



ABEL'S



PHOTOGRAPHIC



WEEKLY



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SATURDAY, DECEMBER 30, 1916

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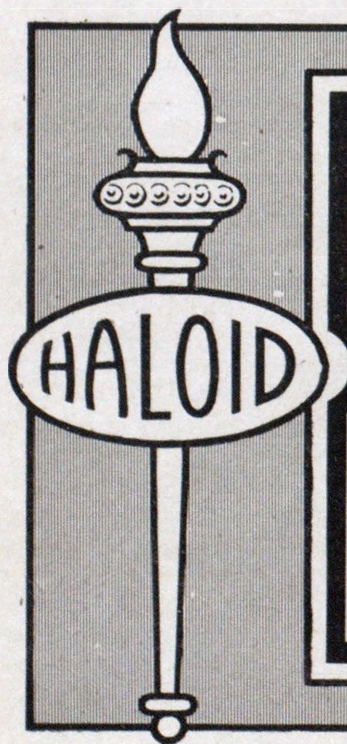
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ABEL'S PHOTOGRAPHIC WEEKLY

A JOURNAL FOR THE PROFESSIONAL PHOTOGRAPHER

Member of Audit Bureau of Circulations

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In Passing By

GOOD-BYE, 1917. The Old Year passes and we have few regrets at its passing. If the much-longed for peace comes to the warring nations in 1917, the New Year will surely be a welcome one.

The year just past has brought little change in the photographic business, unless we except the sudden and really astounding supply of American made developers. A year ago, photographers were worrying themselves as to how they were to fill the place of metol and any and every price was willingly paid for every scrap of metol that could be gotten. These were the people who had little faith in American ingenuity. Today it is almost difficult to list all the preparations offered and the end is not in sight.

Discounts in plates and papers have stiffened. This was to be expected, but the photographer has still little cause for complaint on this score. What is really much more disturbing is the price that has to be paid for food and we are promised still higher prices. They do not seem justified, any more than the 100 per cent increase in the cost of the paper we use for our publications.

We have again to note the death of several of our friends, men who were more or less well known in the profession. It seems unreasonable that good fellows like Don Scott, Wheelock, and others should be called away in the prime of their lives, but such is the way of life.

Considering all things, the profession has had a fairly good year. Reports differ somewhat as to the extent of Christmas business enjoyed by our readers, but in all cases it was at least as good as last year's, and in most cases a big improvement. One reader wrote us that it was the best season in eleven years. Of course, local conditions have much to do with a photographer's prosperity, but then again, it will probably be found that the studio that is consistently turning out excellent work and advertising that fact in a systematic, catchy way, is the one that is having the best season of its existence. The steady plugging of "The Photographer in Your Town" idea and the "one unpurchaseable gift" slogan by the Eastman Kodak Co., has a value that can scarcely be calculated, but it is impossible to figure otherwise than that photographers are tremendously benefitted by it. It should be the sincere hope of the profession that the E. K. Co. will not tire in their efforts to interest the public in photographs.

Meanwhile, let us all wish the very best from 1917.

OUR XMAS GREETINGS. As usual, we have been overwhelmed with Christmas Greetings and good wishes from our friends. The individual card of greeting is fast pushing the ready-made article to the wall, we note, and the cards this year are more artistic than ever.

The cartoon card which promised to become very popular a few years ago, following the idea started by Pirie MacDonald and Julius Strauss, seems to have died out. A few are photographed drawings. As every mail is still bringing in remembrances from our friends, we will defer our acknowledgments until next week.

"ECHOES"

The Exhibition Controversy

By G. HANMER CROUGHTON

STILL there is no answer to the appeal of the executive officers for expressions of opinion from photographers as to suggestions for the more satisfactory management of the conventions.

One would think that if there was any thought that might give a hint to those in charge, of something that might be added or of something that could be omitted with advantage, the opportunity offered of publishing their views would tempt photographers to accept it, but unlike their British brothers they do not appear to be anxious to jump into publicity. It became a state joke in England that the Britisher would write to the "Times" on every trivial occasion; (and is yet—Ed.)

I receive letters from photographers who are personal friends, who write upon certain matters that have occurred at conventions in the past, but particularly of the convention in Cleveland, but they ask that their letters should not be made public, although I have the permission of one or two to refer in a general way to the contents.

The one general idea seems to be that not enough consideration is given to the rank and file or what one man calls "the little fellow."

Speaking of the demonstration, he says in the first place it was impossible to see all that was being done, and what he did see was of no use to him. He has no dozens of sitters waiting that he should have to try Mr. Harris's machine gun practice, and the high brow stunts of the others were above him.

He goes on to say that he thinks some recognition or prize should be given to what he calls "bread and butter" stuff.

Another relates with triumph that his pictures which were rated under sixty at the National, received a rating at his state convention of eighty-five, and he repeats what

he told me at Cleveland when, in answer to my criticism (which he requested), "Oh! my customers don't trouble about those things. All they look at is the likeness and they were so pleased with these that I got a forty dollar order from them." That is all right, if that is the height of his ambition, and as to the rating at his State Convention, that is a matter that depends upon the quality of the judges. If they judged from the technical point of view, they might be justified for the high rating, for technically they were fine photographs, but from the pictorial point of view they were lacking in several qualities that make a pictorial portrait.

The values were completely out of harmony and this is a defect that reduced the rating on many photographs of high technical value. The necessity of keeping the tone values in harmony is not generally understood. The flesh tones may be all right and the drapery in tone with the flesh, but if there are competing patches of light or shade in different parts of the figure or background, the tone values will be out of harmony and that is a cardinal sin among artists. A painting having this defect would be rejected in any exhibition, and yet at least eight out of ten photographs exhibited at conventions have this fault in a more or less degree.

It should (I think) be understood that the exhibition at the National Convention should be devoted to the highest pictorial as well as technical excellence; it should be an exhibition of what can be attained by a combination of artistic skill and manipulative excellence, not, as it is most frequently, the catching up at the last minute of anything that comes to hand. The ordinary work of the ordinary sitter is not what is wanted. Some exhibitors tell me that they could not sell some of the pictures they see at conventions to their customers.

SERMON IN BRIEF No. 193

Special to Abel's Photographic Weekly

TO HAVE FRIENDS, BE ONE

BY CHARLES GRANT MILLER

"The only way to have a friend is to be one."

—Emerson.

THERE is reason for a suspicion, if not more than a suspicion, that the art of friendship is dying out among us.

