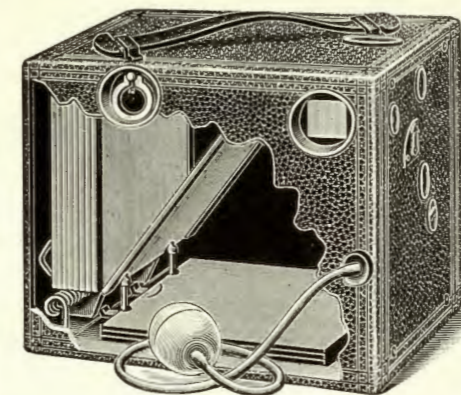
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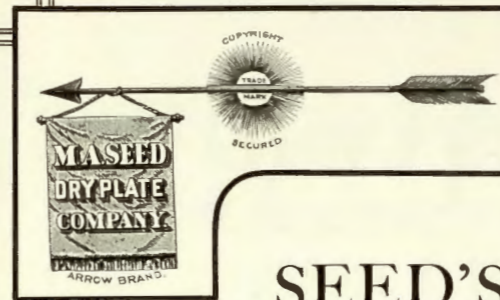
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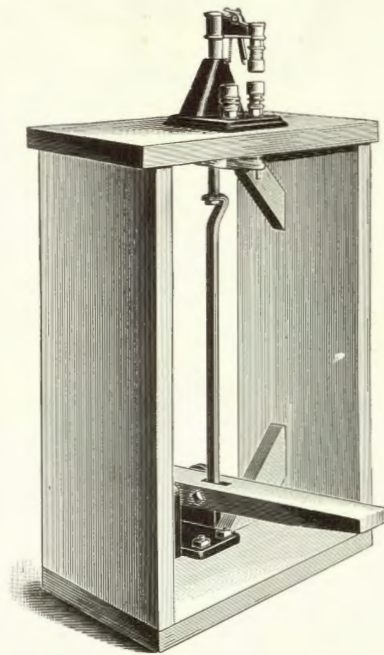
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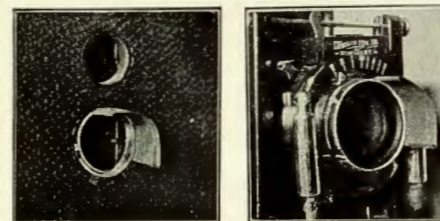
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SUMMER BREEZES
BY F. E. MONTEVERDE

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. III SAN FRANCISCO, CALIFORNIA, AUGUST, 1901

No. 4

THAT ESSENTIAL FACTOR—BRAINS!

BY KENNEDIC PERDIE

"All in the lens?"

"All in the plate and development?"

"All in the paper and the printing?"

"All in the light and timing?"

"All in the camera and the developer?"

"All in the camera and the developer?"

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"All in the camera and the developer?"



SUMMER BREEZES
BY F. E. MONTEVERDE

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. III.

SAN FRANCISCO, CALIFORNIA, AUGUST, 1901

No. 4

THAT ESSENTIAL FACTOR—BRAINS!

BY KENDRICK PERRIE

"All in the lens?"

"All in the plate and development?"

"All in the paper and the printing?"

"All in the mounting and framing?"

Nonsense!

It's the man behind the gun that does the work!

Many folks believe photography to be a sort of nickel-in-the-slot contrivance of cut-and-dried preparations; a few half-mechanical operations and nothing more!

A story is credited to one of England's most famous chemists, to the effect that he was once asked whether water was not the most indispensable component in all formulæ.

"No, sir," he replied, with asperity. "There is another ingredient which enters into every formula, whether simple or complex, which does more toward the success or failure of the result than all the rest of the items together."

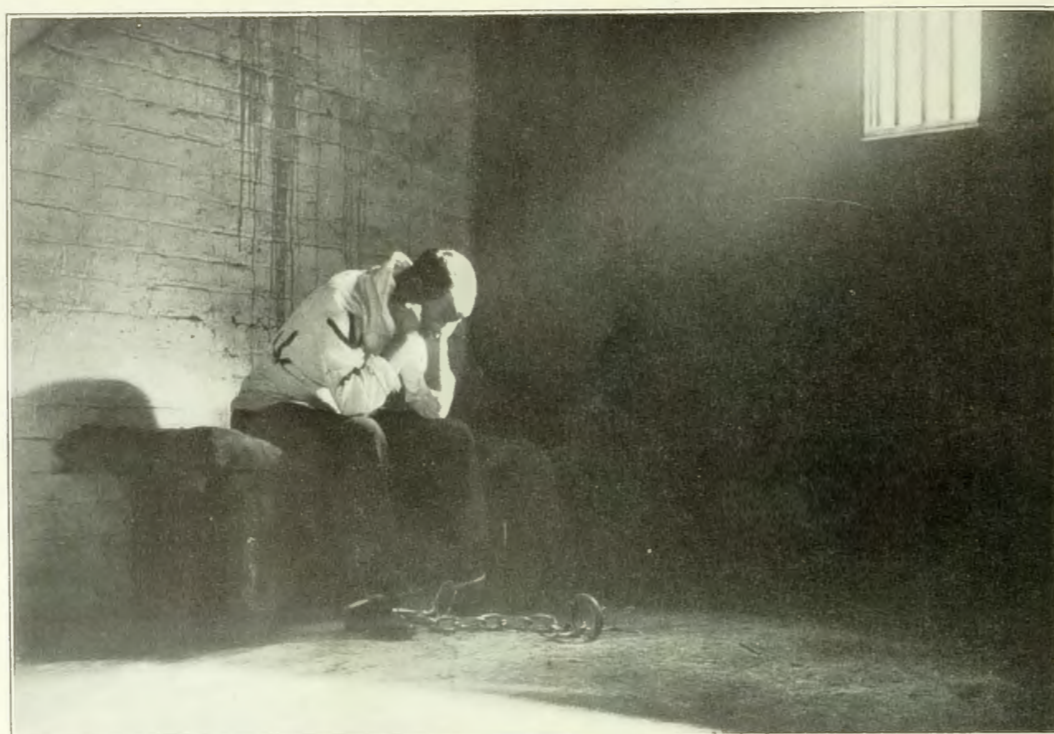
"And what is the important thing, sir?" queried a student.

"Brains, sir, brains!" retorted the old gentleman, with a sly twinkle in his eye.

There is much truth in the chemist's answer; and yet the majority of amateurs—the great majority—still continue to follow formulæ blindly, and obey directions implicitly, never dreaming that to vary a formula for special purposes is not to take an unwarranted liberty. They entirely ignore the fact that varying climatic conditions and temperatures require different strengths of solutions, and that in no two cities are the same conditions present as to the character of impurities in the water supply. All such differences are proper occasions for the varying of formulæ and often form the greatest possible changes in results, not otherwise understood.

By dint of repeated hammerings, it is slowly impressing itself upon the amateur photographer that inasmuch as heat accelerates the chemical action of the developing solutions, the formula may be diluted with water in hot weather with excellent results. But it is not so clear to his mind that during the winter time, when the cold causes sluggish action, that the water in the formula may be lessened to produce more rapid development.

But few, indeed, can tell, even when they pose as having studied the subject, whether it is advisable to vary the quantity of alkali in the developer rather than the quantity of water, or vice versa, forgetting that there is a decided difference in the relative strength of the different proportions of the ingredients. If a formula calls for an ounce of the active agent, or reducing



BY T. D. LEEDHAM, AUCKLAND, N. Z.

REFLECTIONS

solution, and an ounce of the sodium sulphite solution and an ounce of the alkali, together with seven ounces of water, suppose we wish to make development slower on account of the warm weather. We may lessen the alkali to three-quarters of an ounce, and then the proportion of the alkali to the rest of the developer will be as three-quarters is to nine and three-quarters ($.7\frac{3}{4}\%$). But the diluting, with no diminishing of alkali by addition of say two ounces of water, will change the relative proportions of alkali and total mixture to 8.33%.

Which is preferable? Unless some very urgent reason demands it other than temperature, the diluting with water is best, because it does not change the relative proportions of the different chemical constituents. To change them is to affect in some wise the harmony of their concerted action; to reduce or increase the amount of water is merely to make faster or slower the action of the solution as a whole. But ask your amateur what to do and he will take sides one way or the other—forgetting that there is always safety in a middle course, and that a very slight reduction of the alkali in the formula and a moderate addition of water produces a nearly ideal hot-weather developer, but will possibly require two to five drops to the ounce of forty-per-cent formaldehyde to insure freedom from frilling; and a cold hypo bath is, of course, to be desired.

So with the treatment of a developer for cold weather use. It must be borne in mind that a combination of the two methods is again practicable, and if we slightly increase the alkali in the developer and somewhat decrease the amount of water, we shall find a solution which works well within our control and yields satisfactory negatives.

So it is in plate and print washing. The amateur learns from sad experience

how easily the film separates from the glass and how beautifully those "ruffled" edges of film look around the edge of a pet negative. That is easily learned; and so is the remedy—to use ice in the water and wash by hand if possible. But how many think, in the winter time, of the action of the cold water—and ugh! how cold it is sometimes—upon the film. They forget that it contracts the little cells in the gelatine and so renders the water less able to wash out the hypo. Therefore it must of necessity require either a slightly warmed water, as one may obtain by a combination bath-tub faucet by mixing a little water from the hot-pipe supply, or else a longer washing than in summer. Of these the former is the best, provided the temperature of the water at no time goes over 60° Fahr., but if there is no thermometer handy, don't chance it. Wash an hour and a half or else wash by hand, after all, the surest way to get rid of the trouble-

So on, all other photography. instruction lae seems hered to than the Brains to grow for the use. If true, the fraterni-good pro-weak gray its general

And the splutterings and rushing about; how them? I have seen a the distance of his subject, at the proper point on the focusing scale, and afterwards get out his focusing cloth and focus the image on the ground glass by rack and pinion adjustment. Can you imagine a sillier action? I have seen a cloud picture given a long exposure with a small stop, when the treatment should have been exactly opposite, to obtain that delightful lack of detail which is one of the chief charms of cloud effects.

Now, don't for a moment think I'm one of those fellows who never make mistakes. Far from it. I make lots of them; but I try to aim at *never making the same mistake twice, on the score of ignorance*. A man may make a mistake *once* through ignorance, but if he repeats, he is to blame. I really believe every mistake I ever made the second time was because I didn't use my brains! If the coat fits me, it certainly does you in some degree.

Photography has its arbiters no less than fashionable dressmaking and

SUBSCRIBERS IN DIXIE
BY K. M. TURNER, DIXIE CAMERA CO.

through the cesses of phot-The letter of and formu-to be ad-rather spirit. are said weak want of that is amateur ty has a portion of matter in make-up. unnecessary fussings and the many are free from man carefully estimate and then fix the indicator

tailoring. But just as well-dressed people seldom go to extremes, so sensible amateurs, who use their brains in working out photographic problems, seldom adopt the fads of the extremists.

Moderation, above everything else, is the key-note of success in photography. It is the moderate-speed plate, given a moderate exposure, and then developed to a moderate density in a moderately strong developer, which, when moderately printed and mounted, comes in for the most attention and praise from the majority of people; it is the moderate, rather than the freaky, which is lasting in art, as in all else!

There is only one excuse for extreme measures in treating a negative or print, and that is to make up for some prior operation insufficiently done or carried too far. Thus in the end the general moderate balance is attained.

So take the old chemist's suggestion home to yourself—I have done so—and remember it whenever you expose or focus or develop or print or mount. That's practically the only use of brains in a formula; like some chemicals, they "should not be mixed in until the moment of using," but then, incorporated in the formula, they work wonders in its operation. The ideal photograph is the one produced with the simplest and most natural means and with a liberal supply of brains.

To make one's failures real steps toward ultimate successes—that's what brains are for!



BY FRANK E. FOSTER

THE EVENING MEAL

UTILIZING HOME-MADE APPLIANCES AND ORDINARY ROOMS FOR DARKROOM WORK

BY FAYETTE J. CLUTE

I met a friend the other day who had "given up photography for the time being"; having moved a few months previously, he had "not yet found time to fix up a darkroom." I questioned, "A darkroom?" as if a darkroom was as unnecessary as the buffing wheel of the old-time daguerreotypy. "Why!" he enquired, "don't you use a darkroom?" I told him I had not used one for the last five years, only so far as any room in the house was dark after the sun was well down.

Another friend had as an excuse for not taking his plate camera with him on his vacation, spent in one of the most picturesque spots in the northern part of the State: "There wasn't a darkroom within ten miles of the place." These and a few other occurrences have led me to believe that an article with the above title may perhaps prove of value to those who imagine that a well-equipped darkroom is necessary, if negatives are to be produced.

I wish to say right here that I am not theorizing. I have averaged fifteen 8 x 10 negatives a week for months, besides numerous spools of film and smaller plates, both for my friends and for myself; using for a darkroom either the sitting-room, the kitchen or a bedroom, whichever happened to be out of



BY A. R. GIBSON, CHICAGO

LATE SUMMER



BY DR. CHARLES H. PARKER

HIS FIRST APPEARANCE

commission at the time. I have taken a camera and a case of 8 x 10 plates into the Ozark Mountains and brought back 128 good negatives out of a possible 144, besides using a gross of 6½ x 8½ bromide paper. The only things carried in the photographic line, besides the camera, plates and paper, were a quire of orange envelope paper, a can of paraffine paint, an ounce of amidol, one of pyro, some sulphite of soda, washing soda, hypo and bromide of potassium. Not even scales or graduates were thought necessary. The only thing I forgot and really wanted was a brush to use with my paraffine paint. When I explain that the summer residence that I occupied was made of unhewn logs, unchinked, you may know that a perfect darkroom is not absolutely essential.

To begin with, I would advise every one to learn the simple trick of filling their plate-holders in darkness. After it has been done a few times, the need of a light is not felt; in fact, were it at hand, one would hardly take the trouble to light the ruby lamp after the habit of doing without has been acquired. The slides should all be placed right side up at the right hand, the empty holders to the left, and the box of plates in front. The light is then turned out and the holders filled. Should the holder contain exposed plates, they are removed in the dark, the plates being returned to an empty plate-box, face to face, as originally packed. The light is then turned on to allow the slides to be arranged, again turned off, and the holders filled as before. Should moonlight or light from the street stream in around the curtain too strongly, I throw my coat over the back of a chair and place it before me as I sit with the box of plates on my knees.

Should you find it necessary to use a darkroom during the day, make a cloth cover to go over the window of some convenient room. Make it out of two thicknesses of cloth, one black and the other red. Make it a good fit, and make it lid-shaped at the edges, inserting pieces of elastic along a portion of each side. Placed over the window it will grip the frame and make the window entirely light-tight. The addition of a few small nails or screw-eyes to engage the edge will minimize the danger of its slipping off.

When you come to develop your plates or films, the first thing required is a ruby lamp. While not claiming that a wooden box containing a candle, with a piece of orange paper pasted over one side, is the best form of lamp, I do claim that it is an improvement on the majority of the cheap lamps sold. A good candle is to be preferred to a poor oil lamp, as it does not give off the same bad odor and is much more cleanly. The objection generally made to candles is that they are liable to burn out at the wrong time. Let them burn out. I have often placed my tray containing partially developed plates in the shade of a pile of books, or on a chair pushed under the table; opened the door of my lamp and inserted and lit a fresh candle without fear of damaging the plate. The box should have holes bored near the top and bottom to allow air to enter and pass out. These openings should be at the top and covered inside with a flap of black paper, bent so as not to lie close, yet preventing direct rays from passing out. The front or opening through which the light is to fall on the tray should be covered with a piece of glass placed over it, and then a piece of ruby paper, a little larger, pasted at the edges, placed over it and pasted down. All cracks and holes in the box should be covered with strips of the black paper in which plates are wrapped.

