



ABEL'S PHOTOGRAPHIC WEEKLY

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SATURDAY, DECEMBER 1, 1917

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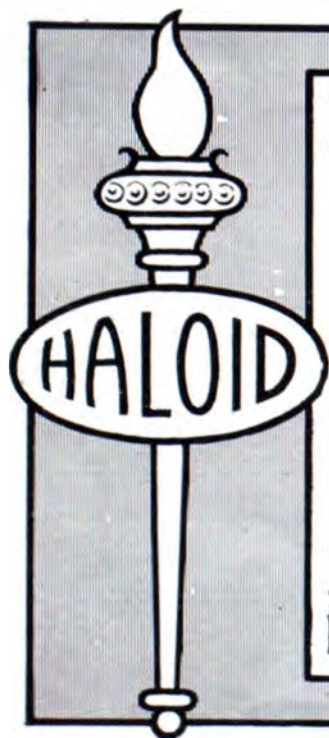
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ABEL'S PHOTOGRAPHIC WEEKLY

A JOURNAL FOR THE PROFESSIONAL PHOTOGRAPHER

Member of Audit Bureau of Circulations

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In Passing By

A NATIONAL PHOTOGRAPHIC RECORD. In history-making times like these, it is of decided importance that a very complete photographic record should be kept of everyone who has been actively engaged and been distinguished in any work connected with the prosecution of the war.

Great Britain has recently established such a photographic record which is under the supervision of the Trustees of the National Portrait Gallery. Canada also has a photographic record bureau which goes a little further than the British record in that the photograph of every enlisted man and officer of the Canadian Expeditionary Forces is sought to be included.

In this country, we understand that every commissioned officer has to deposit a cabinet sized photograph of himself with the War Department and it would be almost too great an undertaking to include the pictures of the enlisted men. But a record of the leading actors in this war drama, including officers of commanding rank, heads and deputy heads of the innumerable bureaus, the Red Cross workers, the Y. M. C. A. chiefs, the many organizations of women, etc., etc., would be of uncalculable value and interest, and to make it complete it can only be undertaken under the full authorization and control of the War and Navy Departments.

A great deal of just criticism was leveled at the conditions laid down by the British authorities. One firm only of photographers—a London firm—was designated as the official photographers and no photograph is to be included in the Record of the National Portrait Gallery which has not been made by this firm. The justification—as put forward by the authorities was that only by having one firm do the work could the desired absolute uniformity of photographs be obtained. To our thinking, this is a poor argument and we hope that if any record is made here that no such unnecessary and unfair limitation will be made.

The British Record was only recently started—almost three years after the war began. Consequently the collection will lack the portraits of many famous men who have already given up their lives in the cause. Let us

hope that the Government will recognize the value of such a record and will establish it early.

In addition to such a National Record, why not also have local photographic record bureaux? Why should not each city and town and village have its own record of its men who have gone out from its boundaries to offer their services and their lives for their country? These local records should include every enlisted man. Possibly this is being done in isolated cases, but why not make it universal? Why not have a photographic roll of honor which can be preserved for future generations in every city and town hall throughout the country?

Photographers, this is worth your consideration. It is your business to bring this matter before the proper local authorities and to see that such a record is established.

Points to Note When Buying a Lens Second Hand

By T. D. PERCIVAL

Hints as to what to look for, how to look, and what one ought to find if the lens is a good one.

WHEN a lens is being bought for use it is often possible to effect considerable economy by getting a second-hand one. With modern patterns, such as recent anastigmats which are of current types, the saving is seldom very great, and it may actually be more economical to buy direct a new lens at full price from the maker so as to have his guarantee that the instrument is in perfect condition. But with the older types this is not likely to be so important, particularly when buying a long focus lens for a comparatively small plate. In such a case there is no great advantage in getting an anastigmat at all, since the old lens on the small plate will do the work as well, as rapidly, and perhaps at a tenth of the cost. To buy judiciously one must be able to make a simple test or two, and must know what to look for.

In the first place, the glasses must all be there. It is best to turn up some cross section of the lens, such as is given in Abney's "Instruction in Photography," so as to know what to expect in number of glasses, approximate curvature, and position. There have been cases in which a seller has replaced a missing glass by a circle of window glass from the local glazier; and one should know enough to detect this at once. When the presence of all the original glasses is assured, one should next see that they are in their correct position and then look to their condition generally.

STRAINING A LENS

An expression which is often heard is that of "straining" a lens. People talk of

straining a lens by using one that is made for a 4 x 5 on a 5 x 7, or by working at f/5 an instrument of which the largest aperture provided by the maker is f/8. In the sense that we are striving to do more with the lens than it was designed to do we are straining it; but the result of such straining will only show in the photographs obtained. The lens itself will be none the worse for it.