The friendship of the ancients was very exacting. In modern times we should look a long while for such mutual regard as that of Damon and Pythias.

Friendship in our crowded days covers a wider area, but as in the case of all extensive development, it has lost intensively.

Instead of friendships, we have visiting lists. Not those whom we love, but those whom we would propitiate, we invite to dinner. Those who would propitiate us invite us in turn and permit us to eat their food and air our views.

We live, alas! in the suburbs of each other's hearts.

The man without friends can accomplish very little in this world. Depending on his own strength alone, his mightiest endeavors are as nothing. At harvest time he gathers nothing but leaves.

But the man with friends—strong friends, true friends, and loyal friends—who have confidence in his integrity and ability to do things, has great power. When he leads they will follow him, and all working together unitedly bring victory. This is the reason why some men achieve great success with moderate abilities, while their more brilliant competitors fall short.

This is true in every business and profession. It does not matter so much whether a man has enemies or not as that he has true friends who will stand by him and never desert him.

To have loyal friends is worth all else. To have friends who can be depended on is to gain success in life.

To have true friends you must be one; the quality of loyalty you get depends on the quality you give.

How do they know if they have not tried them? At any rate it would be good training for them if they would, when they get a likely sitter in their studio, make some extra efforts to get something above their average.

One man said to me at Cleveland: "That would be all right if I got the style of sitters some of these big-wigs get," but to judge from his work he would have just the same sins with the best dressed sitter as he had with his usual customers. That is a fallacy that should be banished.

One of my most cherished possessions is the figure of a homely old woman mending a pair of pants. It was pronounced the gem of the convention at which it was exhibited,

and it is a picture that, both technically and pictorially, is of the highest value, not only for its composition and its tonal harmony, but for its feeling of personality and character.

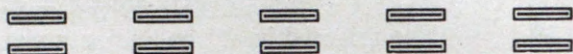
Get rid of the idea that you must have silks, satins and furs, and handsome women to wear them. Good pictures can be and have been made from the most homely people in homely surroundings; but train your eyes to see the harmony of tone, look well to the hands, cuffs, lights striking upon polished furniture, etc., etc.

They are little things, but they will mar the harmony if they are not subdued to keep their tone value below the principal object in the picture—the face.



Roy E. Phelps, Spokane, Wash.

The BEST ADVERTISING "STUNT" I EVER TRIED



Going After the Duplicate—A Calendar Suggestion

ROY E. PHELPS, of the Roye Company, Spokane, Wash., sends us two ideas of his which have proved very profitable, and since he doesn't know which of the two is better we are giving them both.

The first is very simple. On the back of all mounts, or on the back of the print itself, when unmounted, Mr. Phelps places a sticker referring to the Roye Company—in the case of public groups and views, one reading, "For duplicates write....," and on private work, "Home Portrait by....," giving the full name and address of the studio. The stickers are so small and plain as to be inoffensive without being conspicuous. They are printed in blue on slips $1\frac{1}{4}$ inches wide by $\frac{3}{4}$ inch deep. Mr. Phelps says this little idea has been in use for six months, and has increased the re-order business more than 50 per cent over the same period last year. Which would make it seem well worth while, for the cost of the stickers is immaterial.

Mr. Phelps' second idea is this: On all portrait orders delivered in November and December he makes an extra print, from which he cuts out a little head and places it on a plain piece of bristol with a calendar pad and his signature, with a piece of bristol stuck on the back to make a support when folded outwards. As this sounds rather indefinite, we are reproducing on another page one of these little calendars. This he sends out with the order complimentary, and usually gets about \$100 worth of business making up duplicates for customers. Which also seems well worth while, considering the small amount of trouble necessary.

It's a little late for this idea now, but we recommend that a memorandum be made of it, and the plan tried when next November comes around. After all, it's only ten months to November now.

Why Not Try It Yourself—This Means YOU

*The
calendar
sent out
by Mr.
Phelps.
See the
Best
Advertising
Stunt on
the opposite
page.*



Trade or Profession

THE old useless question of whether photography is a trade or a profession has been raised once more. There is no rule by which we can assign the title of profession to any particular occupation, and the question is on a par with that other one which demands a pronouncement as to whether some type of work is art or not. Many futile attempts have been made to formulate rules on these points, but there is no possibility of anyone ever reducing the matter to one of a formula. The fact is that whether an individual is a professional or a trader, or an artist or a trader, depends entirely on himself, on his motives and his doings, not on the nature of his work. An old architect that we know, being anxious that his pupils should always merit the status of professional men, used to put this question to every prospective new pupil:—"Why do you propose to become an architect?" If the answer was "for the purpose of making a living," that pupil's prospects vanished instantly. The answer wanted was "For the sake of the work," and that is really the only test that can be applied. A man who works solely for the sake of the money that comes in is only a trader, even though his production may be oil paintings; to a professional man the first consideration is the work itself, or, more particularly, its quality, and he only expects cash from it when it deserves such reward. We know some photographers who are as fully entitled to the name of professional men as any architect or lawyer, while, on the other hand, there are many who are traders pure and

simple. In the hands of the former photography is a profession, in those of the latter a trade, and almost any occupation can be raised to the one level or reduced to the other by the individual who practices it.

The Hand-Screen

AFTER so many years of use it is surprising to find that there are still to be found well-equipped studios in which this handy piece of apparatus is wanting. It is undoubtedly the greatest saver of time and labor that has ever been introduced into studio practice, and many of our most skillful portraitists take the fullest advantage of it in controlling the lighting of the model. As usually sent out it is covered with a fine lawn or sometimes with a kind of cheese cloth, but we have seen pale blue nun's-veiling and tracing-cloth used with advantage. Some patterns are made with two rings, one being covered with light and one with dark material, thus enabling a light dress to be toned down while the head is softly and fully lighted. The head-screen is especially useful when working with artificial light, as not only does it soften the harsh shadows of the face, but it does so without cutting off light from the lower part of the figure, which is usually badly illuminated. The complete screen with stand, as sold is to be preferred—although quite steady it is easily carried in one hand—but an excellent substitute can be made with a few yards of stout wire and an old head-rest. Three-sixteenths of an inch is quite stout enough for the wire, and the diameter of the ring may be from 30 to 36 inches.