Trays that I prefer, on account of their shape, to the best hard rubber article, I make by taking a board a little wider than one, and longer than three, of the plates I am using, and tacking a strip of thin wood all around the edge to form a rim. Strips of stout paper or cloth are glued around the corners and outer edge of this tray, a deep groove cut along the center of the bottom, to allow of the plates being picked up, and the whole then given a coat of paraffine paint, inside and out. One can develop three plates at a time just as easily as they can sit waiting for a single plate to respond to the rocking of the tray. A lead pencil placed under the center of this three-plate tray allows of its being rocked very nicely, a wave of developer gently flowing from end to end. Another advantage of the long tray is, that you can hold a plate over it for examination without fear of the dripping not falling back into it.

A graduate is another piece of unnecessary apparatus. I discarded mine for the reason that, working as I sometimes do over a carpet that is a little too light-colored to stand big splotches of pyro stains, I was in constant dread of knocking it over. It is a very simple matter to graduate the side of a bottle either with lines made with the paraffine paint or scratches from a file. Both my A and B solutions are in bottles so graduated in ounces up to sixteen. An ounce is easily poured from each bottle into a granite-ware cup, that hangs, when not in use, on a nail in the side of the box I use for a lamp. I know just how full I must make this cup, when adding water, to give me a normal developer. The two bottles stand, one on each side and close to the lamp, with their corks in, so that there is little danger of their contents being spilled.

A great convenience in developing away from a regularly equipped dark-room is an upright fixing tank. You can make one if at all handy with tools;



BY DR. F. DETLEFSEN

CHILD STUDY

but if not, a carpenter will make one for a few cents. It is merely a box a little deeper than one side of the plate, as long as the other, and as wide as desired. Grooves, to run up and down, must be cut in the inner side of the two end pieces, before the tank is nailed together, to engage the ends of the plates and keep them from touching each other. A strip of thin wood should be nailed across the bottom of the tank, to keep the lower edge of the plates from sinking into the sediment that will collect there. If an ounce of bisulphite of soda is added to every pint of a regular one-in-four solution of hypo, the bath will stay clear and do its work for about a year. This tank sits on the table beside my lamp, with a tray of water for rinsing the plates in front of it. There is then no need of contaminating the hands with the fixing bath until developing is completed. With a pitcher of water on the floor at one end of the table and a slop-bucket on the other, there is no more need of a sink and running water than there is of a fire-plug and six-inch hose.



BY DR. B. F. NOYES

PORTRAIT OF BOY

Reason it out. Suppose you use a sink with running water, how often do you use the tap? The water you draw off to mix fresh developer with is just as easily poured from a pitcher, and the rinse before fixing is just as well given to the plate by placing it in a tray of water, as it is by letting water from the tap splash all over. One should be just as capable, if not more so, of doing their developing without spilling solutions on the table or floor, as they are of washing their hands and face without splashing water over the four walls of the room. Of course, running water is handy when it comes to washing the plates. My fixing tank is carried bodily into the bathroom and the plates placed on a board with a rim of wood tacked on each side. A string at one end goes over the tap, holding the board at an incline. The negatives are washed very thoroughly in a short time. Pins driven into the board at intervals prevent the plates from sliding over each other should the force of the water lift them from the board a trifle.

A row of nails driven into a wall, in pairs, forms a better drying rack than

the regular article sold for the purpose. The corner of the plate is placed between two nails forming a pair, supporting it cornerwise, of course, but flat with the wall, allowing a free access of air to the film, which is not obtained in the ordinary drying rack. The distance between the nails forming a pair, as well as that between the pairs, is governed by the size of the plates.

It is advisable that a cover be made for the fixing tank to keep out dust. A cover for the developing tray is also a convenience. With these two covers at hand, one can leave the room or use a white light at any time desired during the operation of developing. When done, the bottles containing the developer and restrainer are laid on their side in the empty tray, the cover put on and all packs neatly away. My own outfit goes into a washstand drawer. With the most ordinary care, developing can be so carried on as to avoid soiling the table-cover or carpet in the least. A piece of oilcloth may be placed over the original spread, and as an extra precaution, a piece of thick cloth over all. There is then no excuse for damage of any kind.

Moonlight, or light from ordinary street lamps, coming in in small streams around the curtain, will do no harm unless allowed to fall directly on the plate.

REV. F. C. LAMBERT'S TABLE OF PINHOLE EXPOSURES
EQUIVALENT TO ONE SECOND WITH
LENS AT F/32

Distance of Hole from Plate (in inches)	Diameter of Hole (in inches)			
	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
5	1 min.	45 sec. min.	30 sec.	15 sec.
6	1½*	1 min.	44 min.	22
7	2	1½	1	30
8	2¼	1¾	1¼	38 min.
10	4	3*	2	1
12	6	4½	3*	1½
14	8	6	4	2
16	10	7½	5	2½
18	—	9	6	3
20	—	—	8	4
24	—	—	12	6*
28	—	—	16	8
32	—	—	20	10
36	—	—	24	12

*Shows the region of best definition

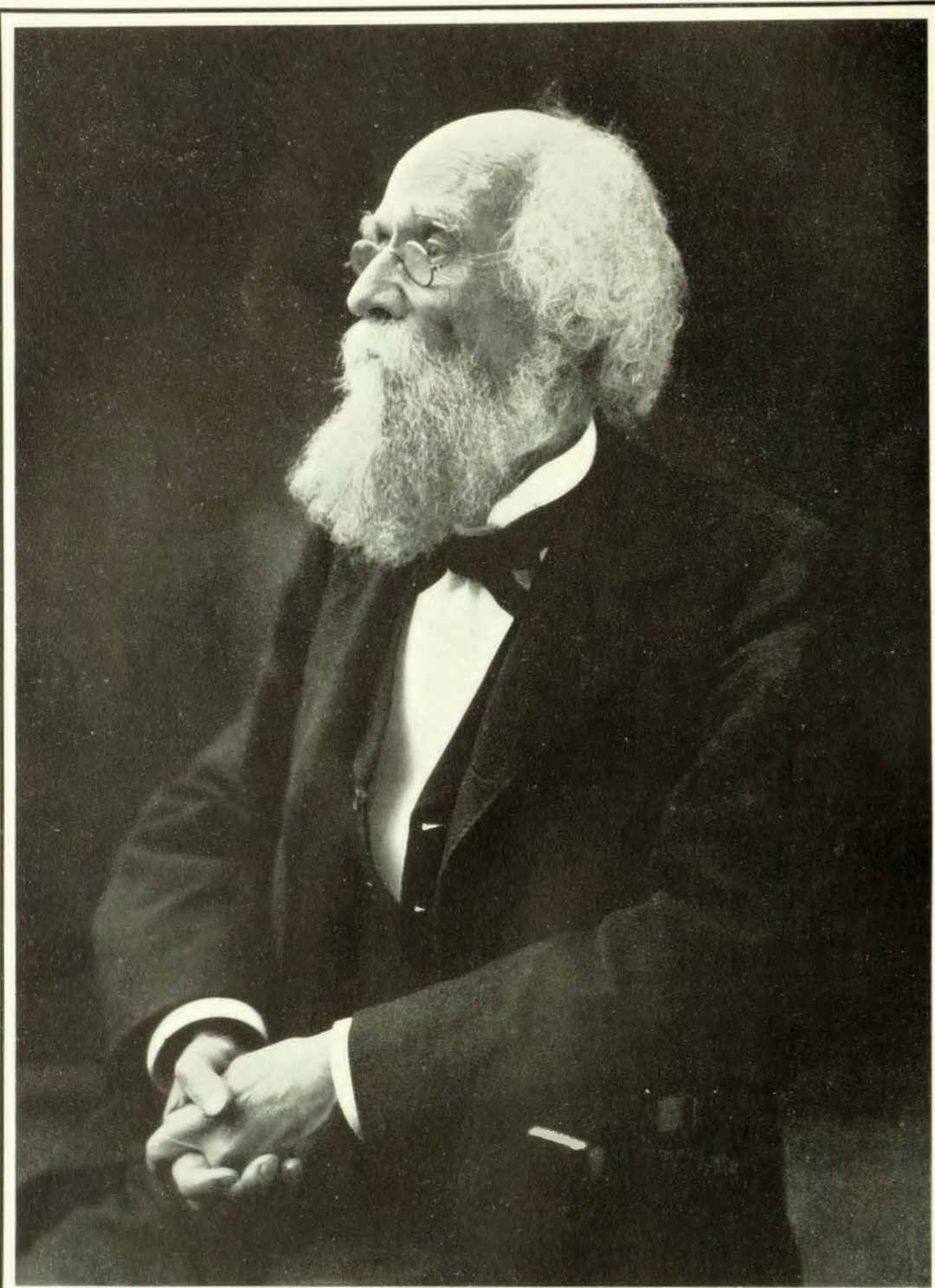


BY P. DUBRUEIL

THE BOATMEN

WORK OF FOREIGN PHOTOGRAPHERS

This month CAMERA CRAFT reproduces a picture of the French photographer P. Dubrueil, of Lille. The fact brings prominently to my mind how much we miss by not more frequently reproducing the work of continental Europe in our magazines. The French and German periodicals, especially the latter, have largely reproduced our work, and devoted their pages to an appreciative criticism of our efforts, whereas the mass of American readers are left in ignorance of the work done on the continent of Europe. The English school we have been made acquainted with. Craig Annan, Horsley Hinton, and the late P. Robinson are more or less familiar to us; but what do we know of the splendid portrait-studies of the brothers Hoffmeister, of Hamburg, and their equally powerful landscape work. Not less powerful in some ways is the work of their fellow-townsmen, R. Durhkoop, a number of whose studies were published in the May number of the *Photographische Mitteilungen*. We ought to know something, too, of Naundorff, of Berlin, and Erfurth, of Dresden. Among the lady workers, the pictures of Frau Herting, of Charlottenburg, ought to be known to us. Count von Gleichen, not long ago, produced a picture that, as a classical study of the nude, excels anything I have seen in photography. Funke, of Flensburg, has done good work; and Schmidt Diehler, of Frankfort, has given us beautiful studies of South German landscape and life. Nor should Holland be forgotten; she has an artist in J. Huysser, of Bloemendaal. We know a little of French work. Demachy, Puyo and Begue have been often reproduced in America. In Dubrueil we have a different type, somber, introspective, delighting in twilights and the mystery of evening, but withal essentially French in strength of subject, force of execution, and that classic grace which is rarely entirely absent from French art.



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PROFESSOR JOSEPH LECONTE

DIED IN THE YOSEMITE VALLEY, CALIFORNIA, JULY 6, 1901

“PROFESSOR JOE”

BY O. V. LANGE

So we all called him. Few, indeed, who, by sterling worth and kindness of nature, earn the love and reverence of a student body so completely as to warrant the use of so homely a title. But Professor Joseph LeConte was a man filled with the spirit of good fellowship, a veritable child of nature, loving all things with a love as boundless as the affection lavished upon him by the men and women of the university. Now that he has gone, those of us who knew him cannot but cherish the memory of the incidents which occurred during the last few years of his service to and for us.

It is the custom of the senior students of the university to make an annual pilgrimage to the different buildings on the campus in the forenoon of “class day.” One of the students is selected to make a speech from the steps. The first building to be visited is usually old South Hall. In this building “Professor Joe” had his study and lecture-room.

A great throng had collected and the appointed speaker was about to begin, when a spontaneous shout went up, “We want Professor Joe!” “We want Professor Joe!”

Never in the history of the university was there such enthusiasm.

“Professor Joe,” deep in preparation of a new volume to be published, heard a great buzzing noise outside but paid little attention to it. When he did not come forth, a committee was sent to invite him to make an address to the students. As soon as he appeared there was absolute stillness; his kindly words and a benediction were what the graduating class wanted, and they were satisfied.

Another impressive occasion occurred some years after. It was also on class day, the scene being in a eucalyptus grove back of the chemistry building, called “Ben Weed’s Amphitheater.” Here the junior class has a spectacular exhibition interspersed with college jokes and witticisms. On this occasion between four and five thousand people congregated in the amphitheater. The invited friends of the students, as on all such occasions, kept up a continuous conversation, each one interested in his or her neighbor. All at once there appeared in the arena before the vast concourse a white-haired, kindly-faced old man, slightly bent by the weight of years, escorted to his seat by two tall, athletic looking young men.

Almost instantly the distinguished guest was recognized, heads were uncovered, and a mighty shout went up, swallowed immediately by the college yell shouted by thousands of lusty lungs. Before the arrival of “Professor Joe” professors, regents, and even benefactors of the university had arrived and taken their seats, and were saluted by those only in their immediate vicinity.

Circumstance, place and conditions had but little to do in awakening enthusiasm when “Professor Joe” appeared in the midst of his boys and girls.

I remember giving an illustrated stereopticon lecture on the University of California at Shattuck Hall in Berkeley some years ago. There were about one hundred slides exhibited, among them being one from a negative taken the day before by a student. It was a very good picture of “Professor Joe”

standing in his lecture-room at his desk which was glistening with cut glass, silver and burnished trinkets, and almost completely covered with a mass of roses and smilax given by the students to commemorate the seventy-fifth birthday of their beloved instructor. He was standing in a characteristic attitude often assumed when lecturing; both hands far apart on the desk, body inclined slightly forward and facing the class. When the slide was thrown upon the screen, I was startled for a moment. A mighty shout of joyful recognition from hundreds of throats came so sudden that I was bewildered. It was at least five minutes before the tumult ceased.

Such are a few of the incidents that it is has been my good fortune to witness. Others who have known and loved him could add many more.

Professor T. R. Bacon, in an address before the summer school students, said: "That good, gray head to all men was a luminary that seemed touched and transformed. Why he inspired such affection by mere sight of him is easy to understand; his great intellect had for a background a simple soul like that of a child."



BY FRANK SNYDER SAD MEMORIES

THE ELEMENTS OF PHOTOGRAPHIC EXPOSURE

BY F. M. STEADMAN

IN THREE PAPERS—SECOND PAPER.

A piece of sensitive paper does not and cannot measure the value of a source of light, even with practical accuracy, unless that light be very condensed as to the "space" it occupies. A simple experiment will show the wonderful change in the light intensities and in the complete scale of contrasts on an object *in the same light* as it is influenced by the point of view. Stand against the inside casing of a window and turn toward the opposite casing, at the same time slightly inclining the head. Do not look for any special style of lighting, as it is not necessary in the experiment.

In the hand from the window hold a small hand-mirror and look at your face in it, turning it toward and away from the window as far as the arm can swing and the eyes follow without moving the head. Note how low the color of the face is when the hand holding the mirror is toward the light, and how the highlight is raised and the contrast is increased when the mirror is brought into the room. Examine mainly the nose and all the front of the face, as those parts are always visible as the mirror is moved from side to side.

Other objects may be examined instead of the face by sliding a table up to the window and placing upon it, in front of one casing, at a distance equal to the width of the window, articles of various forms, colors and of surfaces, as to smoothness and polish. Include a teacup and a rough stone. Have a cardboard or large book in hand with which to shield the eyes from the window itself, and examine these articles from every accessible point. This experimenting will prove conclusively that when one has measured as near as possible with an exposure-meter the intensity of the light that falls on an object, the real analysis of the scale of contrasts is only just begun. When an average object is placed as indicated above and analyzed from a point near the window, the scale of contrasts is nearly normal.