In fact, a lens is one of the few appliances which are in no respect the worse for being used. No lens could be worn out with use; nor of two identical instruments would one which had been used to take a hundred or a hundred thousand photographs be worse than the other which had never been used at all. The lens mount might have got worn with handling, the cap might be lost, or the shutter worn out, but the lens itself should be unaffected. If an old lens is inferior to one fresh from the optician's workshop, it is not because it has been used, but because it has not been properly kept.

The greatest enemy of a lens is the cleaning it receives from time to time; and when one sees a photographer treating the accurately curved and beautifully polished surface of a modern anastigmat as Sir Joseph Porter treated "the handle of the big front door" it is impossible not to reflect that he does not know the harm he is doing. Some lenses are injured by being dropped on the floor, or strained in packing, or in the attempt to unscrew them; but the great constant injury which lenses receive day in, day out, is due to the cleaning they get, much of which is not merely improperly done, but is avoidable.

It is important to use a clean lens; but it is still more important not to clean it. The

explanation of this paradox is that a lens should be kept clean by being protected from dirt, not by having the dirt rubbed off it.

In looking at an old lens with a view to purchasing it, the most important thing, therefore, after satisfying oneself that all the glasses are there and in place, is to see to what extent it has suffered by being cleaned. If a new lens of fine workmanship is examined it will be seen that its surfaces have a deep black look, the sign of the highest polish—the exact opposite, in fact, to the appearance we get when the surface is roughened by breathing slightly on it. A lens which keeps that black polish unimpaired has not suffered from rough or excessive cleaning. The best place to look for such injury is in the center of the convex surfaces, particularly the front surface. Closely examined, this will often be seen to be covered with a host of fine scratches, or at least to be perceptibly dulled. A lens in this condition will not give any worse definition than before, but the negatives obtained with it will not be so free from fog. It may not be a reason for not buying the lens, but it is a good reason for getting it at very much less than the list price.

CHANGE OF COLOR IN THE GLASS

There is another respect in which lenses sometimes suffer from age, and that is in change in the glasses themselves. Some old lenses, which have been freely exposed to light for a very long while, will be found to have yellowed slightly.

It has been claimed sometimes for some ancient objective that it gave a particularly fine orthochromatic rendering, no doubt because one or more of its glasses served as a yellow screen. Of course, if orthochromatic work is to be done, it is better to have a perfectly clear lens and to add to it a proper light filter adjusted to suit the plate and the subject, and not to rely on any accidental yellowing of the glass. In looking for this yellowing the lens should be held a few inches from a sheet of white paper, and the color of the paper as seen through the lens compared with its color as seen direct.

It will not be right, however, to jump to the conclusion that the lens has altered because the paper shows a slight tint, as a good many modern lenses are made with optical glass which is not perfectly white, and when the combinations are thick ones, as is sometimes the case especially in large lenses, they look distinctly yellow. Anything more than a slight tint, especially in a very old lens, which was pretty sure to be made originally of a white glass, may, however, be put down to a change. The only inconvenience a yellowed lens is likely to

entail is a lengthened exposure, so that if rapidity is not important this may be ignored.

Some of the so-called Jena glasses were found after they had been made up into lenses not to be very permanent. The air affected the surface, which soon became dull and the lens useless. Of course, as soon as this was discovered the use of such glass was either abandoned altogether, or was limited to those glasses which were cemented with Canada balsam between other glasses and so protected; but a few such glasses undoubtedly got onto the market. By this time they have probably deteriorated to such an extent that it is very unlikely they would be usable and the defective surface or surfaces should be seen at a glance.

CRACKED OR CHIPPED LENSES

Next to the injury inflicted by vigorous cleaning, the most likely cause of detriment is a knock or a blow, caused generally by dropping the lens. It may be that this will cause the glasses to crack, or a piece to chip off. Contrary to what might be supposed, such an injury is not in itself any great harm, except so far as the selling power of the lens is concerned. One of the most useful lenses the writer possesses is a large old portrait lens, which certainly works as well now as when it was made, in spite of the fact that there is a piece the size of a sixpence chipped off one of the glasses, the rough surface left being covered over with black varnish. A crack might similarly do no harm.

But a crack or a chip, if not itself much detriment, is evidence that the lens has had a severe blow, just as a dent on the mount would be; and it should be treated in the same way—that is to say, not as an injury in itself, but as a warning to the purchaser to look very carefully for any signs of other ill effects from the same blow.

Such ill effects would be a real "strain," not the kind of strain already referred to. Unfortunately, it is not easy to see such effects in the lens itself. The glasses might be thrown into a state of stress, or they might be shifted one on the other, or perhaps thrown out of center as a whole. None of these changes might be noticeable in an examination of the lens, though their effects would be visible enough as soon as one came to try it. For this and for other reasons, therefore, no lens should be bought second-hand without making a test of it.