The Marking of Lens Apertures

VARIOUS methods of marking apertures have been proposed from time to time, but it is generally forgotten that a systematic method involves two things:—The selection of the apertures provided; and the symbols to be attached to them. The latter point has been argued over many times, but the matter seems to have reached no agreement other than that the opponents have agreed to differ and each go their own way, some selecting a symbol indicative of the size of the aperture, and others one showing the relative exposure required. Much less controversy has taken place over the other point, but, nevertheless, two systems are in use. It is generally admitted by all that a desirable series is one in which each aperture requires double the exposure of the next larger one. The series most in use is the well-known one of $f/4$, $f/5.6$, $f/8$, $f/11$, $f/16$, etc., and this was as admirable series in days when the average worker never used a lens of bigger aperture than $f/8$, and frequently used much smaller ones, but nowadays things are different; bigger apertures are common, while $f/11$ is about the smallest that a good many workers ever think of using. A difficulty has arisen here, for while the series provides for apertures $f/4$ and $f/5.6$, both are somewhat rare apertures very seldom provided. It appears that particular designs of lenses have for their biggest aperture suited to normal working conditions one which we may term a natural aperture, and while the natural aperture of the R. R. seems to be $f/8$, that of the highest class anastigmat seems usually about $f/4.5$. If we start with such an aperture, and select a series conforming with the rule that each shall require twice the exposure of the next larger one, we arrive at the following $f/4.5$, $f/6.3$, $f/9$, $f/12.5$, $f/18$, $f/25$, $f/36$, etc. This series will be familiar to many readers who have, no doubt, met with it on certain Continental makes of lenses; and it is, in fact, the series advocated by Dr. Stolze, who, in addition, uses an aperture of $f/7.7$, which comes exactly midway between $f/6.3$ and $f/9$ as regards intensity, the three apertures requiring exposures in the ratio or 2:3:4. It is an interesting experiment to extend this series still further, and the following set of stops may all be considered properly to belong to the series, as the exposure required by each is a definite multiple of that wanted with the next larger stop:—

F numbers—3.6; 4.5; 5.5; 6.3; 7.1; 7.7; 9; 12.5; 18; etc.

Relative exposures—1; 2; 3; 4; 5; 6; 8; 16; 32; etc.

It will be seen here that nearly all the larger stops mentioned are very familiar ones in modern anastigmats, and at first sight this may suggest that the series has considerable advantages. The unusual figures which serve as symbols for the smaller stops discount the system considerably, however, as they are not to be found in any of the ordinary exposure tables or on the meters in general use. This is an unfortunate blot on the system, but one that is easily remedied. It will be noticed that the exposures only begin to increase in the ratio of 2 to 1 from stop $f/9$. If we start from the next larger stop, that is $f/7.7$, the series will be, as nearly as possible, 7.7: 11: 16: 22: 32, etc., which conforms to the system in ordinary use. Adding another stop of $f/4$ we get the following series, covering approximately all the apertures in general use:—

F numbers—3.6; 4; 4.5; 5.5; 6.3; 7.1; 7.7; 11; 16; 22; 32.

Relative exposures—2; 3; 4; 6; 8; 10; 12; 24; 48; 76; 192.

It will be seen that the figures do not in all cases agree exactly with the conventional numbers, neither are all quite exact in themselves. For example, $f/7.7$ takes the place of $f/8$, but the difference between two such apertures is negligible. It is only equivalent to $4\frac{1}{2}$ seconds in a minute's exposure, and its value is much less than that of the errors that ordinarily exist, owing to wrong marking, the varying absorption of glasses, miscalculations of exposure, etc. The aperture might, in fact, be just as well marked $f/8$ as $f/7.7$. Again, the aperture marked as $f/11$ should really be $f/10.9$, the difference between which and the usual $f/11.2$ aperture, is only about three seconds in a minute. All such minute errors are negligible, a fact which our readers would readily appreciate if they knew the actual errors which exist in the stop marking of many lenses, especially of foreign make. One such lens that we frequently use has its largest apertures marked $f/6.8$. Under the system of measurement, which we understand the makers to follow, this should be $f/7.2$, while measured in English fashion it is actually $f/7.5$. Nevertheless, it is an extremely rapid lens owing, no doubt, to its construction and to its material, though, according to these apertures, it should not be much faster than an $f/8$ R.R. Extreme accuracy of measurement or of marking is therefore not of vital impor-

By
 Clarence
 Stearns,
 Rochester,
 Minn.



tance, but assuming that approximate accuracy is needed the last series of stops that we give is an eminently useful one, as it covers practically all the stops usually met with. Of course, only a few of the larger ones will be found in any one lens, but the table with the relative exposure attached will enable anyone to add an exposure number to any of the stops below $f/8$ that do not belong to the regular series $f/4$, $f/5.6$, $f/8$, etc. Thus it can be seen at a glance that $f/4.5$ requires one-third the exposure of $f/8$, and in fact, all the larger apertures can be expressed in simple fractions of the exposure for $f/8$ as follows:

F numbers—3.6; 4; 4.5; 5.5; 6.3; 7.1.

Exposures compared with $f/8$ —1-6, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$.

Reverting again to the matter of method of marking, so far as it concerns the symbols used, those who favor the marking of relative exposures and understand the prin-

ciples will see that this system we have suggested is really one in which the exposure for a stop of $f/2.25$ is taken as unity instead of $f/3.6$ as in the Stolze series. In the U. S. system $f/4$ is the unit stop. In Dallmeyer's system $f/3.16$ was adopted, while in the C. I. system $f/10$ was favored. These systems each have disadvantages as they do not readily provide for many stops in common use. The Dallmeyer and C. I. systems are dead, but the U. S. one remains in use. This does not provide simple figures for stops $f/3.6$, $f/4.5$, $f/6.3$, or $f/7.1$, and so causes trouble when these stops, or others that approximately equal them, are met with; whereas, by taking $f/2.25$ as the unit stop all are provided for most conveniently. We, however, do not favor intensity markings, as they are called, and much prefer the ordinary $f/$ system, with figures added to show exposures for the larger stops alone. Seeing

that $f/8$ is generally taken as the stop for unit exposure in exposure tables it seems best to keep it as the unit in marking the stop values, and then the larger stops can be marked with simple fractions as shown. The actual markings can then be taken from the following list:—

F numbers—3.6; 4; 4.5; 5.5; 6.3; 7.1; 8; 11; 16; 22; etc.

Intensities—1-6; $\frac{1}{4}$; $\frac{1}{3}$; $\frac{1}{2}$; $\frac{2}{3}$; $\frac{5}{6}$; 1; 2; 4; 8; etc.