This truth is what induced James Inglis, in his "Artistic Lighting," to say that a photographer should burn his backgrounds. When this *same object in the very same light* is viewed from a point in the room opposite the window, the scale of contrasts becomes too violent to be photographable. Both conditions are made by the same laws, but photography is only a process, remember, and is limited in what it can do. We use it to create a scale of translucencies on a shield, which, when a piece of sensitive paper is exposed to the sun through it, will keep certain parts of the paper almost to its original color, while other parts are fading to a black that we choose to use for our shadows. Now if this contrast on the subject is greater than photography can reproduce in the negative, normally and easily, it is our business to know it and, by the knowledge of the same law that made it so, modify it to the scale of contrasts that we know to be normal.

This, in practice, Mr. Inglis knew very well to be true, as in the chapter on Rembrandt lighting he says that it may be advisable to soften the direct light from the top, and also to increase the brightness of the shady side of the face by reflection.

Now, in order to prove that a piece of flat paper cannot measure the

intensity of a broadly expanded light, one may make a simple experiment with solio. Stand on the inside of a door or window through which the sun is shining. Wrap a piece of the paper around a finger, or better, around something of larger size, as a round bottle or ball, and expose it to the rays of the sun for thirty or forty seconds. Now lay it out flat, and notice that the sun tinted it most at the point exactly facing it and less at the sides, which were at an angle to it. Remember the objects examined by the window, and note that those surfaces that gave the brightest intensity to the eyes by reflection showed the least tinting by absorption, which proves that the laws of absorption and reflection are exactly opposite in their working, and that they cannot be measured by a piece of sensitive paper.

We see, then, that a flat sensitive surface measures part of a broad light by the absorption of those rays which strike it at, and near to, a right angle, but indicates almost nothing of the values of the outer margins of that light nor of the changes produced by reflection as determined by the point of view, and nothing whatever of the varying actinic value of surfaces in the same light and point of view as influenced by the different colors of surfaces in nature.

There is another element of exposure that a meter cannot measure, and which the literature on the subject hardly mentions, but which is, however, of great importance. This is the greater or less amount of internal bellows illumination as caused by the area of those parts of the image on the plate which are of great intensity. Other things being equal, a plate on which was focused a very small image of a sun-lighted white house, backed by a tall, dense grove, would have a less intense illumination on those points constituting that image than if the camera were brought close and the image of the house made to nearly cover the plate. The difference would be the greater internal illumination caused by the larger image, which light, being thrown back from the bellows to the plate, not only raised the intensity of the points but tends to reduce the contrast of the intensities of the image by illuminating equally all of its points. For this reason a small bit of an intensely lighted landscape or marine could be given a longer exposure if photographed through a window with the camera against the opposite wall, than it could if the camera was directly in the window or out of doors. This is the main reason why it is so easy to over-expose a birdseye view or marine view having very little shadow.

To get a vivid mental impression of this law as it influences the eye and plate, stand a step or two inside of a window and in front of one casing. Look at the casing with one eye and gradually pass a cord in front of the eye shutting out the light of the window. As soon as the light is all shut out of the eye it can distinguish the color and texture of the casing, wall, etc., which when the light shines directly in the eye can hardly be seen.

This is occasioned by the image of the window on the retina throwing light promiscuously around inside of the eye, and in this case the reflected light from the window image in the eye is so much brighter than the focused image of the casing that the latter is practically annihilated. Under such conditions a clear picture of the wall and casing could not be procured by any kind of exposure or manipulation, nor by any kind of the so-called "non-halation" plates on the market.

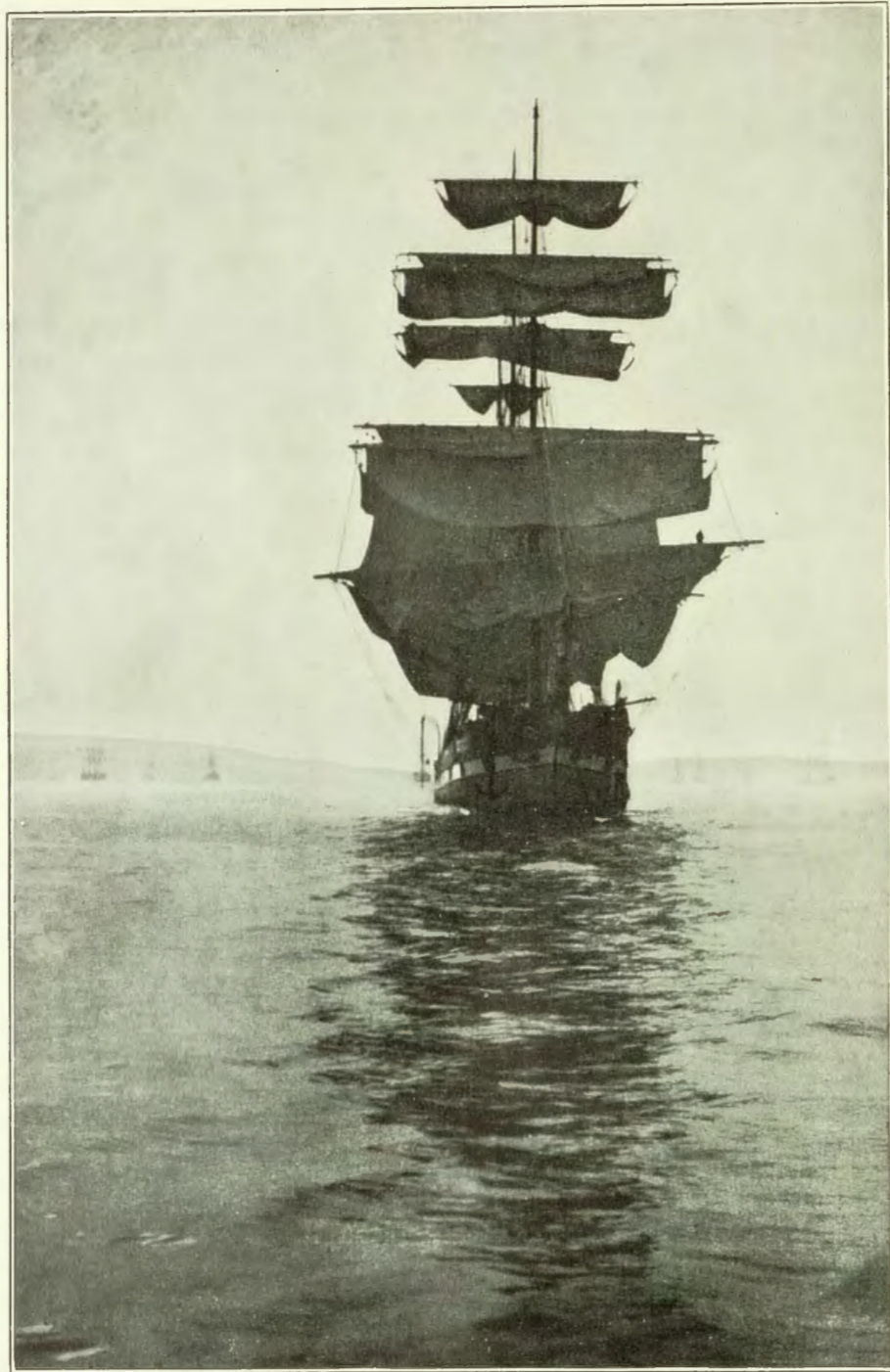
The strength of contrast of an optically focused image *must* be reduced more and more as it is equally illuminated in all parts by diffused light. Another source of bellows illumination, even more active than that mentioned, is that part of the image that enters the lens at such an angle as to strike the bellows folds instead of the plate, and which is reflected to the plate more or less evenly. With a lens having an extended circle of illumination and a subject that is bounded on its sides by strong illuminations, this light in the bellows will fog a plate with all certainty, especially if it be very slightly over-timed. However, this is a condition that must be considered only for the purpose of avoiding. It has to do, not with the time of exposure, but with the conditions under which the exposure may be properly made.

A piece of sensitive paper so shielded as to admit light from an exact fractional part of all space would be a scientific key to the light condition by giving its "unit-value," while the number of "space-units" or the "space-size" of that light is a problem in the measurement of space. This is the law of all illuminants, whether they furnish light directly or by reflection.



BY G. F. SNYDER

A BREATH OF AUTUMN



BY GEORGE W. REED

ON QUIET SEAS



BY T. C. SCHWERIN

"DON'T BOTHER US"

OLD PRINTS ON THE CAMERA CLUB WALLS

BY W. B. WEBSTER

The old-time members of the California Camera Club were quite forcibly reminded of the rapid flight of time when the Print Committee began to rearrange the old pictures upon the walls of the clubroom recently. Many of these pictures had hung for years in their position. Gradually members became accustomed to them and they attracted little, if any, attention; but when the committee rearranged the pictures, dusted them and hung them in the proper light, they took on new beauty, and ever since the first of the year have attracted and held the attention of visitors.

Many are the comparisons between the examples of the old photographs and those of the new. In spite of the great advance made in technical equipment and photographic material generally during recent years, there has not been a corresponding improvement to be expected in the work, as turned out by the amateurs of today. Such is the general opinion of the old-timers.

Going back to the work of nine or ten years ago, you will find on the club walls two splendid animal studies, the work of Mr. Gambier Bolton, of England. Mr. Bolton's animal pictures are known throughout the world, and few, if any, photographers have had the experience that he has in this class of work. One of the pictures is a study of a head of Old Ben Butler, at one time chief of the buffalo herd in Golden Gate Park; the other is a remarkably strong study of an elk, full of the spirit of wildness found only in the West. Both of these



BY GAMBIER BOLTON, E. Z. S.

OLD BEN

prints are in soft sepia tones, and have lost none of their richness of color and softness of detail. The pictures were made by Mr. Bolton during a visit to the Coast some years ago, and were presented to the club by him in return for courtesies extended.

Another old picture that is attracting much attention is an enlargement by Mr. T. C. Schwerin, it being an unusually clever treatment of a difficult subject. The arrangement of the background in this picture is excellent, and the composition is such that it has had few equals since its production.

Geo. W. Reed's "Quiet Waters" is a picture that never fails to attract the visitor's eye. The bold outlines of the ship and the queer old-fashioned frame seem to fit together as no other picture on the club walls.

There are other old pictures of equal merit in the clubrooms, and their resurrection has done much during the past few weeks to furnish food for discussion.



BY GAMBIER BOLTON, E. Z. S.

ELK

TONING BROMIDE PRINTS

SIMPLE WRINKLES THAT ENTER LARGELY INTO THE SUCCESS OF THE BEGINNER

BY F. E. MONTEVERDE

Photographic enlargement has now attained such popularity both in the ranks of professional and amateur workers that any hints or suggestions that will help the latter, at least, can but prove acceptable. It is the intention of this article to give in a few lines the experience of one who has been through the mill; has met the usual first setbacks to the delver in the advanced manipulations of photography, and has happily emerged after many failures with the experience that is always "bought and not inherited." Still it is the hope of the writer that to those ambitious amateurs struggling to attain perfection in this, one of the most interesting of photographic manipulations, that the application of these few hints will help them to sooner attain the goal of success, saving themselves much time, worry and expense.

It is here assumed that the reader has mastered the necessary steps in the production of a creditable enlargement, for it is only the toning of the prints that I wish to make clear to the worker. It may not be amiss, however, to give a few hints as to the developer used in producing the print; it will also be understood that the brand of paper that this article refers to, is that shown to the trade as Royal bromide—truly a royal paper giving regal effects—but oh! shades of departed kings!—it can also be made to give nightmares. In the formulæ suggested by the manufacturers that for amidol is the simplest and gives most satisfactory results. The blacks are of a beautiful velvety texture, and the intermediate shades partake of a blue-black tone, its only objection being that it stains the fingers, but with rubber cots this can be avoided. For those not having this formula I give it here. The ingredients are to be dissolved as enumerated:

Water.....	10	ounces
Sodium sulphite, crystals.....	½	ounce
Amidol.....	40	grains
Solution bromide of potassium, 10%.....	10	drops

This developer will not keep, therefore it must always be made fresh, and should be discarded as soon as it turns dark, being liable to stain the prints. It is poor economy to use a developer until it does.

Another developer I have found to give beautiful effects on bromide paper, especially when developing for toning the print, is tolidol. It has also the advantages over amidol, in that gives more latitude, both in the exposure of the print and in its development, advantages of the utmost value when manipulating large prints. It will not stain the fingers, keeps well and the old developer, if not too far exhausted, can be used for developing hard or over exposed dry plates or films.

Tolidol gives rich, warm blacks which are the most suitable for after-toning, giving exceptionally brilliant shades of brown, from warm black to the coldest sepia. The best formula for this developer is somewhat complex, but once prepared it is easy to handle, especially as it keeps well if the bottles are kept in the darkroom.

A.	
Tolidol.....	60 grains
Water (distilled).....	4 ounces
Sodium sulphite, crystals.....	¼ ounce
B.	
Sodium sulphite, crystals.....	½ ounce
Water (distilled).....	4 ounces
C.	
Sodium carbonate, dry.....	½ ounce
Water (distilled).....	4 ounces

For use, take A, 2 parts; B, 1½ parts; C, 2 parts; water, 6½ parts, and add 10% bromide of potassium solution in the proportion of 2 drops to every 3 ounces of developer.

Having made the enlargement, that is, having developed, fixed and washed the print for, say, ten to fifteen minutes in running water, or in four to five changes, it is ready to immerse in the cold-toning solution, which should never be less than one to two inches deep in the tray. The print or prints should be handled constantly for the first four or five hours. The exact manner of handling the prints is fully set forth in the pamphlet sent out by the manufacturers of the paper, and close adherence to directions will insure success. For the formula and manner of making the cold-toning solution I cannot do better than refer the reader to the same publication, for up to the point of making the solution and immersing the prints in it all is plain sailing. It is from here on that failure usually comes to the inexperienced worker. He finds that his prints, in the summer, tone in an incredibly short space of time (the usual time is from eighteen to twenty-four hours). His tones, where the prints have not entirely bleached out, will be of a most striking yellow-brown shade, very much like, and undoubtedly as much appreciated at the moment as the color of the proverbial yellow dog. Again, in the winter months his prints will not tone at all. He will leave them in the solution for days; aye, for a week have I known them to stay there, and at the end of that time come out as innocent of tone as when first put in.

It is just these obstacles which, meeting the ambitious worker at the very threshold of the process so enthusiastically taken up, tend to discourage and cause him to abandon what in time would prove more interesting and entertaining than the mere production of the negative; and it is just to help him over these difficulties that this article has been written. The causes for his failures are simple and evident, but he does not know it then, and has, consequently, plunged into them without the experience that comes later or not at all.

In the summer months toning is most successful, temperature having a great deal to do in accelerating the chemical action of the process. On the other hand, the cold of winter retards, and even paralyzes, the action of the solution, making it, to a great extent, non-active. But the principal cause of failure consists in using a freshly made or raw solution, *i. e.*, a solution that is unripe; for, like wine, the toning solution improves with age, and the older it gets the better it is, for it is with an old, aged and ripened solution that the richest, warmest and most brilliant tones are obtained. So, if you have no old solution you must simply put off your toning until you have. Toning should

not be attempted, if one desires the best results, with a solution that is not at least a week old, and the older the better.

I have two gallons of toning solution, the original base of which was made over two years ago. As it has been evaporated and absorbed by the paper, I have replaced it by new stock, but always in such a small percentage to the whole that it has only helped to give it new vigor and activity without impairing its value. Such a "mother solution" is worth waiting for. Prints immersed in it will not bleach, the ripening softening the harsh effects of the hypo, which, when raw and fresh, so quickly attacks the silver of the print that its dissolving action is greater than its toning quality.