MAKING A SIMPLE TEST

The ordinary trial of a lens by taking, say a landscape photograph with it, or exposing a plate on the first subject that hap-

pens to come in the way, is of no use at all for this purpose. The subject itself has, near and distant objects in the center and at the edges of the picture, and, however good the lens, we cannot expect to get all these well defined at once with its full aperture. In fact, the better the lens the worse impression it might create on the mind of the photographer who has not had very much experience in examining lenses, since the fine definition which it would give in one part would make poor definition elsewhere all the more conspicuous.

A test subject must be arranged, and the best for the purpose that is likely to be at hand is a flat wall with a wall paper of fairly distinct pattern. The camera is set up opposite this, as far away as can be managed, provided the whole of the focusing screen is covered with an image of the wall paper; the camera is carefully leveled and arranged so that the front is parallel with the wall. Then, with the lens opened out to its full aperture, we can see at once, by focussing the wall paper as sharply as possible, the character of definition which it will give, and form some opinion generally on its performance. By focussing first the center and then the edges we can see whether it has a curved field, and, if so, to what extent, and at the same time can see the nature of the marginal definition.

A piece of card ruled with two sets of lines at right angles to each other may be attached to the wall so that its image comes at one corner of the screen. Then, by focussing first one set of lines and then those at right angles to them, we can form an idea as to the astigmatism present.

Such a test may not seem so valuable as one made on one of the subjects for which the lens is to be used; but actually it is far and away more useful, and will tell the observer more of the way in which the lens will do its work than many trials on landscapes or buildings. The chief difficulty that will be encountered will be to compare what the lens will do with what it should do.

DIFFERENCES BETWEEN LENSES

The differences of lenses are differences of degree. Two lenses may both work at the same aperture, be of the same focus, and "cover" the same size of plate, but their behavior may be very different. One may cover the plate crisply to the extreme corners when tested on a flat subject; another may cover it just as well, but with a flat subject may need the corners to be focussed separately from the center; a third may cover after a fashion, but with some falling off.

In order to tell what is good and what is bad needs some experience; but if the pho-

tographer already has a lens he knows to be a good one he can compare the one tested with it and so form some notion of its relative quality.

In all such tests there are two things to remember. One is that the test should be made with full aperture, except when a comparison is to be made with another lens, and then one test at least should be made with both at the same aperture. The other is that the relationship between focal length and the size of plate covered should be allowed for. A very poor twelve-inch lens at $f/8$ might cover a quarter-plate perfectly, whereas it would require a very high quality four and a half inch lens to cover the same size as well at the same aperture.

REPOLISHING AND REPAIRS GENERALLY

A word on another point may be added in conclusion. It is not wise to get a lens which needs any optical repair, unless it is exceedingly cheap and of a pattern still made and sold by its maker. Otherwise, the cost of replacing one of the glasses would be quite prohibitive. Repolishing the glasses is also not a thing to be regarded as practicable. Now that lenses are made in quantity, the expense of dealing with a single one is out of all proportion to the cost of a new lens. At the present time, with all the lens makers working at high pressure on optical munitions, no work at all of this kind is likely to be obtainable. Unless, therefore, the lens it is proposed to buy will do the work required without further modification than the purchaser can himself carry out, such as blackening the mount, it is best to have nothing to do with it.—*Photography*.

The Photography of Silverware

A FRENCH writer suggests the employment of refrigeration when photographing jewelry and plate, with a view to avoiding the reproduction of troublesome reflections on the metal surfaces. This may, of course, be done by dusting on a fine powder, such as talc, with a tuft of cotton wool, but that is a very imperfect remedy for the trouble. In the case of a cup or vase, the better plan is to fill the vessel with water and to bring up against it at the moment of exposure a few small pieces of ice or to use a refrigerant. The effect of the lowering of temperature is to cover the surface immediately with a very fine vapor, which follows exactly the contours of the object, subdues the reflections, and allows of a faithful reproduction being made.

"My Baby"

by

John Atrén

with

Morris Burke

Parkinson

of

Dorchester,

Mass.



Stock Solutions vs. Freshly Mixed Developers

A CORRESPONDENT recently asked for a method of making a stock solution of Monomet. It is probably stale, but I expect that it is so stale as to be startling, hence I will quote the oft-quoted advice given by "Punch," to those about to be married—"Don't." I have not had a stock solution of any sort of developer in my studio for fifteen years. More than that, I stopped using a solution of pyro in 1893. My reason was that, while pyro could be kept clear in solution by means of organic acids it could not be prevented from deterioration. The results from freshly made

developer were noticeably superior to those obtained by a three or two days' old solution. I don't say that a good negative was not obtainable from stock solutions, but I do say that one cannot be so sure of the same delicacy of gradation from a stock solution of pyro of undeterminate age, as can be had from a freshly-made solution.