We have here put $f/8$ instead of $f/7.7$ as it is more familiar, and in practice we should not put any intensity markings to stops smaller than $f/8$, as they are quite unnecessary for use with meters or tables.—*B. J. of P.*

They Stole His Frames for Christmas Gifts

JOHN SHERMAN, of Newark, N. J., received some first-class front page publicity in his local paper recently through the good offices of a thief who took a liking to the hand carved frames Sherman displays in his show-window. The article follows:

Police Judge Themistocles Mancusi-Ungaro today is wondering whether he is a subject for condolence or congratulation. If the latter is the case, the magistrate has cause for priding himself that he has instilled the fear of the law in the minds of certain evil-doers, but if the former conviction prevails—well, the least said the better.

This perplexing problem resulted from a triple robbery of a show case at the photograph studio of John F. Sherman, 565 Broad street. On three different nights within six days was the street display window broken into and pictures and frames removed. The last unwelcome visit cleaned every picture from the display but that of Judge Mancusi-Ungaro. His picture was left undisturbed. Thus enters the problem. Did the judge's handsome face instil fear or did it fail to stir the marauder's aesthetic senses?

In Friday morning's mail Mr. Sherman received a large package. On opening it he found the stolen pictures, minus their frames, and a brief note which read as follows:

"Just what we needed for Christmas. Thanks."

There was no signature and nothing to identify the writer. The returned pictures were complete and in good condition. The only thing Mr. Sherman can now do is to look for a certain party who will distribute a half dozen hand carved picture frames among his friends and relatives as Christmas presents. He values the stolen frames at \$16.

Mr. Sherman is inclined to think that it was the intruder's fear of the law that led him to leave the picture of the police judge alone in the case, after removing the others, for the judge's picture is something any one ought to be glad to possess. Whether the thief thought that at a near date he

would have to appear before Judge Mancusi-Ungaro to answer to the robbery charge and that the magistrate might show him some leniency because he had respected his photo, is a question yet to be solved.

At any rate Judge Mancusi-Ungaro, with his usual good nature, is inclined to admire the thief for his respect of the law. The fact is that the judge does look a trifle stern in the picture in question, and the intruder perhaps did not care to face him, even in photo form, any more than he could help.

It was exactly a week ago yesterday that the thief or thieves paid their first visit to the show case, which is on the street level. It did not cause them any great amount of trouble to force the case open and take one picture and frame. The loss was discovered Monday morning. On Tuesday night a second visit was made and another picture taken. Mr. Sherman was a little peeved at the second visit. In fact, although he is somewhat of a philanthropist, he thought somebody was a little too avaricious.

Friday morning Mr. Sherman viewed his display case to find Judge Mancusi-Ungaro looking sternly at him, in lonely eminence, as if appealing for a chance to tell who had so many friends and was so hard up as to make a wholesale cleanup of the remaining picture frames. Then the photographer became angry. He informed the police.

Making Prints for the Engraver

EVERY photographer some time or other has occasion to make prints to be used for illustrating purposes from negatives which he has in his files. If said negatives happens to be of the soft variety most desirable in straight portraiture, and an additional amount of snap is required he should try substituting the Bromide of Potassium in his normal developer with the same amount of Citrate of Potash, and he will find that the resulting print will in all probability have the desired snap and contrast necessary for half-tone work.—*Gross Professional Photographer.*

'TIS HERE—MAYBE!

Charles Hopp, well known Detroit photographer, recently completed a deal for the purchase of the Biltmore apartment building, the consideration having been—according to reports—about \$120,000. Think how many dozen photographs had to be made to turn out that profit of a hundred and twenty thou.

Mr. George P. Bard, the very well known photographic salesman, is now selling Photographic Mounts, Folders and Photographic Supplies for the F. W. Wolf Company, 807 Prospect Avenue, Cleveland, Ohio. He reports business good. George is so well known among the Photographic fraternity that the boys will all be glad to see him again.

Martin Olsen of Kenmore, N. Dak., is feeling very tickled over the advent of a baby boy at his home on December 14th. Mother and child are both doing well.

The Weekly comes regularly to the work-room but the BOSS has a knack of reading it before I get hold of it. I am nothing but

a poor hired hand, but I love to get the Weekly even if I do have to read it second hand. I get lots of ideas out of it that are a help to me and what helps me helps the BOSS. He and I have many confabs over some of the articles, and I believe that he takes as much interest in it as I do. Perhaps when my subscription expires he will take it himself and then I will try to beat him to it. I have a pretty good BOSS, even if he does steal my paper, but I am laying for him and will get him if he don't watch out. He says that he don't see why there is not more from Texas in it and I tell him that is because there are more like him who don't write letters to you. If he should get busy and tell some of the things that he knows, he would not have room to kick. Received the Book of Advertisements and you just ought to have seen the Boss picking them out.

Wishing you a Merry Xmas and a Prosperous New Year, I beg to remain,

Yours,

J. H. Wilbourn,
Hillsboro, Texas.

The Adaptability of the Eye to the Illumination

[A communication from the Research Laboratory of the Eastman Kodak Co., based in part on recent experimental work by Dr. P. G. Nutting, in the investigation of the behavior of the eye in various degrees of illumination].

WITHIN the past few years very considerable headway has been made in the science of illumination, and many interesting data have been recently obtained at the Research Laboratory of the Eastman Kodak Company upon the sensibility of the eye to various degrees of brightness and contrast in the field of vision. For its measurement and classification novel pieces of apparatus have been designed and made.

Illumination and photography are related in that they both depend on the laws of retinal reaction—the sensitiveness of the eye to light. And knowledge of the laws which govern the action of light on the eye must be of vital interest to the photographer.

Good lighting is that which produces good seeing, and the standard of good seeing is the ability to see detail with comfort and efficiency. Good photography is the proper

illumination and exposure of a subject so that it may be reproduced with detail in highlight and shadow, with bright or dark surroundings comparatively subordinated and a gradation from highlights to shadows, so that a round object will be given the appearance of roundness on a flat surface.

Good seeing is the degree of sharpness by which we observe contrasts and definition in detail, with an amount of light that produces neither strain nor fatigue. It is governed by the amount of light reaching the eye. This in turn has to do with intensity, distribution, and color, depending upon the brightness and contrast in the object, which is determined by its illumination and reflecting power, and also depends upon the intensity or brightness and position of the light sources. The indirect lighting system now so much in vogue may be instanced as an aid to good seeing.