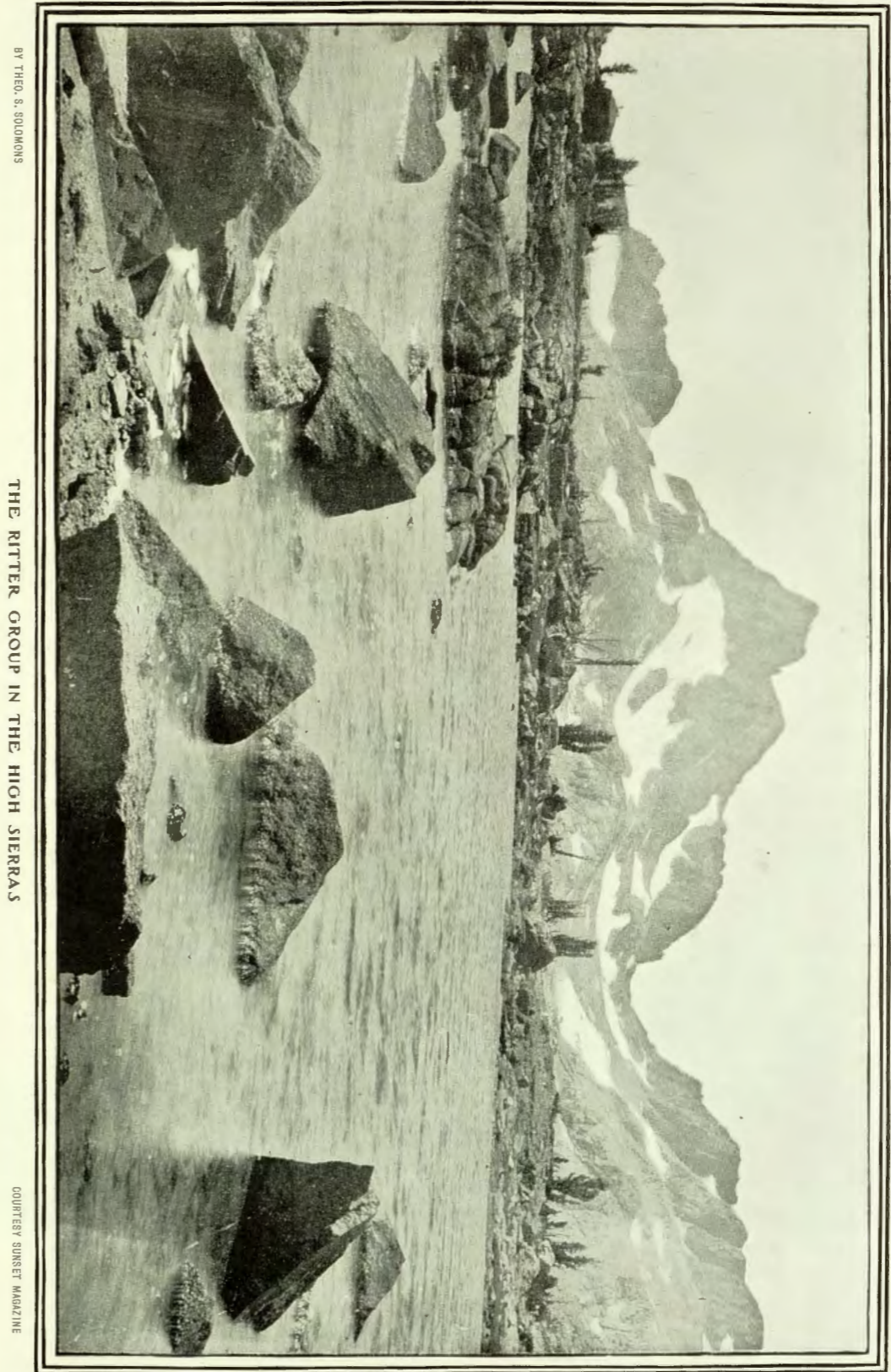
Given the old and ripened solution, in the warm atmosphere of the work-room in summer, say between 70° and 80° , the process will reach its climax in from eighteen to twenty-two hours. After this time the toning action ceases and bleaching commences, but so slowly that it can be controlled and stopped, when the desired shade of brown is reached, by plunging the prints into running wash water. They should remain at least two hours in the wash water.

In winter we must, to obtain equal results, have the temperature about the same. This can be readily accomplished by artificial means. My darkroom is quite large and with the use of a small gas stove I have no difficulty in obtaining any even temperature. I keep the door partially closed, but not sufficient to prevent a good circulation throughout the room to carry off the gas fumes from the stove. With the temperature about stationary at the required degree, the toning takes place just as it does in the summer time. Another way is to place the toning tray in the kitchen after the supper hour, keeping up a banked fire in the stove during the night. In this way a great deal of time is thereby gained. However, the tray must be protected from any soot or dust that might otherwise fall upon it while in the kitchen.

The reader will now see that the two requisites for the successful toning of royal bromide are, that the solution be ripe and aged, and that the temperature of the room in which the process is carried on be less than 70° Fahrenheit. Amateurs and many professionals still adhere to the old and dangerous way of drying their prints, by hanging them with hooks over a line; dangerous, in that large prints, of their own weight, tear off at the corners, perhaps spoiling the print or necessitating trimming down beyond what was originally desired. Unsatisfactory in that the print does not dry spontaneously but dries first at its upper edge, the water gradually dripping down, thus keeping the lower edge wet much longer than the upper, causing it to kink and curl.

Prints, no matter how small, should never be hung to dry, but should be laid flat directly from the wash tank upon and between sheets of lintless blotting paper, the best grades of which can be obtained at the dealers in photographic materials. In the blotters they should be gently squeegeed with the roller and placed face down upon other dry blotters and left to dry, all of which takes less time than hanging them up, and is so much superior in every way that once tried you will never have any more use for your hooks, except to hang up the damp blotters to dry.

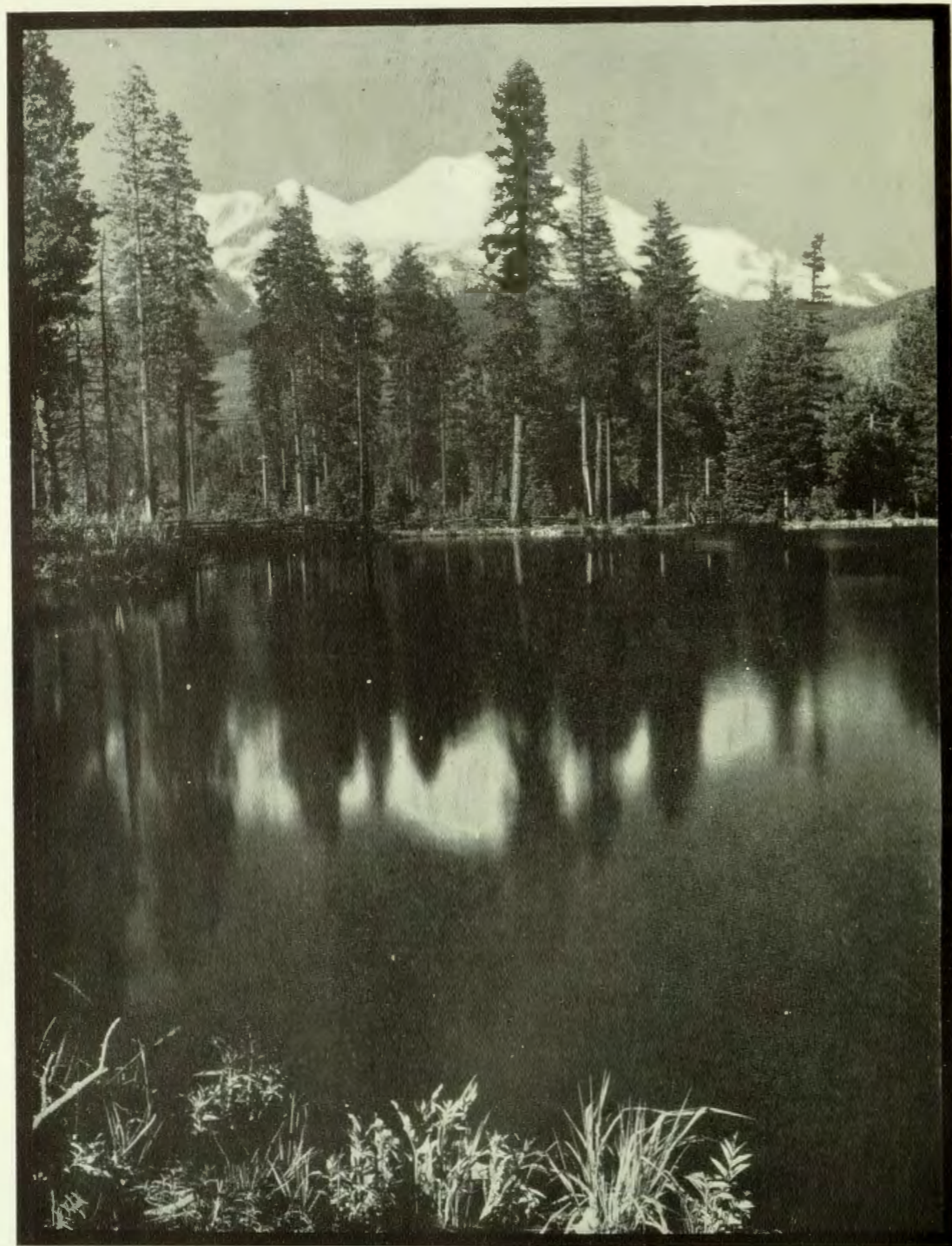
Never allow yourself to hurry through your work. You must be thorough if you expect to produce absolutely permanent work.



BY THEO. S. SOLOMONS

THE RITTER GROUP IN THE HIGH SIERRAS

COURTESY SUNSET MAGAZINE



BY LEE ROY LEE

SHASTA FROM STEWART LAKE

Summer at Shasta.



Illustrated by Lee Roy Lee

BY FAYETTE J. CLUTE

As a paradise for the photographer, the foothills of Shasta and the Siskiyou Mountains have no equal. Sisson's is, perhaps, the most advantageous rendezvous from which to visit the famous points of scenic interest about Mt. Shasta and the Sacramento Canyon. Here Shasta looms up grand and sublime, the Strawberry Valley quiet and serene. The new tavern is all that heart can desire in the way of a hostelry, and the same old-time hospitality that made the original Sisson's Tavern famous, still prevails. From here, no doubt, the best trail leading to the summit of Mt. Shasta has its beginning. Starting at noon, the timber line at an elevation of 8000 feet is easily reached by nightfall. The other 6442 feet of elevation is a more serious matter. The photographic tourist will undoubtedly satisfy himself with the grandeur nearer at hand, leaving this work to the enthusiast in mountain climbing, although the ascent is neither dangerous nor excessively trying except to those with weak lungs.

Two miles above Sisson's, at Upton, the McCloud River Railroad connects with the Shasta Route; winding around the foothills it gradually works its way up the steep inclines until it reaches an altitude of nearly 5000 feet. On the eastern slope the descent is more precipitous, being accomplished by means of two imposing triumphs of engineering skill in the way of monster "switch-back" curves. Ascending the ever-changing view is one to charm the eye, each succeeding mile presenting an ever-varying panorama. The descent into the valley of the McCloud is even more inspiring. Vistas of imposing mountains clothed in magnificent conifers greet the eye, while below the beautiful forest-clad valley of the McCloud lies like a carpet of green. McCloud, the terminus of the road, is a model lumber camp; sewerred, and lighted by electricity, employing during the lumber season nearly 1000 men.

From the earliest days the head waters of this beautiful river have been accorded the elysium of the fisherman. Her cool and sparkling waters have charmed the disciples of Izaak Walton as has no other of the resorts for which the northern counties of the State are famous. Here the greater portion of the volume of water that forms this tumbling, foaming mass gushes suddenly forth from the face of a solid lava formation, in a roaring sheet of water seventy-five yards wide. Below, the three falls, their rugged beauty almost indescribable, lie within a mile or two of each other. At any point in the entire ninety miles of her length, the stony canyons, rocky ravines, abrupt bluffs and wooded



BY LEE ROY LEE

SHASTA FROM CASTLE LAKE

valleys that form her bed, so combine to please the eye that Nature, in all her picturesqueness, seems to have outdone herself.

At Mt. Shasta Camp, a village of some size, composed of cottages of substantial build instead of the tents that the name suggests, Mt. Shasta is seen at its best. The village stands on a high plateau at the upper end of the Strawberry Valley, only a short distance from the celebrated Muir's Peak, or Black Buttes. To the west are the Scott Mountains, rising to the height of 9000 feet. From the main peak of this range three rivers—Shasta, Scott and Trinity—take their rise. To the southwest the towering, pinnacled heights of Castle Crags loom up above the magnificent pine forests that enshroud their base.

The entire Canyon of the Sacramento is one continuous intoxicating dream of beauty. The Shasta region, with all its wild picturesqueness, is all around. Canyons carved by the glaciers of a former period are at hand. Granite spires lift their majestic heads at one point; basalt cliffs rise in terraced heights at another. Silent lakes lie to the north; sounding waterfalls make music in the canyons below. Beds of lava and caves of ice are next-door neighbors in this wonderland of nature. Cliffs, whose beetling brows frown back upon the pine-clad palisades directly opposite, lend majestic, awe-inspiring qualities to scenery that knows no equal for grandeur, sublimity and variety.

Seventy miles above Sisson's, near the border line between California and Oregon, are situated the celebrated Klamath Hot Springs. Here are located the famous Klamath Mud Baths, where the Indians were wont to rendezvous from the entire northern territory, to secure the benefits of their highly medicinal properties in the alleviation of their various ills. Here mountain peaks,

snow-capped and majestic, rising above their less lofty neighbors, clad in green, form a vista at once restful and magnificent.

On the summit and just across the line in Oregon, twenty miles above Klamath Springs, is situated Siskiyou. Located on a level plain that overlooks the country in every direction, one easily reads the application of the Indian name for council grounds which it bears. Here the powerful Shasta and Klamath tribes exchanged their friendly offices with each other, and with their more warlike brethren of the Rogue River country when at peace. Just at the foot of the range lies Ashland, the principal settlement in the Rogue River Valley. Near here Pilot Rock, the most southern pinnacle of the Cascade Range, rises a rugged almost solitary shaft of over 6000 feet elevation.

Want of space does not permit of doing homage to all the points of interest along this "Shasta Route" through the Shasta country. A much more facile pen than mine could hardly do justice to the beauty, the sublimity and the grandeur of it all. Unlike some other beauty-spots of the wondrous West, its "season" is not limited to a few short months. With the exception of the few later points mentioned, the "season" is practically continuous—a few weeks' snowing bringing crowds from the less-favored cities lying to the south, to enjoy the exhilaration of the sleighing amidst the grandeur of the scenery, made still grander by the mantle of snow that covers all. The photographically-inclined tourist, particularly if he be one of those whose vacation has been delayed, should visit Shasta if only for a week, and feel that in his case at least the delay was far from being a disadvantage.



BY LEE ROY LEE

SHASTA FROM SUMMIT LAKE

CAMERA CRAFT

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VOL. III SAN FRANCISCO, CALIFORNIA, AUGUST, 1901 No. 4

Intelligent observation has been responsible for many a prize-winner.

Closely following the successful transmission of pictures by wire PICTURES comes the announcement that portraits have been flashed across THROUGH space without the aid of any connecting medium. The experi- SPACE ments leading up to this remarkable result were conducted by the New York *Herald*, the first of the newspapers to realize the value of Signor Marconi's system of wireless telegraphy.

About two years ago the *Herald* brought to the attention of the world an instrument invented by E. A. Hummell, of St. Paul, by means of which pictures were transmitted by the regular telegraphic wire circuit. Since then the telediagraph, as it was called by the inventor, has been practically employed in the transmission of pictures of general news interest from one city to another.