"Too much trouble," you say. Not at all. It is less trouble when you are used to it to make up developer by this method than by using a stock solution. I began with pyro in the days of dish development, and my standard solution was 2 grs. to the ounce of

finished developer; 16 ozs. was the common amount for a dishful of finished developer; 16 ozs. was the common amount for a dishful of plates, and a boxwood mustard spoon could be trimmed so that with a little care 8 grs., with negligible variation, can be taken up of the resublimed product. Therefore four of these spoonfuls would give 32 grs. Later I found a small tin cover which would measure 32 grs., and the mustard spoon was kept for rare times when one plate was developed in a dish. My method is to dig into the pyro with spoon or cover and scrape off the surplus with a certain amount of pressure against the side. A little practice gives accuracy.

In the early days we used crystal of both sodas, so a stock solution of those salts was necessary; but later, in this country, when we began to use the product, with most of the water of crystallization removed, I dispensed with the stock solution of sodas.

My present method is as follows:—Supposing I want to make up a solution for an 8 x 10 tank for plates, I have a cover of a platinotype tin, trimmed so that when level full it holds the proper amount of mixed sodas. Accident rather than design got me in the habit of using a smaller cover for pyro, so that cover filled twice gives me the exact amount I want in the finished developer.

I use a pint graduate nearly full of water to make the solution, first pouring in the measure of sodas and stirring immediately; I even begin to stir before I drop in the sodas; by this method and with water about 70 deg. F., a small amount of stirring is enough. When the pyro is added, three or four turns of the stirring-rod and the solution is complete. At times a few small lumps are in the bottom of the graduate. I decant carefully, leaving these in the graduate, as they would make dense spots if they touched the plate; but the quantity is always less than one per cent of the whole, and, therefore, negligible.

Having modified the temperature to suit the season, and when the plates are loaded in the cage and inserted in the tank, I turn the matter over to an assistant, whose "forgettery" is not so persistent as mine.

Similarly, I mix up developer for paper. I am at present using Serchol (no "Hun" products for me, even if they are made in U. S.). I have seen no reason to vary from the proportion of four of hydroquinone to one of Serchol, so I weigh out 4 ozs. of hydroquinone and one of Serchol, put in a wide-mouthed bottle or tin can, shake for a quarter of a minute, and a complete mixture results.

For paper developers I use the whole amount of water that I use for the devel-

oper. I measure and pour in the coal-tar salts, stirring but little, and add the sodas after, with stirring.

I think I ran across a rather good idea in a stirring-rod a year ago. Glass rods in the aggregate are costly, because breakable. The worst part of it is that they get broken at inconvenient times; so one day, with a broken stirring-rod in my hand, and ire in my soul, my eye caught a bit of brass rod about $\frac{3}{8}$ of an inch in diameter, and I had at once a perennial stirring-rod. I have four of them now; there are usually only two or three of them visible, but they don't get broken, and when lost they turn up.

The first objection made to this system is that it is inexact. I wonder how many photographers have made investigations as to the degree of exactness necessary in making up a developer. For reasons too numerous to mention, I use neither tobacco nor "Scotch"; but a man can't keep all the rules, so I indulge in a cup of coffee every morning; naturally, I am "persnicketty" about it, and the best woman in the world hands it to me the proper strength, quality and temperature. The only variation is that the cup is more or less full. Now a 10 per cent variation in the amount of sugar spoils the taste. Do I measure the coffee by ounces and weigh the sugar? Not at all. Do I have a stock solution of sugar and a graduate to measure it? I guess not. I know by the way the spoon is heaped how much that particular quantity needs, and I never miss it, unless someone gets me started on Belgium, or unpreparedness, or some such distracting subject.

To come back to brass tacks, viz., plate developer. A certain very carelessly edited publication printed an article three years ago in which the writer advocated a developer containing $\frac{3}{4}$ grain pyro and 14 grs. each of the two sodas to each ounce of developer. When I read it I laughed and wondered how anyone could make a negative out of that. Not expecting to get much of a result, I asked a close friend to sit for a shot, and developed the plate according to this formula. I not only get a negative, but a printable negative, and my friend insisted on ordering from it. It was below the average, but I have seen worse.

Now, if such liberties in that way are possible, what can happen on the other side of the scale? So I made up a developer composed of 6 grs. pyro and 2 grs. each of the sodas, and with this also I got a fair, passable negative. Now both these developers err from the normal average recommended by dry-plate makers by about three times, the first having about a third the normal average of pyro and three times the normal average of sodas; while the sec-

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and used three times the normal average of pyro and one-third the normal average of sodas. I'll leave you to figure out the percentage of variation as I'm getting rusty on some parts of mathematics; but to a man up a tree it looks as though large variations of formulæ are admissible if the negative is properly timed and development stopped at the right moment.