The eye is just like a camera in that it has a lens, it has a sensitive surface, and it has a box between the sensitive surface and the eye, which encloses the sensitive material. The camera, however, differs from the eye in that camera exposes its film for a

limited time: if the subject is dark the exposure is long and if it is light the exposure is short. The eye has to be exposed all the while to the brightness of the scene that is being recorded. The sensitive material in both the camera and the eye is necessarily destroyed by exposure; otherwise we should never know what was happening at all since no image would be produced. In the camera it is destroyed or altered once for all, and the exposure has to be calculated so that the necessary amount of alteration is produced. In the eye the sensitive material is created by the body as it is destroyed, and the amount of the sensitive material or the sensitiveness of the eye is adjusted according to the brightness of the light outside. It is as if in the camera, instead of giving a variable exposure, a fixed exposure were given and the sensitiveness of the material were altered according to the light.

The eye adjusts itself in the range of 1,000,000 to 1, and may be roughly divided into four levels of brightness as follows:—

(1) The brightest—bright sunlight on a white surface; (2) the indoor average illumination during the day, which is only 1/100th of the brightness of bright sunlight outside; (3) the average artificial illumination indoors at night, which is 1/100th of that indoors in the daytime; (4) the level illumination at night outside, which is 1/100th of that indoors at night.

Bright sunlight out of doors, 1,000.

Interiors in daylight, 10.

Interiors at night—artificial light, 1/10.

Out of doors at night, 1/100.

We thus see that out of doors at night it is roughly one million times less bright than out of doors in bright sunlight.

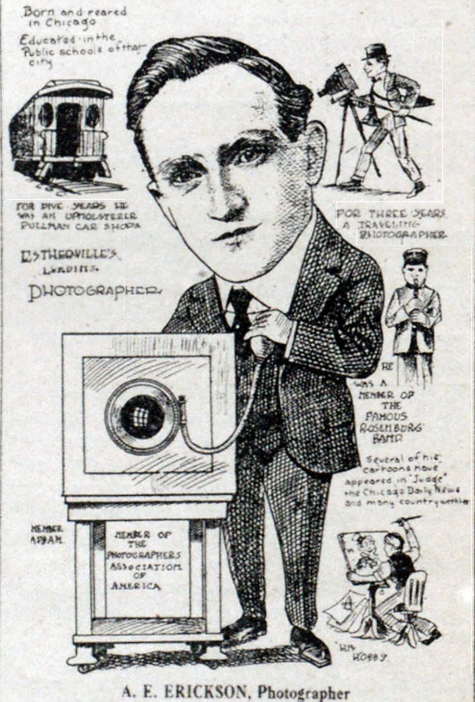
If we could imagine a pair of scales that would weigh anything from a ton of hay to a marble with equally high precision, and would swing perceptibly to the weight of a fly's leg, we would get an idea of the range over which the eye operates.

The brightness of objects seen by the eye depends upon its sensibility. We, therefore, speak of lighting in terms of comparative brightness or conditions of light. The actual brightness of an object is relative to the brightness it produces. An illuminated headlight makes a feeble flicker at midday compared to its brilliancy at midnight.

In order that the eye may adjust its sensibility, there elapses a certain amount of time after the change in the brightness level of the objects around so that the eye has to take a certain amount of time to adapt itself. The iris diaphragm shuts and opens almost instantaneously to make a protection while the retina is adjusting its sensitiveness. In adapting itself to a small

change it acts quickly, but when going from bright sunlight to darkness it requires about half an hour to adapt itself almost completely; total sensibility, however, is not reached until the end of an hour or so more. Where the contrast is less severe, as in passing from a room brightly lighted by artificial illumination to a dark room the time of adaptation is considerably less, about five or ten minutes. The sensitiveness of the eye when coming from darkness into sunlight decreases for about an hour. It is found experimentally that the retina takes longer to grow in sensitiveness than it does to lose sensitiveness, so that if a light varies rapidly from bright to dark, the eye loses sensitiveness as the light becomes brighter, and does not recover so much as the light becomes darker, so that you get a diminishing sensitiveness when there are alternate bright and dark periods, as when passing along a street at night lighted by street lights.

Men of Affairs in Estherville



A. E. Erickson, of Estherville, Iowa, has been drawing a series of cartoons of the business men of his town for his local newspaper. Here's his own sketch of himself. Note the prominence given to the fact that he is a member of the P. A. of A.

In viewing or focussing interiors the best results will be obtained if the eye is stepped down from the high-lights through the half-tones to the dense shadows, giving it an opportunity to accommodate itself to the steep drop in intensity between the extremes. It will perform its work more quickly and with less fatigue than if the change was made direct from the highest to the lowest—the detail will appear more quickly and the eye will be sufficiently accommodated to work at maximum efficiency.

Lighting contrasts vary considerably in living rooms, workrooms, and offices, but the sensibility of the eye to contrast has a wide working latitude, and, if exacting work is not being done, the general brightness may vary from one to a hundred degrees without discomfort. Where the work demands close attention, the best possible adjustment of light should be made—one that is equal to good interior daylight lighting must be maintained or created by artificial illumination.

The retina resembles the photographic material in another respect in that it can only render a certain limited range of contrasts, and if the contrast is too great for the eye to be able to bear it, discomfort is produced. In the same way a glare spot, which is an area of excessive brightness, makes the eye very insensitive to other objects, which is very important in dark room lighting. On entering a dark room we "get our eyes" much more quickly when we try to pick out objects than if we merely close the eyes, a common practice. If, instead of stepping immediately from a bright illumination into a darkened room, closet, stairway, motion-picture house, etc., a pause of only a few seconds were made, the eye would adjust itself sufficiently, so that we could proceed without stumbling or bumping into objects.

Contrasts are almost entirely due to two causes; differences in reflecting power and depth of shadow. Shadows will also tend to depress the sensibility of the eye. Excessive contrasts should be avoided, for the reason that the eye has not been sufficiently developed to accommodate itself to them. The contrasts out of doors seldom exceed twenty to one in ratio of brightness.

Where contrasts must exist, as they do in dark rooms, every endeavor should be made to reduce the ratio of contrast to the lowest figure. This can be done by cutting down the necessary bright light to the least amount consistent with efficiency and by having an indirect safelight giving all the light possible consistent with safety.