Then come wireless telegraphy and the rapid strides in its development, culminating in wireless reports of the international yacht races, by means of which the *Herald* unmercifully scooped the other New York papers.

It was by an ingenious combination of the possibilities of wireless telegraphy with those of the Hummell telediagraph that resulted in the successful experiments recently conducted. The difficulties to be overcome in perfecting a practical system by which pictures can be sent through the air at a distance sufficient to warrant the trouble and expense incurred are enormous. However, it is the delight of latter-day scientists and inventors to overcome insurmountable difficulties, and within the next few years we may expect to see in the morning papers photographs of events which transpired across the continent the day before—pictures transmitted without the aid of wires.

The St. Louis "Post-Dispatch" of July 21st, announces that the Seed, Cramer and Hammer Dry Plate Companies, of that city, have consolidated under the leadership of Mr. George Eastman, of the Eastman Kodak Co., and Mr. Chas. Abbot, of the Aristo Manufacturing Co., of Jamestown, N. Y.

Should this deal go through, it would practically control the dry plate output of the world. The proposed capital of the great company will be about \$30,000,000. In spite of the tremendous sum named, and the prestige belonging to the firms interested, it will hardly be possible for the new trust to absorb the eight or ten smaller

companies that have established a reputation of their own, and always found a ready market for their plates.

THE SULTAN'S CAMERAS The English photographic press is actively roasting the Sultan of Morocco for indulging in what is termed "a piece of senseless extravagance." It seems that his Majesty, somewhat after the fashion of effete monarchs of the East, wished to buy two cameras finished in a style befitting his position in life. The order was placed with an English manufacturer through some oversight on the part of the American trade agents, and, if we believe our English contemporaries, the cameras are truly things of beauty and a joy forever. One of them is finished in "hall marked 18-carat gold," while the other is constructed principally of "hall marked silver." The cost of these barbaric instruments is stated to be \$15,000. After entering fully into a description of the instruments, *Photography* says:

We do not propose to give the maker who has had this melancholy form of notoriety further advertisement by mentioning his name, but we will do him the justice of admitting that not all of his cameras by any means are specimens of such monumental folly. This kind of display is to be condemned on every count. It is anything but productive outlay. Even the belief that it finds work for the workingman is tempered by the reflection that the same amount of money expended in other directions would find continuous rather than temporary work. No one condemns a reasonable amount of state and sumptuary in a monarch, but the good that might be done in Morocco by money wasted in this and similar ways renders its reasonableness somewhat of an open question. When one thinks of the destination of these instruments, the chances that a good picture will ever be obtained with their use, in spite of their enormous cost, seem very remote.

The Honolulu "Commercial Advertiser," in referring to the work of Mr. F. W. Dyson, a British astronomer, calls him a "heavenly photographer."

Active preparations are now being made for the Second San Francisco SALON Photographic Salon. Committees have been appointed for the pre-WORK liminary work, and before the end of the month the announcements will be mailed. The elimination of the prize feature will do much toward attracting a class of photographers who did not exhibit at the last salon. Gradually California is beginning to be regarded as occupying a distinctive position in photography, and the Eastern workers who entered the last exhibition were so pleased at the treatment accorded them that they will do much to further the interests of the next salon.

The successful work of the committee last year will be an object lesson to the new committees, who will undoubtedly try to improve upon last year's operations. The printed matter will be even more beautiful, and the catalog will surpass that of 1901.

Mr. J. C. Strauss, of St. Louis, one of the leading photographers of the country, has suggested to the management of the St. Louis fair that a pavilion to be devoted wholly to photography be made one of the features of the exhibition. "Camera Craft" heartily endorses this suggestion, and promises the support of the Western photographers in furtherance of the plan.

A PHOTOGRAPHIC COMMENTARY

BEING A CRITICAL DIGEST OF
RECENT WORK
CONDUCTED BY H. D'ARCY POWER, M. D.

LUMINOUS PHOTOGRAPHS

Mercator has recently given a method of producing the above by the carbon process that is interesting if nothing more. It is dependent on the fact that certain substances, notably calcium sulphide, are luminous in the dark. A paint was, and probably still is, made of this salt for painting the surface of watch dials, match-boxes, bell-handles and other objects whose position in darkness it is useful to know. Now, if a carbon tissue be made with calcium sulphide in place of pigment and printed in the ordinary way, it is clear that if a negative were used the shadows would be more luminous than the high lights, as they would contain the greatest deposit of the sulphide. Therefore the print should be made from a transparency. Mercator advises a thick coating on celluloid, the positive being printed through the celluloid (by the process I described in CAMERA CRAFT last year). The coating formula given is:

Gelatine.....	9 parts
Luminous paint (calcium sulphide).....	5 parts
Potassium bichromate.....	1 part
Water.....	100 parts

I see no reason why the tissue should not be made without the potassium bichromate and sensitized when required. It is hardly necessary to say that the picture requires exposure to sunshine or strong diffuse daylight in order to be luminous at night, this luminosity only persisting a few hours, but is capable of restoration by fresh exposure. Lastly, it is not an easy matter to coat celluloid with gelatine. The celluloid needs to be pinned down on a leveled board, and a fairly thick layer used.

HOLDING AND WASHING FLAT FILMS

I have been using flat films (with much satisfaction) and found it necessary to solve two questions—how to retain them in my plate-holders (Premos) and how to wash them. I knew that flat film carriers were obtainable, but that entailed waiting, so I tried putting them in the holder by pushing them down behind the spring that forces up the plate, and so far, after a number of exposures, I have not met with a case in which they have

become displaced. For cut films (they are made of heavier celluloid than roll films) to float round in a print washer striking one another with their edges is disastrous, so I fixed them with a couple of thumb tacks on a board and floated them face downward in the bath. Where large numbers are to be dealt with at once this would mean too much surface space. In such cases pinning each film to a cork, as a buoy, a method recently suggested by a writer in the *English Amateur Photographer*, would doubtless give good results.

FIXING VELOX

Dr. Liesegang, in a recent number of *Gaedicke's Wochenblatt*, writes on the fixing of Velox and similar papers. He maintains that through wrong procedure the whites are often degraded, and minute details in the high-lights destroyed, and advises as the best procedure two baths—one a five-per-cent alum bath, and the second an acid bath, consisting either of

Sodium sulphite.....	25 grams
Water.....	1 litre
Strong sulphuric acid.....	3 c. c. m.
Slowly added, to which add	
Hypo.....	100 grams
or	
Metabisulphite.....	50 grams
Hypo of soda.....	150 grams
Water.....	1 litre

The *Photo-Miniature* has devoted its June and July numbers to Telephotography and Pinhole Photography. Both books are likely to make converts to their respective subjects. So far as I have seen reproductions of long-distance work, pictorial effect has been singularly absent. Whether on account of the tastes and limitations of the producers or by reason of inapplicability of the method I know not. The illustrations in this last little book are cases in point; they illustrate the great value of the telephotographic method for bringing out architectural detail, etc., but they have no pictorial interest. If men of artistic tendencies are to be tempted to buy expensive apparatus it will be necessary to show them that they can make pictures therewith as well as secure the time on a distant town clock. Far otherwise is it with the book on

Pinhole Photography. The beauty of gradation and charming sense of atmosphere in the accompanying illustrations tempt one to start making pin or rather needle holes right away. These lensless photographs seem to solve the question of fuzzy versus sharp in the most perfect manner; they are never severely sharp, and yet have a strength in the foreground subjects that is almost stereoscopic.

Reducing Contrast: Speaking of gradation brings up the question of excessive contrast. The *Amateur Photographer* (English) gives the following procedure, which I do not recollect having previously read: "The negative is coated on the glass side, when thoroughly cold, with a matt varnish (below is given a suitable formula), applied in exactly the same manner as any of the commercial cold-negative varnishes (that is by flowing, and not by means of a brush). It should be stated that upon the quantity of benzole added to the following formula will depend the quality of the matt varnish obtained. Where the quantity is large the matt surface will be rough and very coarse, naturally very fine when it is present in very small proportion, though the formula as written is about the best for the purpose now mentioned:

Gum sandarac.....	90 grains
Ether.....	2 ounces
Gum mastic.....	20 grains
Benzole.....	1 ounce

This matt varnish will firm up in two or three minutes and in ten minutes' time will be ready for the next operation, for which we require any of the quick-drying, cold-negative varnishes now on the market. The negative is placed glass side uppermost on an ordinary retouching desk, and the heavy dense parts are gone over by a fine camel-hair brush containing the cold-negative varnish. The worker will not be long in detecting a difference in the contrasts, which will become more harmonious. Should the prints obtained from this negative still be harsh, then it will be necessary to go over the shadow portions of the negative with a brush containing a thin, weak wash of Prussian blue, exercising care that only a thin coating of color is applied."

PRINTS ON GLASS

To make a transparency for solio or other gelatine paper may sometimes be desirable. The *English Photographic News* gives the

following procedure: "The print must be printed much darker than usual; it should, in fact, be only possible to distinguish the details in the high-lights, if the results are to be used as transparencies. The prints should be toned and fixed as usual, and then plunged for half an hour in a one-per-cent solution of formaline, and then rinsed. The glass on which they are to be transferred must be coated with gelatine, rendered insoluble, and the easiest method to obtain such is to fix an unexposed plate, or dissolve the silver from an old and useless negative, then immerse in a five-per-cent solution of bichromate of potash, and dry and expose to the light, and then wash well. The print should be well squeegeed to the wet gelatine, and placed under a weight under some sheets of blotting paper for an hour or two, and then immersed for a minute in cold water, and, finally, in water heated from 80° to 85° C. In a very short time the paper may be lifted at one corner and pulled off, when, after a short rinsing in cold water, the picture will be ready to be dried."

From the same source I cull the following note that promises to be useful. I would suggest that a few drops of ether on a tuft of cotton would more easily and safely remove the oil than ammonia.

"Most amateur photographers have tried local reduction or intensification on negatives, and have been exasperated at the plate being spoilt by the work going farther than was intended—the chemical solutions spreading beyond their limits. The use of olive oil will prevent this. Take a fine camel-hair brush and dip it in the oil, then wipe lightly with a rag, and with the moistened brush go carefully, and most exactly, round the part to be locally treated. If little oil be used, the limitations can be most exactly marked, and subsequent solutions supplied without the least risk of spreading where not wanted. Weak ammonia will finally remove the oil."

COPYRIGHT

All amateurs who produce work for reproduction or exhibition should copyright the same. The *Photographic Times* for July contains a most valuable paper on the subject with exact instructions for would-be copy-rightists. Mr. W. A. Miller, a responsible official of the Copyright Department, is the author, and the accuracy of his views is sustained by the head of the department to whom the manuscript was submitted.

WITH THE AMATEUR

A DEPARTMENT FOR THE BEGINNER WITH
A FEW SUGGESTIONS FOR THE STUDENT.

CONDUCTED BY FAYETTE J. CLUTE

OUR POSTAL CAMERA CLUB The first album with the accompanying club letter containing route list, proposed rules and the criticisms of the individual prints by Professor Lange, started on the route July 3d, just three days late. Thirty members are represented. There are four or five on the waiting list, and should a few more of my readers signify their desire to join, by promptly sending in two or three prints, I will start two albums September 1st. This will allow of better routing and quicker trips. Thirty members are, no doubt, too many for an album expected to make the trip in one month. Very gratifying are the kind expressions of appreciation that reach me as the album goes from one to the other of the members. Limited time may prevent my answering in all cases, but the letters are none the less appreciated. Following is the present route list:

Miss A. F. Lacy, 46 Caselli Ave., San Francisco, Cal.

Henry Kern, 411 Locust St., San Francisco, Cal.

J. V. A. Frates, 2020 Linden St., Oakland, Cal.

Berton W. Crandall, Palo Alto, Cal.

S. L. Bacon, 393 South 10th St., San Jose, Cal.

H. S. Shain, Wrights, Cal.

Anton L. Anondson, Borate, Cal.

Harry Eckenrode, 1134 5th St., San Diego, Cal.

O. Moncur, Yuba City, Cal.

Frank P. Storm, 112 North 8th St., St. Louis, Mo.

F. E. Foster, Iowa Falls, Iowa.

Chas. B. Brunner, Easton, Pa.

J. Clair Hegarty, Utahville, Pa.

Frederick Pavlicek, 440 East 77th St., New York, N. Y.

Henry Bowe, 412 East 83d St., New York, N. Y.

Henry Hall, Dongan Hills, New York.

Horace W. Gillett, Box 1276, Penn Yan, N. Y.

H. Florence Oliver, 5 Bloomfield St., Lynn, Mass.

Geo. R. Bosworth, Williamstown, Vt.
Louis Fleckenstein, Faribault, Minn.
A. J. Swanson, Faribault, Minn.
Miss Mabel Fulton, 731 West 2d St., Duluth, Minn.

G. R. Perkins, North Bend, Neb.
H. W. Baker, Barker Block, Omaha, Neb.
R. E. Dawdy, Hoquiam, Wash.
W. F. Hunter, 589 5th St., Portland, Or.
Jessie J. Beone, Yaquina City, Or.
R. R. Chevalier, Box 356, Sacramento, Cal.
G. C. Cook, Box 791, Denver, Colo.
J. B. Brown, Jr., Box 1523, Denver, Colo.

A correspondent in Minnesota wishes to know how he may determine if his lens is free from astigmatism. If he will draw a series of both perpendicular and horizontal lines near each corner of a large sheet of paper and photograph it, taking care to focus sharply, he can easily determine if astigmatism exists. If not, the lines in one direction will be as crisp and sharp as they are in the other.

Now that all the journals are teeming with laudatory comments on the personality and achievements of the late H. P. Robinson, that at the most are only a part that is due, I would like to quote a paragraph from an article by him in *The Year Book*, some nine or ten years ago, under the above title:

It has often struck me that those who want to make pictures by photography scarcely go the right way to work in devoting nearly all their time and energy to the sciences of chemistry and optics; it is an entire misapprehension of the qualities required. I would rather fall on the other side, and recommend you to be as ignorant as you conveniently can about other matters, but learn art perfectly. I say "as you conveniently can," because I don't want you to neglect the study of the necessary technicalities that go to the formation of a negative or a print. This is now exceedingly simple and does not require any real knowledge of the two sciences I have mentioned. Now, the construction of a picture is like mathematics—the farther you go into the matter the more there is to learn; therefore, give your time to it.

Prints on developing paper not intended for mounting may be kept from curling when dry by immersing them, after the final washing, in the following solution:

Water.....1 ounce
Alcohol.....4 ounces
Glycerine.....3 ounces

PORTRAITS IN If you wish to try something in the way of a novelty, get IMITATION OF a large-sized frame, elaborately carved, and a square of coarse canvas, tightly stretched on a frame, and try the following method: Take the frame and paste strips of black or white paper all around the edge of the back, so as to extend a few inches outside the frame all around. This will prevent the necessity of trimming the finished print close to the frame. Stain the canvas a darkish brown with a solution of coffee. If left white the exposure made on it alone will degrade the shadows in the finished picture too much. Place your subject behind the empty frame in front of a dark background and give an exposure a trifle short. Cap the lens and bring the canvas close up behind the frame, taking care to move neither the frame nor the camera. Give nearly as long an exposure to the canvas as you did to the sitter, and the result will be a negative that will show the grain of the canvas in a realistic manner that, with the aid of the frame, will suggest very strongly the reproduction of an oil painting.

It has been stated that a piece of blue glass placed between the light and the negative from which the enlargement is being made will give a bromide enlargement free from intense lights and shades and with more pronounced half-tones. Will some of my readers give the matter a trial and let us know how they succeed?