But my main contention is that the slight variations in dry-measuring are not nearly as important as the deterioration of solutions, especially pyro. In the case of a sparingly soluble salt, like Monomet, the advantage of handiness is obvious, because the carbonate of soda following it into the water helps the solution.

Some will fear the deterioration of the sodas when mixed. My experience is that even at the end of six months there are no noticeable signs of change, for I deliberately kept a small tin of mixed sodas for six months, and used it in comparison with some freshly mixed, and could observe no difference.

I ordinarily mix 5 lbs. of the sodas, roll-

ing them over and over on a bench in an open newspaper, carefully breaking up any lumps which may show.

I have purposely refrained from formulæ because nearly everyone has his own pets, and the others are safe in using those given by manufacturers; but to arrive at the weight that the tins ought to hold, I reduce the formula to so many grains of each ingredient to 1 oz. of water; by working this out accurately, tin or other suitable measures for the ingredients can be made for the quantities most frequently used. Those who habitually use the decimal system will have a much easier time. For modifications of the standard developer there are, on my mixing-table, various unmixed coal-tar products and carbonate of soda and sulphite of soda in original packages. I don't often modify, but when I want to I can do it more readily in this way, and with more certain results than with a stock solution of uncertain age. In any case, my advice to those about to make up stock solutions is—Don't!

—R. W. Harrison in *B. J.* of P.

Bringing in the "Prospect"

BY THE RECEPTIONIST

WHEN an old customer hasn't been to the studio for some time, the boss soon finds a way of letting her know that he's still carrying on business at the old address. Every few months he makes a point of going through the books and picking out the names of all customers we haven't heard from within the past year.

It's great fun to listen to his patter as he comes across the different names. "Mrs. Gillingham—let me see now—isn't it about time she was wanting some portraits of that stunning daughter of her's who's just home from school? Mrs. Fenton—great Scott! Her boy's training for a commission at Fort Ben; he'll be getting his commission soon—there's a fine order hanging about that house. The Wellerbeys—too bad! We haven't had a soul from that place since last September twelvemonth—two daughters Red Cross workers—all smart uniforms, too!"

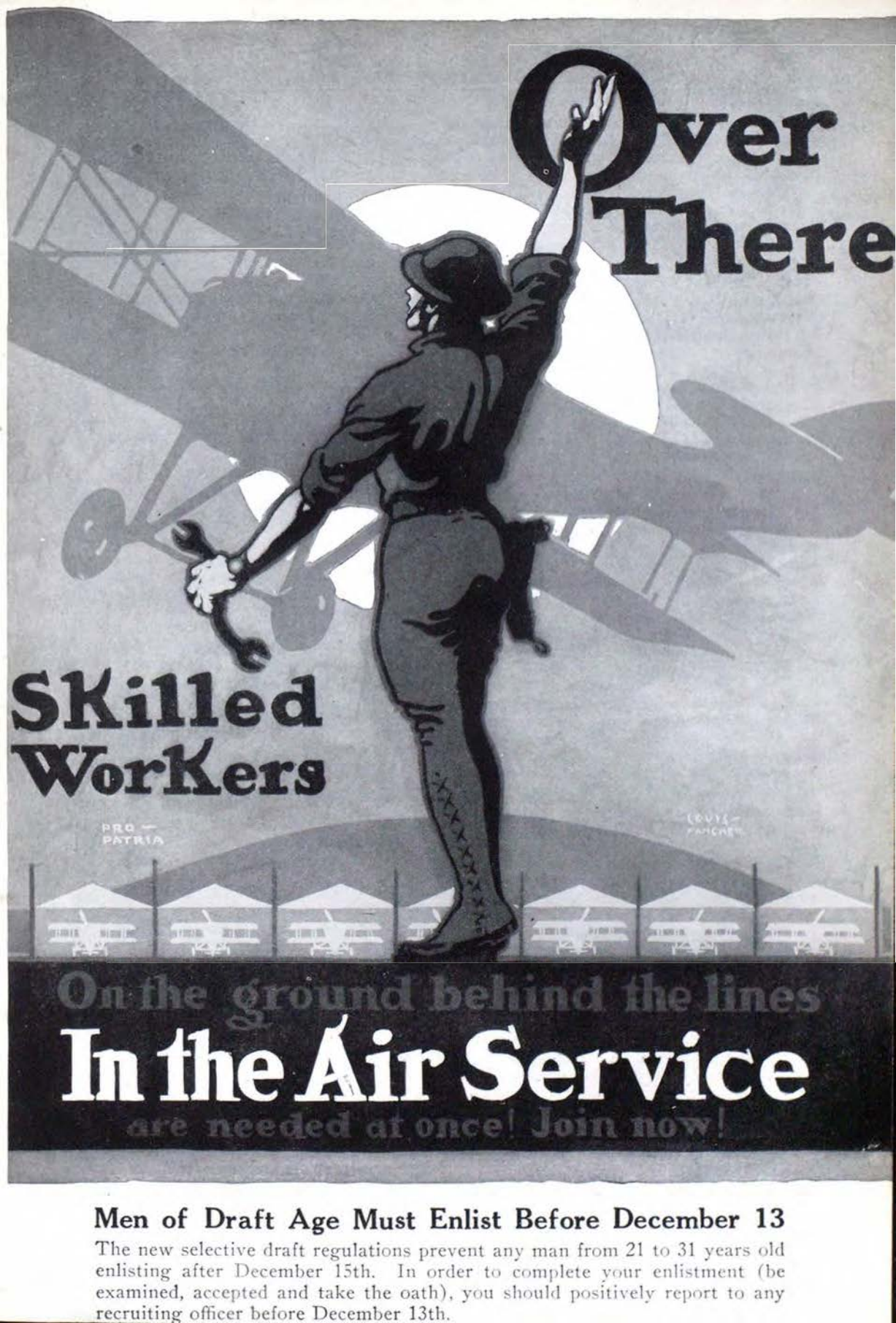
And so he runs on. He knows everybody—I really believe the boss could get up a complete "Who's Who" of this district, and do it all from memory.