Contrasts are created by bright lights, and bright lights are brightest when we look directly at them. A bright light deflected to the dark room sink, or bench, would still be as bright as it was before, but it would not appear so, and the eye would not be subject to the constant strain of adapting itself to an alternating brightness and darkness, not to mention the loss of efficiency. All lights should be kept out of the line of vision. Clear-glass electric light bulbs should never be used in the dark room. They create very strong glare spots, and should be replaced by frosted bulbs, if they cannot be replaced by an indirect method of lighting. Quick changes in brightness should be avoided as far as possible. While they may merely produce discomfort, they can also produce temporary, and even permanent, injury to the eye. Glossy finishes to woodwork, walls, etc., are another source of glare, and should be eliminated. As contrasts increase in intensity the eye instinctively demands a higher level of general illumination, which means that the eye seeks a compromise between the extremes of light and dark. The dark room should be neither unduly dark nor should it have any bright spots, safety and efficiency considered.



Trimming Prints to a Circle

AS a rule, when a photograph is seen trimmed to a circle, either the dimensions of that circle have evidently been determined by some ready-made mask, or the trimming is of a very crude character. It is perfectly easy to modify a pair of compasses so that instead of describing a circle they will cut one, with the advantage, of course, that such circle may be made of any dimensions within the limits of the compasses themselves. In striking the circle a little piece of rubber is placed in the center to prevent the compasses from leaving a permanent mark. The cutter is made of a piece of clock spring, which is inserted in the pen part of the compass and firmly bound into position with thin copper wire. The extreme point of the spring on one side is brought to a good edge on a piece of oil-stone, and it must be kept at this by frequent applications. To cut a circle well hardly any pressure on the blade should be necessary; it should be so sharp that a mere gliding stroke suffices. The compasses, after being thus altered, may also be used to cut masks and discs when circular forms of such appliances are required, and may also be found useful in a variety of other ways.

Painting a Plain Background

BY ARTHUR LINDLEY

THE fabric which is to be painted need not be anything very expensive. Double width unbleached calico sheeting will answer every purpose. If the material cannot be obtained wide enough two widths may be stitched together, taking care to have the seam vertical, as it is then much less noticeable. Unless the background is altogether too near the sitter and too sharply focussed a vertical seam will not show at all.

The painting is done while the fabric is stretched on a frame. It will not do to tack it to a wall as some of the distemper will go through, and if it does not actually stick the fabric to the wall, which is very likely, it will deface the latter. The material can be fastened to the frame with tin-tacks; they need not be driven quite home, as they are then more easily withdrawn. The stretching must be done carefully; and, while it should be tight, it must not be pulled very tight between any two of the tacks, or we may be forming "rucks" which it will be difficult to get rid of by stretching in the other direction.

It is first necessary to give the fabric a coat of size. For this purpose the ordinary size of the paint store has added to it its own bulk of boiling water, and the mixture is well brushed in and allowed to dry. The background is then ready to be coated with the distemper.

The writer has found that the ready-made Distemper, which can be obtained in tins from any dealer in builders' materials, is preferable to any home-made distemper. It can be got in a wide range of colors, though none of them are very dark. "Portland cement" is a very suitable one for light gray backgrounds, while the white makes an excellent paint for a background which is to

be vignettted right away. The distemper has only to be stirred up with cold water to be ready for use.

To make distemper at home, the materials required are whiting, lamp black, and size. For a background for a full-length figure a couple of balls of whiting will be required, and should be stirred up with cold water in a pail to make a thick cream. Nothing need be added in the shape of other pigment if it is a white background that is wanted; a little ultramarine will make it look less yellow to the eye, but no whiter to the plate. If a gray is required lamp black may be stirred in until the correct tint is obtained. The tint must not be judged while wet, but a little of the mixture must be brushed on a strip of wood and allowed to get dry; it will then be found to be many shades lighter. The cream is best strained through a piece of linen or muslin into another bucket and is then mixed with its own bulk of the diluted size, such as was used for the sizing.

The distemper is applied, not too lavishly, starting at one corner and working down to the bottom for a width of about two feet, and then beginning at the top again. The best brush is a double one of the kind used for whitewashing. Very little splashing should be caused; if there is any more than an occasional drop it is a sign that too much of the distemper is being taken on the brush at a time.

After applying the distemper it must be left to get thoroughly dry, which will require a day or two at the very least. It is easily injured while it is only surface dry, so that if it can be left for three or four days so much the better. One edge may then be tacked on a round pole, the tacks withdrawn from the framework and the background rolled up.

The Restoration of Faded Prints

BY G. WILBERFORCE STURTON

TURNING over the leaves of a photographic album, one cannot but be struck by the number of old photographs which have faded in the course of time. Such examples are mostly silver prints either on albumenized or on gelatino-chloride paper: bromide prints appear to be much more lasting, while platinotypes do not fade, although the paper may discolor. One of the jobs which the photographer is

sometimes asked to undertake is to restore some such faded print.

It is evident from the fact that it has to be restored that the picture is a valued and irreplaceable one, since if the negative is in existence it is far better to apply to whoever owns it and get a fresh print made. This would not only be superior to anything we could hope to make of the old faded one, but it might also be made by a permanent proc-

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KODELON

(Paramidophenol-Hydrochloride)

An economical and highly successful developing agent, used in connection with Hydrochinon, for all developing-out papers.

It bears the Eastman Tested Chemical Seal.

THE PRICE

1 oz. bottle,		\$.85
¼ lb. “		3.15
½ lb. “		6.15
1 lb. “		12.00
5 lb. cans,		59.50

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

All Dealers'

ess. The assumption, then, being that the picture cannot be replaced, it is most important not to submit it to any operation likely to endanger it, without first photographing it, so that at the worst we should have a copy of it.

If this photography is done on an ordinary, not on an orthochromatic, plate, it will often happen that the result will show so much improvement over the original that it is not worth attempting to restore the latter. The fading takes the form of a change of the darker tones of the picture from deep purple to yellow or yellow-brown, and although the yellow looks much lighter to the eye it is very little lighter to the non-orthochromatic plate. Along with the fading, one sometimes notes the formation of a number of white spots on the print; and as, whatever restoration may accomplish, it will not get rid of these, the new negative, if otherwise satisfactory, should have the spots carefully filled in, and then a print can be made from it, to take the place of the old one. Three times out of four this will be all that need be done; but in the fourth case restoration must be put in hand.

The first stage is, in the case of a mounted print, to take it off its card. It should be soaked in cold water for a couple of hours before doing anything else to it. This usually splits up the card, which may be pulled off in layers, and, after a little coaxing, can be removed completely. The operation should take the form of removing the card from the picture, not of peeling the picture from the card, as this is likely to result in a tear.