If the correspondent who gets yellowish whites in his aristo-platino prints because the paper is a trifle old, will add enough ammonia to the fixing bath to just cause it to smell slightly of ammonia his troubles will no doubt cease. I have tried this plan quite often and it worked admirably. The formula that goes with each package of paper is as good as any that I have been able to find. If you do not secure

good results with it, it is because you have not followed directions close enough, and you would be hardly likely to do much better simply by changing your formula.

The question is frequently asked as to what exposure is necessary in surf and wave studies. Rather a broad question, only answered by giving the exposure notes corresponding to a few of my own wave negatives. The exposures quoted were all fairly correct, coming up in the normal developer in good shape. They were all made in the early part of September with a Goerz lens and a Triplex shutter. Cramer's Banner, Rapid Isochromatic and Seed's Non-Halation plates were used. A light, greenish yellow screen was used with the Iso plates, and all three plates were then considered of about the same speed. Following is my table:

	P. M.	Stop.	Seconds.
Cloudy.....	4:30	F 11	1-35
Bright sun.....	2:45	F 22	1-25
Bright sun.....	3:30	F 22	1-35
Sun behind clouds..	5:30	F 8	1-25
Sun fairly bright..	5:30	F 16	1-25
Bright sun.....	4:00	F 16	1-35
Bright sun.....	1:30	F 32	1-50

It must be remembered that a great many forms of shutters work slower than the time indicated on their dials, and that few of them have the light efficiency of the Triplex shutter. An Iso plate is a disadvantage unless one wishes to bring out distant vessels or hills. In my case I wished to show distant fishing-boats against the sky. A non-halation or backed plate of medium rapidity is my preference.

One of my correspondents has been asked for his advice as to the kind of camera best suited for the beginner's use. This prospective photographer did not wish to court disappointment by buying cheap and useless apparatus, yet he did not wish to invest a large sum and find, as he became more proficient, that he did not buy just what best suited his requirements. Neither did he wish to burden himself with an instrument unnecessarily complicated, nor one the cost of which would be a cause of regret should he discard it after a little practice. My advice in this case would be to start with a cheap stand camera, 5 x 7 or 6½ x 8½ size, and let him learn to use it thoroughly. A cheap stand-pattern camera by any reputable maker, is cheap only in its lack of complication, varnish and lacquer. A single view lens

will go nicely with it, add but little to the cost, and, although not the best lens for architectural subjects, a little slow for portraiture, and hardly wide enough angle for interiors, will make as good, if not better, landscapes than the high-priced instruments. One season with such an outfit, with the experience gained in using the ground glass, focusing screw, lens, stops and tripod, will fit him for choosing his permanent outfit and for using it to advantage.

He may insist that he only wishes to use a hand camera, but hold your ground. In starting with a hand camera a beginner will waste enough material the first season to buy a good stand camera. Starting with a cheap stand camera he will have saved enough in the same time to buy a good hand camera, while at the same time he will have learned much more than he would by using the hand camera from the start. Look back at your own experience as a novice and see if I am not right about it.

NEGATIVES OF BLACK AND WHITE SUBJECTS In copying black and white drawings, printed matter and the like, it is hard to get the contrast desired. One trouble that is met with is the difficulty of determining whether thin negatives are the result of under or over exposure. The only way this can be overcome is by using your normal developer and letting the time of appearance of the image tell you in which direction your error lies.

Iodide of potassium is a much more powerful restrainer than the bromide. Try adding a drachm each of a two-per-cent solution of both the iodide and bromide of potassium to every three ounces of your developer. Give about double the exposure. Development will be slow, but will produce exactly what is desired, clear glass and image and opaque ground.

Different plates require varying proportions to obtain the best results, but a few experiments will set you right. If veiling occurs decrease the bromide.

LOCAL REDUCTION OF NEGATIVES Nearly all of us have tried to reduce a negative in places, and how few have succeeded in obtaining results. I read a hint in one of the foreign magazines the other day and gave it a trial. The idea is to simply go all over the parts of the negative not desired reduced with a brush just lightly dampened with olive oil. If the brush is wiped with a soft rag after

being dipped in the oil, leaving only a trace on the brush, the outline of the part to be reduced can be followed to a nicety. The oil will prevent the solutions, also best applied with a soft brush, from spreading beyond the desired boundary. The dilute solution of ammonia can be used to remove the oil after the reduction has been effected. The plan worked fine in my hands, and I advise the trial of it by those wishing to reduce portions of a negative without altering the whole.

THE AMATEUR IN AUSTRALIA A correspondent in the *Australian Photographic Review* complains to the editor that he asked a brother amateur what was the trouble with his negatives, and was told that there must be something wrong with the developer. On being asked what kind he used, this superior individual replied that it was one of his own make up and that he doubted if the novice could use it. Our poor tyro goes to another with a request that he develop a couple of his negatives for him. This he does with satisfactory results, but, on being asked as to the developer employed, replied that he was not at liberty to give the particulars, as he was pledged to secrecy. Our poor tyro complains to the editor that he does not seem to get in with the right "push." That is the word he uses. Now, just imagine this individual out at Golden Gate Park some nice Sunday, and let the news get out that there was a fellow over in the further end somewhere that wanted a good formula for developing. You can imagine the rest.

DRYING NEGATIVES WITH ALCOHOL Some one in Denver finds markings after drying negatives with alcohol, and asks if it is because the alcohol is not pure. I hardly think his surmise is correct. The most likely cause of the spots is the presence of a slight deposit on the surface of the negatives left there after washing them in hard water, or water containing lime or other foreign substance. Negatives should be well swabbed off with a tuft of cotton wool and then lightly rinsed before passing to the alcohol bath, or even before being dried in the ordinary way. This foreign matter collects in spots on the surface of the soft film and prevents uniform action of the alcohol or washes.

If not removed, these streaks are more pronounced when the negative becomes dry than they were while the negative was still in a damp condition.

IN PROFESSIONAL FIELDS

AN IDEA OR TWO EACH MONTH

CONDUCTED BY O. V. LANGE

A NOISELESS SHUTTER

How often we hear the remark, "That would have been such a good picture, but the click of shutter caused the child to move just at the wrong time," or "she had a lovely expression, but when the old shutter rattled it completely vanished." Not only these remarks, but many others of a similar nature are heard all over the land by both professional and amateur. One day, having more time than money on hand, I started out to find a noiseless shutter. I had a merry chase for several hours, until I learned through a mutual friend that Mr. Bushnell, out on Market Street, had an ideal one, so out I went, and explaining the object of my visit, I was kindly shown into the operating room, where the long-sought-for shutter was shown and explained to me by Mr. Lawrence Terkelson, the operator. The mechanism is simple enough; there are four brass castings fastened to a metal cylinder which fits around the lens and screwed to the inside of the lens board. Upon the brass castings two velvet-covered doors swing; these are opened and shut by two semi-spherical rubber disks, which are inflated by means of a bulb connected by the usual tube. Any exposure can be given from a quarter of a second to an indefinite length of time by closing the tube so that the air cannot escape. As the doors hinge and open from the center, the illumination is uniform all over the plate, and nothing can be heard before, during, or after the exposure. The operator told me that he has timed portraits during the period when he was holding the sitter's attention by an animated conversation, and the subject was entirely oblivious to the fact that the light, lens and noiseless shutter had already done its work.

DIFFUSION OF FOCUS

It is remarkable how little attention the average portrait photographer pays to the proper use of his lens and diaphragms. For example, the other day, in a conversation with a professional, I asked him if he took advantage of the different effects to be had from the use of the various sized diaphragms. He said that "life was too short

and he did not get enough money for his work to take the time fooling around with stops," and that the middle one was good enough for him.

Now, I know that if he would experiment, and incidentally study his stops, he would find life long enough and get a good deal more money for his work.

If we compare the portraits made in a third or fourth class "Photo Parlor" and one made by a photographer with artistic instincts and training, the difference must surely be apparent to the most unobserving.

The one will be hard, sharp cut and cast-iron looking, with everything on the same plane, and not a particle of atmosphere surrounding the subject, making it unsatisfactory and painful to look upon. The other will have a subtle, indescribably charming environment, not only from the superior lighting and pose, but also by the different planes of distances observable, thereby causing a certain plastic appearance, roundness of figure and softness that is very agreeable and satisfying to the eye.

How is this transformation brought about? To a great extent by intelligent focusing, that is, if a three-quarter view showing only head and shoulders is taken, the nearest eye should be sharpest and all else on the same plane as the side of the nose and corner of the mouth. The farther eye and side of cheek should be a little less in focus, so that the outline will seemingly blend in with the background. When focusing with a portrait lens, full open, this effect is exaggerated, and a diaphragm should be inserted that will give the desired result. This must be carefully observed on the ground glass and not placed in at haphazard. The largest possible stop consistent with the effect desired should be used.

Those who use the modern anastigmat view lenses must have found that it is impossible to get the desired effect of softness in portraits, even when using the full-open lens, on account of the depth of focus making everything equally sharp on the different planes of distance. This defect can be very easily remedied by producing what is called

diffusion of focus, that is, the front and back combinations are both unscrewed until they are as far apart as they can be without coming off. By this means a very desirable quality is obtained in the lens, as it diffuses the focus and gives a decidedly pleasing softness of outline. The lens can be used wide open, thus gaining considerable in shortening the time of exposure.

LOOK TO YOUR RUBY FABRIC

This is the season of the year when the intensely white light of the long summer days has a decided effect upon the ruby fabric, which it changes to a brown color that gives no real protection to the sensitive plate. This applies, of course, to those who use daylight instead of artificial light to develop by.

Many use two thicknesses of the fabric. It is the outer one that changes, while the inner retains the color very well. Right here is where the trouble comes in. We do not see any change, and, consequently, are deceived as to the true actinic quality, and are therefore liable to condemn the plates as working weak and foggy.

I find that the best thing to do is to use two thicknesses of the ruby fabric and a thin sheet of orange postoffice paper. By this means the fabric will retain its non-actinic character for years, even after the outer paper has been considerably bleached. Again, it is much less expensive to replace the paper when necessary.

It is also advisable to have a plate-box cover for each of the different sized developing trays. By tacking a strip of wood diagonally across the top of the cover, this will act as a stiffener and serve as a convenient handle. Those habitually using these covers will find their plates always working uniformly. Never omit them when developing isochromatic plates.

COPYING MATT SURFACE PRINTS

It has become an established rule among professional photographers, and even the half-tone workers have the same delusion, that only burnished and glacé finished prints make the best copies. Perhaps for the purposes of the ultra-scientist, where all artistic feeling and merit must give way to microscopical detail, it may seem to be necessary to prefer the shining surface.

I have proven to my satisfaction that the copying of matt surfaces, if the negative was sharp and clear, gave as good, if not better, results, even for scientific work, than that

usually desired by the best of workers. The reason is this, that in photographing the glossy prints reflections have to be overcome, necessitating the turning of the print away from the strongest source of light, so that there is an immediate loss of detail which cannot be made up by extra exposure. Besides, the shadows are dark in smooth paper and the high-lights are very white and expressionless, qualities which are naturally exaggerated in the copy.

The matt paper prints from the same negatives are not so contrasty, and a copy gives more of the true value of the original, because it can receive a full, flat light, and a piece of white cardboard or a mirror on the side opposite the source of light will obliterate any irregularities in the grain of the paper.

Therefore, if you wish to preserve the greatest possible artistic merit of the original negative, do not give the half-tone people any but matt-surface prints. They may kick, but let them; you know what you want.

THE CAMERA AND PUBLIC MEN

A few days ago I read in an out of town paper that it had been reported that President McKinley cannot go out of doors for a breath of fresh air without being followed by crowds of camera fiends intent upon taking his picture.

All of the pictures that I have seen of the President do not show him to be particularly embarrassed; in fact I should think that when he saw that he was under fire he would brace up to give the photographer a good show. From personal experience and that of others whom I have asked I believe that most public men are not averse to have themselves immortalized on a kodak film. And why should they? They are to a certain extent public property, and just as their characters and reputations become once they pose as public men, they might just as well pose as a subject for the camera, even when fired at in the street.

One of the most original inducements ever offered to the photographers by a manufacturer of dry plates is the one now being offered by the Monroe Dry Plate Company, Box E, Jamestown, N. Y. This company offers a small package of their special plates for rapid work, either 4x5 or 5x7 with developer, express charges prepaid, for twenty cents. Here is an opportunity that no enterprising amateur should neglect.

CURRENT AFFAIRS IN CHICAGO

CONDUCTED BY E. W. THOMAS OF THE CHICAGO SOCIETY OF AMATEUR PHOTOGRAPHERS

An ideal photographic trip, in a new houseboat, through the Illinois Canal and down the Illinois River, stopping at Marseilles and Ottawa, and down as far as Pekin, will be taken by some of our members this month. The steam launch Viking, owned by a party of amateur photographers, will convey the houseboat on this trip. A complete darkroom is one of the many features of the boat, which is about as perfect and comfortable in its appointments as one's own home.

A captain, cook and crew will relieve the party of every care, and all the photographers will have to do will be to eat, sleep and expose plates, and incidentally to develop them. A full cargo of prize-winning salon pictures will undoubtedly be one of the results of the trip.

The announcements are now out for the forthcoming salon, to be held October 1st to 20th, and the following extracts may be of interest:

The Art Institute of Chicago has the honor to announce that, under joint management with the Chicago Society of Amateur Photographers, the Second Chicago Photographic Salon will be held in the galleries of the Art Institute from October 1 to October 22, 1901.

The purpose of the salon is to bring together the best examples of the photographic work of the year, rigidly to be selected by a competent jury.

Jury of Selection—Henry Troth, Philadelphia, photographer; Wm. B. Dyer, Chicago, photographer; J. H. Vanderpoel, lecturer in department of figure drawing and painting in the Art Institute of Chicago; Charles Francis Browne, lecturer in department of landscape painting in the Art Institute of Chicago; Wm. Schmetdgen, water color painter, illustrator on Chicago *Record-Herald* and amateur photographer.

The rules governing exhibits are practically the same as last year.

Inquiries and application blanks have been called for by prospective exhibitors, both in this and other countries, and all signs indicate a full and fine exhibit.

DR. DETLEFSEN'S EXHIBIT

BY M. W.

Following the Members' Exhibit, the club has had upon its walls a selection from the works of Dr. F. Detlefsen, which has proven

very interesting and has caused much discussion.

Although Dr. Detlefsen is not bound to any particular school, his pictures, ranging from perfect definition to the vaguest outlines and from strong contrasts to the delicate scale of tones in that masterpiece, "Alter Ego," known to the readers of CAMERA CRAFT through a reproduction in the salon number, yet his individuality is so stamped on his work that his *cachet* is recognized in whatever style or medium he may be working for the moment. It is hard to tell in what particular element of pictorial photography Dr. Detlefsen is most successful, as his work is marked by so many high qualities.

Some of his pictures, as "Dreaming of Bygone Days," "Quid Nunc," "Alter Ego" and "Sad Memories," are full of sentiment. "Alter Ego" and "Hildegard" hold one by their originality, while No. 2, entitled "Japs," is so thoroughly decorative and Japanese in treatment that it requires a close look to see that it is photographed from life and not from a "Kakemono."

The portraits of Mr. E. and of Mr. Hansburg, and the genre study called "A Happy Moment," are strong and characteristic portraits in the dark tones suitable to the rugged type of the subjects, while "She Stoops to Conquer," "Anita," "Through a Vale of Tears," "Desideria" and "A Russian Country Girl" are beautiful examples of that delicate treatment in a short scale of pale tones in which Dr. Detlefsen has, perhaps, made his greatest success and shown the most originality. "Childhood's Sweet Dreams" and "The Young Tragedian" are examples of fine lighting and masterly treatment of draperies. The innocence, mirth, curiosity and *naivete* of childhood seem to appeal forcibly to Dr. Detlefsen, and the pictures in which these qualities are brought out are too numerous to specify, though the unconsciousness and merriness of the little lady in "It's My Laugh" should not go unmentioned.