When he gets all the names picked out he writes to everyone—or tells me what to write, which amounts to the same thing. It's an eye-opener to see how ingeniously he finds an excuse for writing. I remember

how we pulled in quite a lot of customers the summer before the war. Some of you may think the dodge is too old to be of any use—but the boss knows his district and understands his customers.

If you know our window at all, you will have guessed that one of the boss's hobbies is gardening. Of course, he boasts a lot about his roses and other flowers, but I don't mind that so long as he brings me in bunches of fresh blooms twice a week for the window, and keeps my vase on the reception-room table well filled. Well, that season his garden and greenhouse were perfect pictures, and, as he has always prided himself on being an expert in autochrome work, he hit upon the idea of adding to his series of flower studies, and having an exhibition of photographs in natural colors. He got up two dozen of tip-top quality, all 5 x 7 size. We rigged up a contrivance in the reception room for showing them, and I must say they looked stunning.

When all was ready we wrote to our customers and to anybody else in the district who was keen on gardening. The letter simply said that we were showing a very fine set of natural-colored photographs; that the subjects were all flowers, and, apart from being good examples of what could be done by photography in reproducing colors,



Over There

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On the ground behind the lines
In the Air Service
are needed at once! Join now!

Men of Draft Age Must Enlist Before December 13

The new selective draft regulations prevent any man from 21 to 31 years old enlisting after December 15th. In order to complete your enlistment (be examined, accepted and take the oath), you should positively report to any recruiting officer before December 13th.

they were of special interest to all garden lovers. It ended by inviting them to call and see the pictures sometime before the end of the following week.

It's surprising how it brought in the customers. Of course, nearly all of them had heard of autochromes, but the majority had no idea that such charming colors could be actually photographed.

After showing them privately for a time, we fixed up one so that it could be seen in the window. The boss fitted it into a kind of box with an electric light inside, and it showed up splendidly. We displayed a card inviting anyone interested either in color-photography or horticulture to come in and see our little exhibition. We kept them on view for a fortnight, and they not only renewed our hold on a lot of old customers, but brought in many who had never been to our studio before.

Apart from merely sending a reminder to old customers, it is part of our policy to write whenever an opportunity crops up; and it's surprising what a lot of opportunities can be found when we take the trouble to look for them. Whenever the boss gets a pleasing negative (and that's a good many times in the course of every week) he makes a point of writing to the sitter, about a fortnight after her order has been delivered, to ask permission to show her photograph in the window. It isn't that he's afraid to show it without first getting her consent: it's because he knows that most people take it as a compliment to be asked. He knows, too, that it's a capital opportunity for following up a customer and getting her to increase her order.

Of course, he words his letters in a way that is likely to rouse the customer's curiosity. One of his methods is to say that he has been trying some new effects and that her portrait, done in the new style, is so successful that he would like her permission to show it in the window. The point he is careful about is that the specimen shall be quite different from the style of portrait already supplied.

Then there's another point. We can't very well ask permission to show a photograph and then not put it in the window when the customer consents. So we are constantly changing our samples, and passers-by have got into the habit of expecting fresh faces every week.

We bring off many a good order in this way. But that's only half the story. The main thing, the boss says, is that it keeps him from getting into a rut. Even if he sticks to half-a-dozen favorite styles for the bulk of his work, he has to be always getting hold of novel effects for the window.