When the mount has been got rid of, the print should be placed in a five per cent solution of alum for half an hour. This should be done, whether it was mounted or not. It may then be given a thorough washing by hand, say a dozen changes of water spread over half an hour, and will be

ready for the restoration process, with a minimum of risk of damage.

The solution employed for this purpose is a slightly acidified one of mercuric chloride. Ten grains of mercuric chloride may be dissolved in a mixture of ten drops of hydrochloric acid and four ounces of water. The exact strength is not very important, but the solution should be fairly weak.

Immersed in this, the picture will generally go a good deal lighter, but it does not usually disappear entirely, and the extent to which it alters varies very much with different prints. The action need not be hurried, and a quarter of an hour in the mercury is none too long. After the lapse of that time the print may be once more well washed; the success of the operation depends very much upon the way in which the washing is carried out.

After washing, the print is placed in a developer of the following type, in which, if all has gone well, the image will soon appear to be much stronger than before:

Metal	1 grain
Water	1 ounce
Sodium sulphite	12 grains
Potassium carbonate ...	12 grains

There is nothing very special about this formula; it is only given as typical of the developer which may be used. It will be noted that it is weak, and contains no bromide. Ten minutes in such a solution will be ample, and it only remains to wash the print thoroughly once more, and then to dry it.

This method of restoration will be found in most cases to be effective, but it does not follow that it will always answer. The causes of fading are not always the same; the chemical changes in one case may be quite different from those in another, and the exact nature of such changes in any particular case cannot be certainly known.

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This is a pretty strong guarantee for a flashlight outfit, and there is just one that has it

CAMPBELL'S "MULTIPLE-FUSE"
Portable Skylight

Ask your dealer or write us for folder 17A.

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The Book You Can't Afford to Be Without
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917 SCHOFIELD BLDG. CLEVELAND, O.

TAKE IT DOWN!

That old stuff from your walls and show cases. Christmas is coming in a few weeks. How to arrange a snappy business getting display get some pointers from our booklet number four.



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"The Photo Art Shop"
CHICAGO

ALL THE SPEED YOU CAN USE
ALL THE GRADATION YOU COULD
WISH FOR

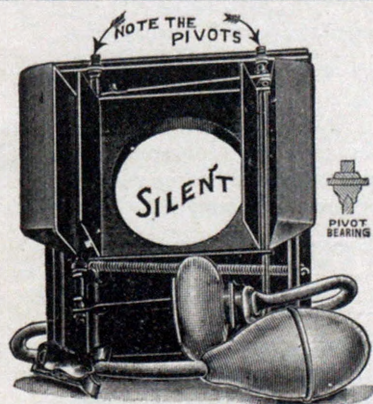
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For dependable definition
the ultimate choice

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The Professional Photographer appreciates the advantage of a Silent Shutter. When that desirable feature is combined with a simple and scientific construction, one doing away with all cogs, ratchets, valves, scraping wings, and the like, one then has the only Silent Studio Shutter. It "opens without a sound." They are patented and made only by us. Be sure your order reads S-I-L-E-N-T, and accept no other. Its best recommendation—thousands of satisfied users. Made with both plain and pivot bearings.

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DIANOL

A SIMPLE DEVELOPER FOR
PLATES, FILMS and PAPERS

The solution is made up by dissolving in water with Sulphite of Soda.

DIANOL works without alkali, acts quickly, and gives brilliant, even and detailed negatives.

DIANOL is the best, most harmless, stainless and inexpensive developer for Developing Papers.

PRICE:

1 oz., \$1.00 4 oz., \$3.50
1 pound, \$12.00

R. J. FITZSIMONS

75 Fifth Avenue

New York City

The Value of Good Bookkeeping

A DIRECTION in which much waste in a studio can occur is in that of bookkeeping. Big firms have gone down through keeping their books too well. That is to say, they have had too elaborate a system, and spent too much of their profits in simply recording those profits and the way they were made. In such a case true economy would involve the saving of time in bookkeeping and of money on unnecessary bookkeepers, but a usual fault of the smaller type of "business" man is not giving enough time to bookkeeping, while still more often, though he keeps his books quite well, he does not understand them and cannot interpret them. This is the type of man who, having done well for years and drawn a nice income from his business, finds he can only retire as a bankrupt. It is difficult for the owner of a solvent business to realize that all the time he is really a bankrupt, but, nevertheless, it is so very often. Without knowing it he has spent all his capital, and his business, though bringing him in a good income, is quite unsalable. He has nothing to sell, and, unless he has put by a private "nest egg," nothing to retire upon. The real source of all his trouble is that he has taken too much out of his business in the form of income. Let us take a simple instance showing how such a state of things can begin. For the purpose of pleasing clients it is very desirable that a photographer should keep his studio and waiting-room well furnished, and, if the furniture is of the modern variety, it is equally desirable to renew it frequently. Suppose a photographer on being advised to refurbish his studio says, "I spent \$200 on doing that five years ago and cannot afford to do it again now." But if he bought a \$200 business asset five years ago that asset ought to exist still, and be exchangeable for another similar asset. What is wrong? The answer is that he has thrown away

something like \$150 on nothing at all. He bought \$200 worth of furniture, which speedily became second-hand and only worth about \$100. The other hundred he should have saved out of profits, put into the business, and have written down the value of the furniture to \$100. The value of the furniture since then has depreciated further, at a slower rate, until in five years' time its second-hand value is probably not over \$50. But by this time he should have saved (in respect to this item) another \$50 and kept it in the business. In other words, he should have written down the value of that furniture year by year, so that it now appeared

THE RESULTS WERE TOO GOOD!

It isn't often that an advertiser complains because the results from his advertisement were too good, but just read the following:

N. W. KEANE

Newspaper and Magazine Advertising.

95 Nassau St., New York.

Dear sir:— Dec. 20, 1916

If advt. of Newark Photo Studio For Rent (1123 Broadway New York) is still running, please discontinue. Advt. ordered for Dec. 2nd only.

Inquiries from advt. still being received. Gallery has been rented.

Yours respy.,

N. W. Keane (signed)

The advertisement was for one insertion only—consequently it only appeared once. Three weeks later replies are still coming in. Enough said.

**FOR RESULTS TRY
ABEL'S CLASSIFIED.**

Bargain List No. 20

You will exclaim at the low prices quoted in our latest list. Everything in cameras and lenses at lowest prices. We buy, sell and exchange the highest grade of foreign and domestic cameras, lenses and equipment. Headquarters for Cyko and all other photographic papers, plates, etc.