Within the last few weeks Dr. Detlefsen has, for the first time, turned his attention to landscapes, and of the ninety-one pictures in the collection eighteen are of this class.



BUSINESS NOTES



Mr. H. P. Lovick, the well-known scenic photographer, has been employed as a demonstrator by the manufacturers of Velox paper, and will tour the State during the next two months.

P. F. Adelsbach of Tulare has removed to Porterville, where he will open a gallery.

The Rochester Optical and Camera Company tell us that they are very proud of their Pony Premo, No. 6, which, in many respects, is a practically new instrument. The new auto-shutter, working on purely automatic principles, is one of the most pronounced improvements of the year. The amateur contemplating purchasing a new camera will do well to investigate the merits of this particular style.

Messrs. Burke & James, of 118-132 West Jackson Boulevard, Chicago, have been appointed the Chicago agents for the *Photo-Miniature*. We congratulate the *Miniature* on procuring such live and progressive agents.

Mr. Wm. Helmquest of the Stuparich Manufacturing Company is now in New York. In a recent letter Mr. Helmquest grew enthusiastic over the multitude of new things he is securing in the way of photographic mounts.

There will be an exhibition of photographs in connection with the eighth annual Spokane Interstate Fair. Exhibits should be sent at any time before September 5th, and should be addressed to Dr. A. H. Coe, Interstate Fair, Spokane, Wash.

The following prizes are offered by "Rotograph" for prints on paper manufactured by them: One grand award of two hundred dollars (\$200), in cash, for the all-around *best* picture, whether a contact, an enlargement or a postal card—made on any grade of "Rotograph" paper. For contact prints—not smaller than 4 x 5 size: Seven cash premiums amounting to \$125.00, also forty premiums of, each, one dozen 10 x 12 sheets of "Rotograph" bromide paper, value \$1.10 per dozen. For enlargements—10 x 12 and upwards: Seven cash premiums amounting to \$125.00, also forty premiums of, each, one dozen

10 x 12 sheets of "Rotograph" bromide paper, value \$1.10 per dozen. For pictures made on sensitized "Rotograph" postal cards: Four cash premiums amounting to \$50.00, also twenty premiums of, each, one dozen 10 x 12 sheets of "Rotograph" bromide paper, value \$1.10 per dozen.

A copy of the *Bromide Monthly* and full particulars of the competition will be sent upon application to "Rotograph," 101 Fifth Avenue, New York.

Messrs. F. L. Schafuss & Co., 94 Reade Street, New York, album manufacturers for unmounted photographs, are preparing for a large trade the ensuing season, and the several new styles which they propose to show the trade they claim will be "sellers at sight." A postal requesting price list and discounts will receive prompt attention.

The C. P. Goerz optical works just completed its one hundred thousandth double anastigmat lens which happened to be a number nine, series three, of twenty-four inches focus. This event was adequately remembered by a celebration in the factory. It may certainly be considered as a magnificent record to have made and marketed inside of eight years one hundred thousand anastigmat lenses, and undoubtedly is one of the convincing proofs of the high perfection of the Goerz produce. CAMERA CRAFT congratulates the Goerz Company, both for the celebration and its cause.

Mr. E. W. Thomas, Chicago correspondent for CAMERA CRAFT, captured the *Record-Herald* prize for the best picture of Montgomery Ward's tower. The successful picture shows a very clever handling of a difficult subject, and Mr. Thomas has been generally congratulated upon his ability to inject artistic feeling into a photograph of so complex a subject.

Messrs. Kirk, Geary & Co., 220 Sutter Street, San Francisco, have recently placed on the market a new blotting paper for prints. It is called "Lintless K. G. Blotter," and is said to be chemically pure and absolutely lintless. A specimen sheet will be sent upon application.

One of the most valuable catalogues ever issued for the use of those interested in lantern work is that of the McIntosh Stereopticon Company, Chicago, a copy of which has been received in this office. Besides an unusually full line of instruments the catalogue contains one of the fullest and most complete lists of slides ever published. It is, in fact, invaluable to any one who owns a lantern.

The new Plastigmat lens recently placed on the market by the Bausch & Lomb Optical Company seems to have been an immediate success. The demand for the new lens has been so great that the factory has been barely able to supply the demand.

F. L. Schafuss & Co., 94 Reade Street, New York, are placing before the stationery trade a new, novel and original line of albums for the collection of postage stamps. It has supplied the long-felt want of which the stationer and the philatelist have long been in search, and the gratifying results in large advance orders have proved the success of the new styles.

Those who have used Dixie developing paper will be pleased to learn that a San Francisco agency has been established, and that in the future a full stock will be carried in the West. Mr. C. Brewster has been appointed as the agent at 432 Montgomery Street, San Francisco.

The New York Camera Exchange, at 114 Fulton Street, New York, are making big alterations in their present quarters. When they are completed the salesroom will be enlarged to twice its former size. Messrs. J. H. & J. Andrews, the proprietors, are among the most progressive of the New York dealers.

A very pretty romance, which will interest every member of the photographic fraternity, culminated at Reno, Nev., on Wednesday, July 31st, where Miss Angela Le Prohn, of San Francisco, and C. Ernest Cramer, the genial treasurer of the Cramer Dry Plate Company of St. Louis, were married.

CAMERA CRAFT regrets that the news reached it too late to tell the story in detail, but offers its heartiest congratulations to the happy pair.

CHORUS.
I can't tell why I love you, but I do - oo - oo

Dark Brown Roast.
If there is anything on which the editor of *Photo Miniature* is sensitive, it is his inability to write poetry, and get general advertising. The slightest suggestion of anything poetical in a photographic magazine suffices to rouse his otherwise amiable and prosaic nature and prompts him to say things like—

43 THE PHOTO-MINIATURE NOTES

The *Photo Era* for April contains a profusely illustrated account (third paper) of "The Moki Snake Dance," by A. C. Vroman; a prose-poem on "April" in which the editor invites the gentle reader to "stand on the edge of spring," and catch things; and sundry advertisements of rye whiskey, corsets, garters, compounded antidote coffee, and other interesting items. Price, 15 cents per copy, and a bargain at the price. [Photo Era Pub. Co., Boston.]

We can almost hear the chuckle of delight, and see the ghoulish glee with which the Editorial mind delivered itself of this last paragraph, and thought, though it did not write—this is a dark brown roast for the PHOTO ERA. Meanwhile, not being a house organ we can only plead in extenuation of our fault of carrying advertising matter in our pages, that we are consumed with a desire to pay our bills promptly, and advertising helps to pay bills.

PHOTO ERA

NEWS OF CLUBDOM

CAMERA CRAFT IS THE OFFICIAL ORGAN
OF THE CALIFORNIA CAMERA CLUB,
THE SAN DIEGO CAMERA CLUB, AND
THE PENDLETON (ORE.) CAMERA CLUB

PHILADELPHIA PHOTOGRAPHIC SALON 1901

The following announcement has been sent out by the Photographic Society of Philadelphia:

The Pennsylvania Academy of the Fine Arts has the honor to announce that, under joint management with the Photographic Society of Philadelphia, the Philadelphia Photographic Salon for 1901 (fourth year) will be held in the galleries of the Academy, Broad Street, above Arch, from November 18 to December 14, 1901.

The purpose of the salon is to exhibit that class of work only in which there is distinct evidence of individual artistic feeling and execution, the pictures to be rigidly selected by a competent jury.

Pictures which have already been shown in Philadelphia at any exhibition open to the general public will be liable to exclusion.

No awards are offered, and no charge will be made to exhibitors. Each exhibitor will be furnished with a catalogue, which will be the official notification of acceptance.

No exhibitor must submit more than ten pictures, each of which must be framed separately.

The title of each picture and the exhibitor's name and address must be clearly written on the labels provided, which must be attached by the exhibitor to the back of each picture. Nothing may appear on front of picture except title and exhibitor's name.

No accepted pictures may be removed before the close of the exhibition.

Arrangements will be made for the sale of pictures if desired, subject to a commission of 15%.

All communications and all pictures submitted for exhibition must be addressed to the Pennsylvania Academy of the Fine Arts, Broad Street, above Arch, Philadelphia, Pa., U. S. A. All pictures must be forwarded at owner's risk, carriage prepaid, and delivered at the Academy not later than 5 P. M., Wednesday, October 30, 1901.

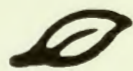
The management will use all reasonable care to prevent any loss or damage to pictures in its charge, but will not be responsible for such occurrence.

Foreign contributors are requested to submit their pictures, unmounted, by post. The management will suitably mount and frame them before exhibition, at no cost to the exhibitor, and will afterward return them by registered post.

H A V E

VELOX

prints made from your negatives. Our prints are noted for tone, delicacy and vigor. Try them.



Goldsmith Bros.

CAMERAS and SUPPLIES

236 Sutter Street, San Francisco

WANTS

Free to those seeking employment.

Three lines, one insertion, 50c. Three insertions \$1.00.

For Sale—A well-stocked and patronized photographic gallery in a prosperous Arizona district. Owner grown suddenly wealthy from mining development. Apply to Henry Monahan, 620 Clay St., S. F.

A strictly first-class retoucher, negative etcher, and stippler, who can also operate and assist with most work in studio, desires engagement about September 1st, or would like to rent furnished studio of moderate size. Address Claes F. Ericsson, 56 West Second South Street, Salt Lake City, Utah.

For Sale—One of the leading galleries in San Francisco, Market Street location. Fine opportunity for first-class man. Address J. T. B., care of Kirk, Geary & Co., 220 Sutter Street.

For Sale—A fine photographic car, well furnished. The only gallery in a good town of 2000. Cabinets, \$3.00 dozen. Splendid location for party with limited capital. Address M. D. Sloat, Oakdale, Cal.

For Sale—Photograph gallery in good town, doing a good business. Cheap for cash. Only gallery in town. Good prices. Owner compelled to go East. Address Groves, Livermore, Cal.

\$350 Cash—Will buy a modern, well-furnished Studio in the Mission, San Francisco; \$650 worth of apparatus and furniture in sight. For particulars address L. D. Hicks, 220 Sutter Street.

A1—Lady retoucher is equipped to do piece work for the Trade, usual prices. Satisfaction guaranteed. Mrs. E. W. Bennett, 515 1/2 Bush St., San Francisco, Cal.

A GOOD EXCHANGE MEDIUM
FOR AMATEURS

PLEASE MENTION CAMERA CRAFT

Eastman Kodak Company

ROCHESTER, N. Y.

THE KODAK EXHIBIT AT THE PAN-AMERICAN EXPOSITION— VELOX DEMONSTRATIONS.

"The most artistic exhibit on the grounds," was the remark made by a Pan-American official regarding the installation on the space jointly occupied by the Eastman Kodak Co. and the General Aristo Co.

exhibit, therefore, consists largely of pictures. Nearly all of these are from Kodak negatives, many being enlarged on Eastman's Royal Bromide paper and fully demonstrating the fact that among the Kodakers are many artistic workers. There is also a large display on the new paper, Eastman's W. D. Platinum, showing the wonderful possibilities of this paper. Solio, our Sepia paper and Eastman's Ferro-Prussiate paper are



Joint Exhibit of Eastman Kodak Co. and General Aristo Co.

It is an exhibit that every visitor to the exposition who is in any way interested in photography should see. The Kodak line is shown in full, from the little \$5.00 Pocket up to the No. 5 Cartridge Kodak with its most elaborate equipment, and thoroughly informed attendants are on hand throughout each week day to explain the operation of the instruments.

But in photography results are more attractive than means and our

also represented with some very clever work, and there are a few exhibits of professional work on American Aristo—small in number but typical of the very best product of the gallery. Interest is added to the very beautiful exhibit of Velox prints by the fact that daily demonstrations are made on this paper from 11 to 12 a. m. and from 2 to 5 p. m. In installing the exhibit especial preparation was made for the convenient

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handling of Velox paper, a plate glass counter being provided on which to develop the prints and underneath which are two taps with running water and a copper lined sink with outlet. The printing is done over a cluster of incandescent lights which are located underneath a square of ground glass in the counter top. Velox prints from Kodak negatives are printed, developed and fixed "while you wait," the demonstrator explaining each step of the process.

The exhibit installation is in cypress, stained a dark brown; the walls are covered with green velure and a cream tinted canopy cuts off the excess of overhead light, the pictures being illuminated by fifty concealed incandescent lamps.

It is a restful place, withal, and we are glad to have our photographic friends sit down and view the pictures at their leisure.

IN ITS THIRTIETH THOUSAND.

The fourth edition of *Picture Taking and Picture Making* is now on the press, the book with this edition reaching its thirtieth thousand. There have been 10 and 25 cent books on photography that have sold more rapidly than *Picture Taking and Picture Making*, but we believe that no photographic work retailing at 50 cents or more has ever enjoyed such a large sale as has this book. The new edition like the others is printed on heavy enameled stock and the press work is of the highest order.

In reviewing the book on its first appearance Alfred Stieglitz said in *Camera Notes*: "Answers the most puzzling questions asked by the beginner."

Price in paper covers, 50 cents, cloth bound, \$1.00.

THE NEGATIVE AND THE PAPER.

A FEW HINTS THAT MAY DOUBLE YOUR PHOTOGRAPHIC PLEASURES.

Do you get from your negatives all that is in them? Or when you have made a few negatives do you print them all on your favorite paper?

Probably nine-tenths of the amateur photographers lose half the pleasure of picture taking by following the latter course. They like a black and white matte paper and make all of their prints on Velox or Dekko, or they like a warm toned, glossy paper and use Solio. That is all very well for the first set of prints. But a careful study of these prints and a little experiment will show that some will gain brilliancy and artistic effectiveness by use on another paper.

Let us look over our negatives: Here is one taken in a ravine; delicate ferns are clinging to the mossy banks, slender boughs of the beech and birch form a canopy overhead, while near the center of the picture a cool stream, that one could leap, ripples over the nebbles; in the background we catch a glint of sunlight on the tiny waterfall. The negative is "sharp as a needle" and the charm of the scene lies in the delicate lace-like traceries of the ferns, the fresh, crisp leaves, the soft, clinging moss and the murmur of the brook. It is not a "broad" picture but one of nature's hidden gems—a pretty bit, every line of which adds to the picture. Print on Solio and preserve the detail.

Another negative. A flat beach by the sea; here and there a struggling bit of vegetation, or a bit of wreckage cast up by the waves; beyond is a leaden sea and in the distance an old schooner, with sails furled, lies at anchor, her spars silhouetted against

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a sky across which elongated, soft-edged clouds have stretched themselves with a promise of rain. The picture is full of atmosphere; we must preserve it. Eastman's W. D. Platinum (Rough) is the paper to use.

The next, a portrait of a lady. She is dressed in a black silk gown with a white yoke. The background is a dark curtain, a soft north light falling upon her face and hair. We want detail and softness, yet wish to preserve the snappy contrast which the negative shows. Eastman's W. D. Platinum (Smooth) is the paper for this negative.

Here are a number of summer snapshots. The usual outdoor record of happy vacation days. Velox or Dekko or W. D. Platinum will fit them perfectly. But even in these one will find that one negative will give better results with a smooth and another with rough paper. A little experiment will tell the story and show us just how to get the very best effects.