As he says, new ideas don't grow on black-berry bushes. They need a bit of looking for—and he's on the lookout for them every blessed day of his life. I don't believe there's a photographer in the country who's so ready to try a new paper or a new tone, a new mount or a new style of framing. Of course, he tries a lot of things that he never uses again; but every once in a while he finds something that helps him to do better work—then he holds on to it like a bulldog.—*Professional Photographer.*



Odds and Ends Learned by Experience

I LEARNED the following odds and ends in my first few years of photography, some of them by bitter experience. I put them forward for the benefit of any to whom they may be useful.

A light-tight wooden box for exposed plates saves time and risk. If you haven't one, get round the boss to have one made.

A broken focussing screen can be replaced *pro tem*, by an old negative, cleaned and matt-varnished.

Stagnant developer is not bound to remain constant throughout its volume. Parts may become cooler or weaker than others. Give your tanked plates an occasional move.

Where it is possible to warm the developing-room in winter, it is better, and sometimes cheaper, in the end, than constant dilution of the solutions with hot water.

Keep a standard print in the dark-room. Stuck onto a clean glass and with the back varnished, it will last for years, and it saves carrying half-fixed prints out into the daylight to examine depth.

Fingers were not made for registering temperatures. The wrist is a better judge, but the job rightfully belongs to a thermometer.

"Rocking the dish" is not synonymous with "slopping the bench." Violent agitation of the developer only helps it to oxidize.

A weak (pink) solution of potass. permanganate will turn color if an unwashed or badly washed print be immersed in it.

Eruption on the hands and arms is not always due to metol. I have seen two serious cases where nothing worse than hypo-alum was ever touched.

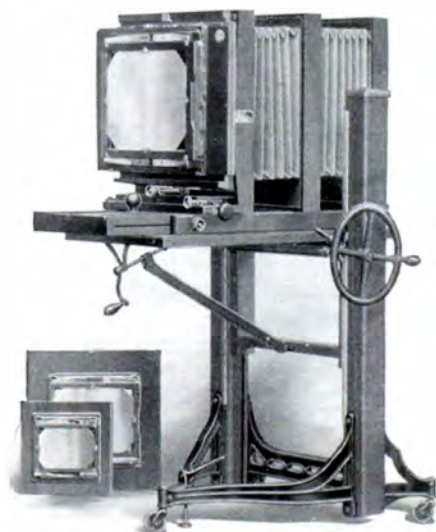
Rubber gloves that have been in the hot bath should be washed before drying, otherwise they may soon fall to pieces.

Plenty of weak light in the dark-room is better than a minimum of strong light. Red light is the safest for plates, though green has been tried. I have developed hun-

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The operator can make full sized negatives, or by the use of diaphragms and lateral movement of the sliding carriage, two 7 x 11 negatives on the same plate with the 11 x 14 back, or two 5 x 8 negatives with the 8 x 10 back.

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dreds of ordinary, slow, and process plates in yellow light, obtaining better results, owing to easier judging, but to be safe this needs experience.

Artificial light for retouching should be tinted blue or green. This is easier on the sight, and shows up the work better.

Whatever your branch of the business, remember that "Sufficient unto the day are the negatives therof," and don't leave any of them till tomorrow.—J. H.

The Individual Impression

TO get a snapshot one need only glance at the subject. To obtain a picture one must *see* the subject—see not only what is presented at the time, but also realize the changing moods and fleeting expressions which combine to make the personality of our subject, or use one's technical skill in composing the desired pictorial effect. It is here that the personal element plays such an important part. The seeing life beholds much that the casual onlooker misses, and enables one to find that which will best express some soul emotion.

One would reassert that photographic productions may be pictures in the truest sense of the term. People are often quite prepared to pronounce some fine descriptive piece of literature as a "word-picture." So also a musical composition may be a picture. Certainly a painter has the assistance of colors for the production of his picture, and there are those who seem to think there is some very special virtue in the colors, and that the use of a lens, a chemically prepared plate, and a piece of paper at once debars any production involving these from being a picture. But the pigments are merely messy chemical productions, the brushes used have had a very intimate association with a camel or a hog, and the hand that wielded the brush and manipulated the pigments is, we are told, the descendant of a monkey's paw.

The apparatus and material used do not make the picture. The personal element is the great factor in its production, and the photographer, young or old, who can bring this element to bear in his productions, utilizing to advantage whatever means science has placed in his power, may claim to rank as an artist.

If you're grumbling at your photography, what's the matter with *YOU*? If you look *without*, you're doomed to failure, often as not! For you will always see a molehill that you can turn into a mountain. But if you look *within*, and heed what you see, you cannot but succeed.

At all events, one should never trust to *luck*, in photography. The man who just "trusts to luck" deserves bad luck, and usually gets it.