Here are two negatives made last winter. One is an old orchard after a wet snow had loaded every branch and limb with a mantle of white; the low down sun peeking through the clouds gives a moonlight effect, making the snow-covered earth and trees sparkle like ten million diamonds. The other is a cornfield in which the neglectful farmer has left the stalks still standing in the shock. The late northwest storm has half covered one side of each shock with drifted snow. The ground is here and there blown bare of snow and the sky is overcast. 'Tis but a dismal scene. How print from such negatives as these? Surely they should be cold in tone. No warm sepias or browns. Blue prints solve the problem—not the bluish green prints that one gets on the cheap draughtsman's paper sometimes substituted for a photographic paper—but prints on Eastman's Ferro Prussiate

paper, which is of a soft and delicate blue and is capable of reproducing the details of the negative.

With many broad and sketchy negatives charming results, resembling old etchings, may be had from the use of Eastman's Sepia paper.

Thus it is that the amateur by a little study may vastly improve his collection of pictures from the negatives on hand, and may greatly increase the pleasure to be derived from every negative that he makes. When the negative is fixed, the pleasure from the standpoint of the true photographic devotee has just begun.

NEED NO BACKING.

In a recent letter to us Mr. E. W. Newcomb, editor of the *Photo-American*, all around authority on matters photographic and manufacturer of the famous "E. W. N." Improved Non-Halation Plate Backing, said: "Please send me a glass plate adapter and three plate holders for my Kodak as I wish to make some exposures on glass plates to demonstrate the value of my Non-Halation Backing. I am obliged to use plates for this as your Cartridge films need no backing."

Mr. Newcomb's opinion on anything related to photography is valuable, but his pet hobby being halation, or rather non-halation, his ideas on this subject are those of a specialist and they prove our contention for the superiority of the Cartridge film in any work where there is a tendency to halation or to too abundant contrast. The use of Cartridge Kodak Films is not, as the plate makers and plate camera makers would have you believe, confined to "snap-shotters." Those who are ambitious to accomplish with the camera all that can be accomplished in the art sense are recognizing more and more the advantages of the film cartridge. The best workers are using Kodaks and Kodak films.

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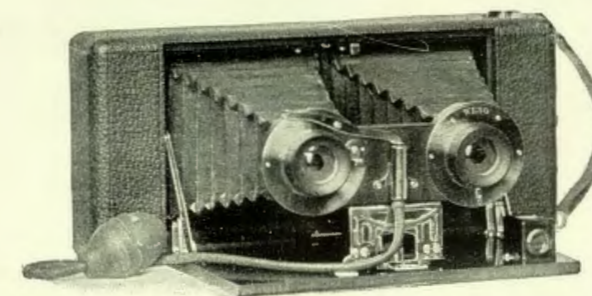
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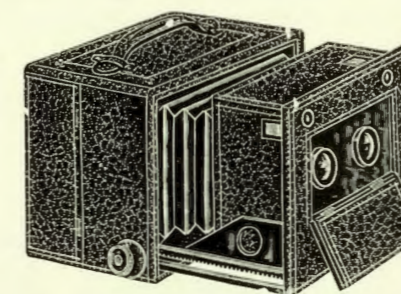
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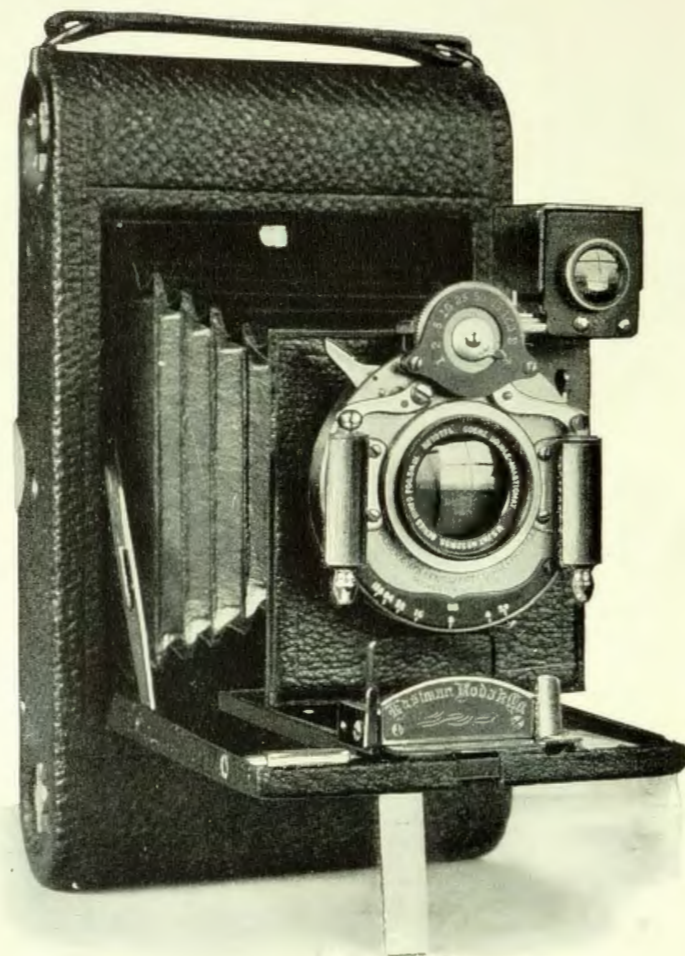
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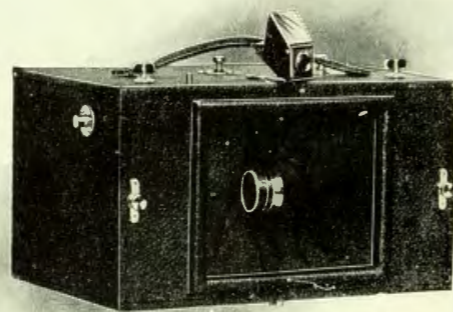
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Two New Cameras

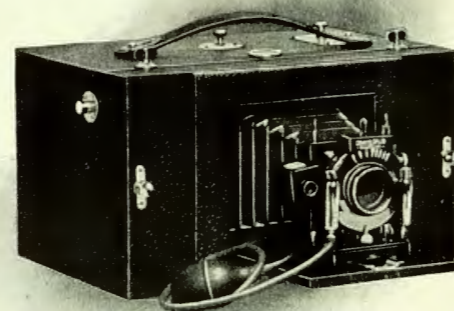
For 1901



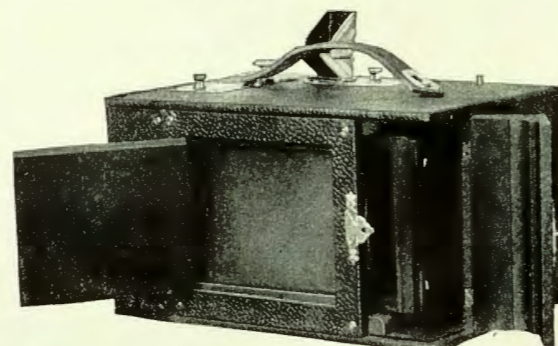
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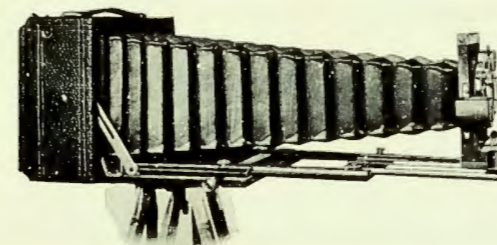
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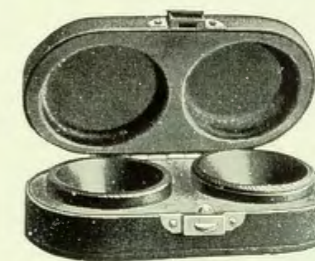
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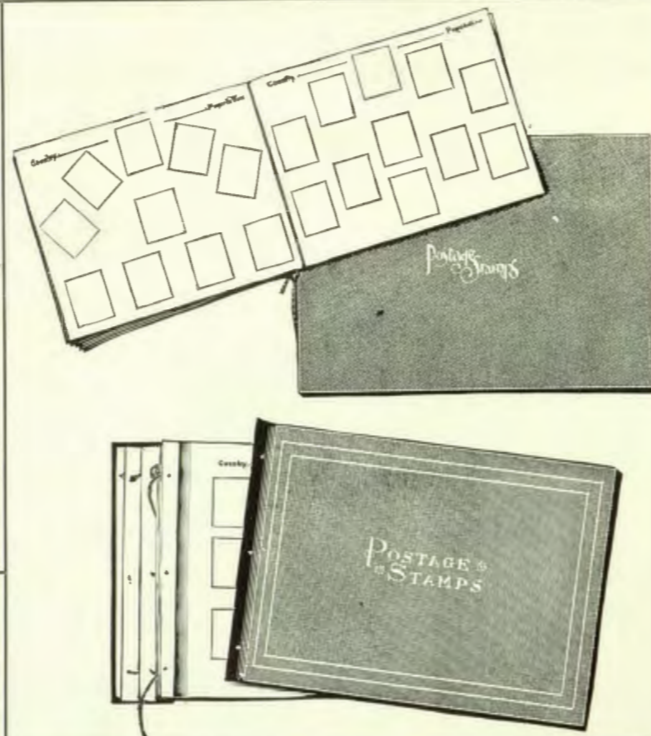
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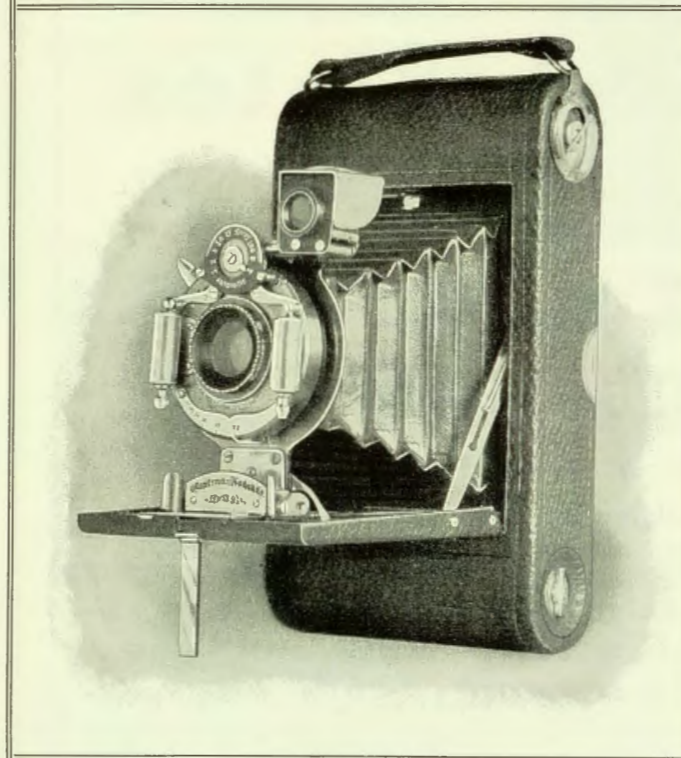
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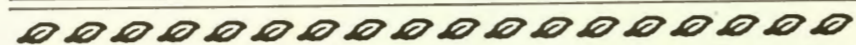
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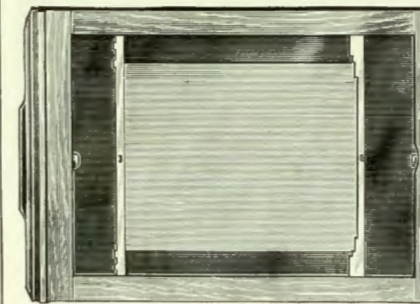
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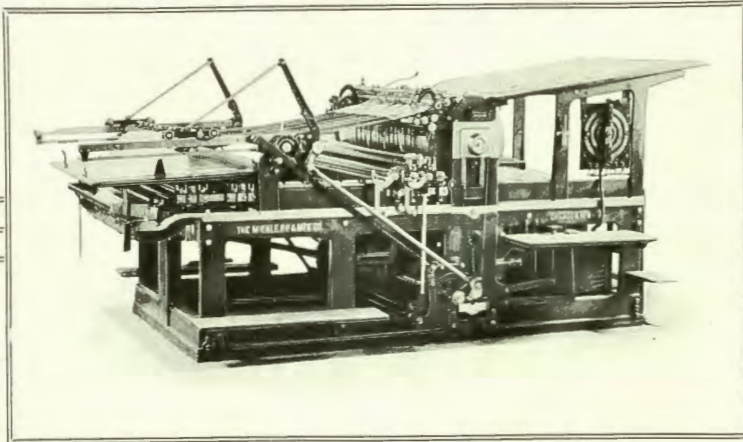
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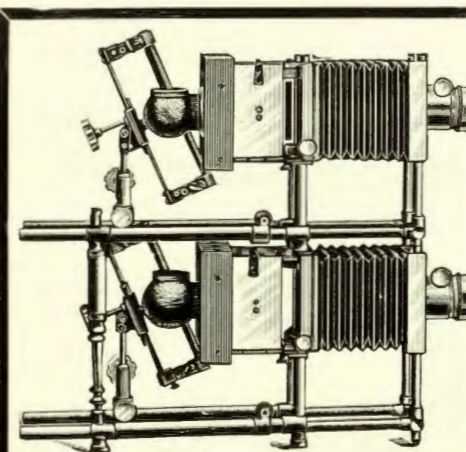
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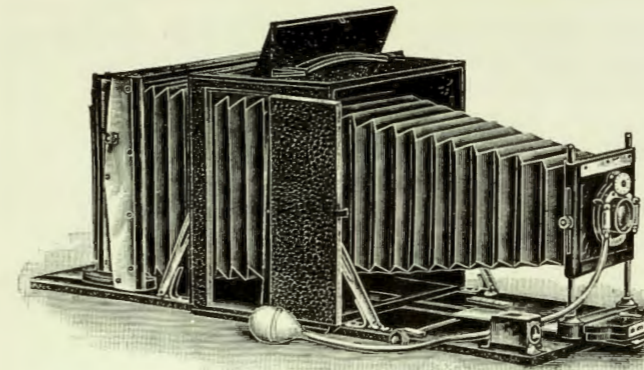
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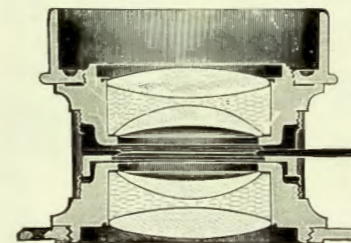
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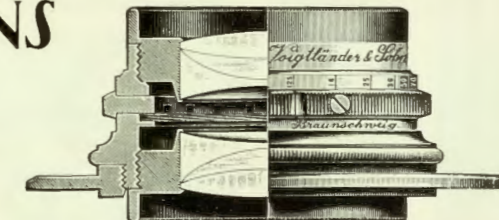
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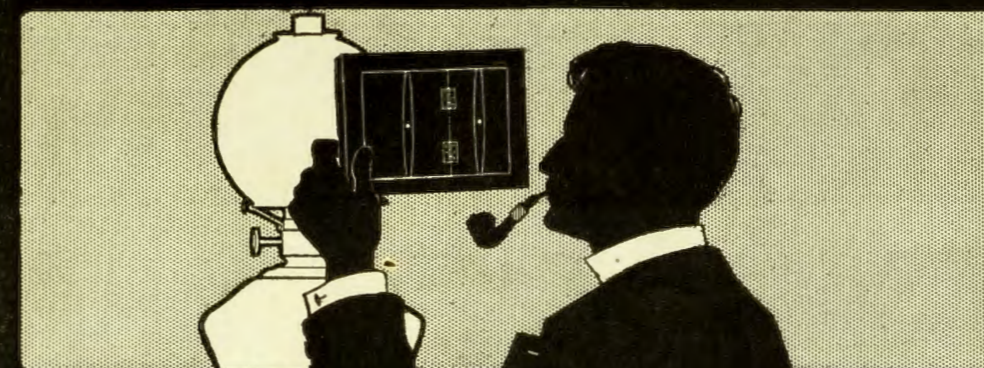
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