No Short Cut to Proficiency

FOR a photograph to be artistic, it is requisite that it should be made by one who has artistic impulses and is guided by artistic principles. There is no short cut to proficiency, and no one can teach another to make a picture, or even to shoot straight, for, when all has been said, much depends

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in the last resort upon the individuality and temperament of the individual."—*Antony Guest.*

"Art aims not at the resemblance but at the expression."—*George Sand.*

"The difference between the use of the model by the painter and the photographer: To the one he appears as a *suggestion*, to the other he is the fact. The photographer, therefore, must be endowed with such distinguished gifts, or conversant with such clever devices, as will make the model forget that he is a model. When the subject does this, the real self is at the artist's command. . . . Very gifted photographers may secure this result through conversation. . . . For others a third person, who may engage the sitter and leave the maker of photographs free to work untrammelled and seize 'the fertile moment.'" —*H. R. Poore.*

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"He was the most eloquent orator I ever listened to. He painted the benighted condition of the heathen so clearly that my deepest passion was aroused. I resolved to break a lifelong habit and contribute a dollar to teach the gospel to my benighted

brethren. As the speaker proceeded I decided to make it five dollars, and then ten. Finally I knew it to be my duty to give to the cause all the cash I had with me—twenty dollars. The pleading of the orator wrought upon me still further, and I decided to not only give all the cash I had with me, but borrow twenty dollars from my friend who sat at my side. That was the time to take up the collection. However, the speaker proceeded, and I lost interest and finally dropped off into a sweet slumber, and when the usher woke me up by prodding me in the ribs with the collection plate, I not only refused to contribute, but am ashamed to state that I stole fifteen cents from the plate."

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A GREAT number of uses can be made of a practical method of waterproofing prints, one of which might be the waterproofing of prints which are to be sent to the soldiers in camp or in the trenches. The soldier and his belongings may have any number of drenchings but if the photographs he carries are waterproofed they will not be injured. The experiments which brought about the discovery of a very satisfactory method were the result of inquiries for a weather-proofing solution for large display prints exhibited in theatre lobbies.

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elements, it materially detracts from the appearance of the prints. The surface of a varnished print is far from pleasing, and the color of the varnish destroys its tone, so it is far from satisfactory.

Kodalak W. P., a very fine transparent lacquer, has been found to answer every requirement, and in no way injures the print. The film of lacquer left on the print is so thin that it scarcely changes the nature of its surface, and it is so transparent that there is no perceptible change in tone.

The lacquered print is practically as flexible as one that has not been lacquered, and as both sides of the print are coated, it does not have a tendency to curl. Prints that have been dipped in Kodalak W. P., are impervious to moisture, and may be immersed in water, or their surfaces cleaned with water without injury, so long as the print is not broken or torn.

Kodalak W. P. may be used for coating unmounted prints, or the entire mount and print may be coated. Only one coating is necessary for ordinary wear, though if a thicker coating is required, the operation may be repeated as often as desired.

To waterproof the print it should be thoroughly dried and immersed in a tray of Kodalak W. P. for a few seconds, drained, carefully removing any air bells, and hung up to dry in a warm room. The drying room should be well ventilated, as the Kodalak and vapors from same are inflammable. If the print is moist or is coated in a moist atmosphere the Kodalak will not adhere perfectly.

The solution is volatile and should be used in as small a tray as will accommodate the print, to prevent unnecessary evaporation. No harm is done by the evaporation of the solution, but the print will take a thicker coating than is necessary and a given amount of lacquer will not cover so many prints. Sixteen ounces of solution

should lacquer about one-half gross of 4 x 6 prints, or their equivalent.

Dipping or flowing of the print is the most satisfactory method of application. Many stock houses carry glass dipping baths in stock, which will answer fine for dipping prints, as only a very small surface of solution is exposed to the air in these narrow, deep tanks.

If old prints are to be waterproofed, they should first be thoroughly cleaned by an application of soap in alcohol, which will remove all dirt and grease. The liquid green soap, which can be obtained from any druggist, is most satisfactory. Dissolve one ounce of this soap in eight ounces of denatured alcohol. Apply a little of the solution with a soft cloth and wash off the excess soap with alcohol alone. When cleaned and thoroughly dry the prints may then be waterproofed.

If any waxy preparation is used for ferrotyping prints, they should be freed from grease as above. This can be obviated by using talcum powder or polishing the ferrotype plates.

With reasonable care, the above method will waterproof prints so that they will withstand rain and damp weather and permit of their being cleaned with water without moistening or injuring the print.

Let it be known that you can waterproof prints that are to be sent to the soldiers, demonstrate that the prints are waterproof and you will have an added selling point for your pictures.

Kodalak W. P. may also be used to prevent prints from curling. If applied to the backs of prints with a brush, the prints, when dry, will lie perfectly flat. The film of lacquer acts as a backing and counteracts any tendency the gelatine emulsion may have to curl the print. It has the additional advantage of making the back of the print waterproof.



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