Write for a free copy today

New York Camera Exchange

109 Fulton St., New York

**SELL LARGE PORTRAITS
AND MAKE MORE
MONEY**

H. D. BRIDLE

THE PHOTO-ENLARGER

1034 Arch Street

Philadelphia, Pa.

Over 20 years at the same address

CLARK & FREED

Quality Enlargements

Write for Booklet.

4 East 8th St.

NEW YORK CITY

EASTMAN PORTRAIT FILM

Extract from a practical article by the widely known English photographer, H. Essenhig Corke, in the *British Journal of Photography*.

"To sum up, we make the following list of pros and cons:

"ADVANTAGES—Greater saving of carriage to and from studio, and impossibility of breakages. Extreme lightness in use for large sizes and for storage. Possibility of working upon both sides and printing from each side. Freedom from halation and, last, but not least by any means, the peculiar and wonderful "quality."

"DISADVANTAGES—Possibility of easily scratching the back of the film by careless handling. The slight possibility of fire or burning the film. The need in most cases of some alteration in the orthodox methods of working. Difficulty of extra rapid drying.

"I can speak, of course, only from my own experience, but I certainly think that the advantages far outnumber the small disadvantages, and that the last advantage that I have named—that of the quality alone—is enough at least to warrant a thorough trial of these films, for there is no doubt a "something" wonderful and indescribable that one gets in the negative which I, at any rate, have never been able to get in any plate made by the Kodak Company or any other maker.

"Like many others, I speak as I find, and, of course, I have no brief for the makers of these films, and I also admit that it was a long time before I screwed up courage to make the changes that they require. But I would advise any who have not tried these films, in fairness to themselves, at least to give them a trial, and then decide if the results merit the changes that will be necessary."

Your dealer sells them.

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

in his balance-sheet at its true value of \$50, while the balance of its cost, \$150, appeared as a real asset in the form of cash of something equally realizable. What he has done is to forget the matter of depreciation altogether, and to spend the money that he should have saved to cover it. If he goes on like this with other things as well as furniture, some time or other he must reach the stage when he has nothing salable of any appreciable value. True economy evidently lies in buying good things that do not depreciate too rapidly, and in refraining from taking out of the business a single dollar really needed to cover depreciation; though more than this must be left in to insure prosperity.

A Home Portraiture Announcement

FROM the studio of Mrs. Ethel Standiford, of Louisville, Ky., comes the following neatly worded announcement of the opening of their new home portraiture department. It was engraved on an envelope

size folder, the second page being plate-marked. At the same time it suggests the advisability of having photographs made for Christmas gifts:

"Standiford announces the inauguration of a department for Home Portraiture exclusively. 'Art portraits taken midst the intimate surroundings of your Home, at Studio Rates.

"Memory's Dearest Treasure—A Portrait."

"The Season of Gift Giving is come again. May we suggest the one remembrance which bears the charm of the spirit of friendship—Your Photograph."

A Burke & James Announcement

BURKE & JAMES, of Chicago, have just taken over the exclusive wholesale selling agency for the products of the Universal Camera Company of that city, including cameras, tripods, dissolver, etc.

Before concluding arrangements for this agency a most searching investigation into

DEALERS WHO WANT YOUR TRADE

ATLANTA, GA.—Glenn Photo Stock Co., Eastman Kodak Co., 117 Peachtree St.

BOSTON, MASS.—Robey-French Co., Eastman Kodak Co., 38 Bromfield St.

BOSTON, MASS.—Ralph Harris & Co., 22-26 Bromfield Street. New York City Office, 176 Fulton Street.

CEDAR RAPIDS, IA.—Camera Shop, 306 Second Ave., East.

CLEVELAND, OHIO.—Fowler & Slater, 806 Huron Road, S. E.

CHICAGO, ILL.—Sweet, Wallach & Co., Eastman Kodak Co., 133 North Wabash Avenue.

DALLAS, TEXAS—C. Weichsel Co.

DENVER, COLO.—Denver Photo Materials Co., Eastman Kodak Co., 626 16th Street.

DENVER, COLO.—The Ossen Photo Supply Co., 415 16th Street.

DES MOINES, IA.—Des Moines Photo Material Co., Eastman Kodak Co., 517 Locust Street.

DES MOINES, IA.—W. P. Henry, 819 Walnut Street.

GALESBURG, ILL.—Osgood Photo Supply Co.

INDIANAPOLIS, IND.—The H. Lieber Company, 24 W. Washington Street.

INDIANAPOLIS, IND.—Lyman Brothers, 223-225 East Ohio St.

JACKSONVILLE, FLA.—H. & W. B. Drew Company.

KANSAS CITY, MO.—Kansas City Photographic Supply Co., 1010 Grand Avenue.

LOS ANGELES, CAL.—Howland & Dewey Co., Eastman Kodak Co., 510 South Broadway.

MILWAUKEE, WIS.—Milwaukee Photo Materials Co., Eastman Kodak Co., 427 Milwaukee Street.

MILWAUKEE, WIS.—Henry Reimers, 238-240 West Third Street.

MINNEAPOLIS, MINN.—O. H. Peck Company, Eastman Kodak Co., 112-114-116 So. 5th Street.

NEW ORLEANS, LA.—Standard Photo Supply Co., Ltd., Eastman Kodak Co., 125 Baronne Street.

NEW YORK CITY—Herbert & Huesgen Co., 311 Madison Avenue.

NEW YORK CITY.—George Murphy, Inc., 57 East 9th Street.

NEW YORK CITY.—New York Camera Exchange, 109 Fulton Street.

NEW YORK CITY—Willoughby, Inc., 110 W. 32nd Street.

OMAHA, NEB.—The Robert Dempster Co., Eastman Kodak Co.

PHILADELPHIA, PA.—John Haworth Co., Eastman Kodak Co., 1020 Chestnut Street.

PITTSBURGH, PA.—W. S. Bell & Co., 412 Wood St.

ST. LOUIS MO.—Hyatt's Supply Co., 417 N. Broadway.

ST. LOUIS, MO.—W. Schiller & Co., 6 South Broadway.

ST. PAUL, MINN.—Zimmerman Bros., Eastman Kodak Co., 380 Minnesota St.

SALT LAKE CITY, UTAH.—Utah Photo Materials Co., 423 Main Street.

TOLEDO, OHIO.—George L. Kohne, 602 Summit Street.

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\$2.00 per Copy, Postpaid

YOUR DEALER HAS IT OR WILL GET IT FOR YOU.
IF NOT, WRITE

Abel's Publications
917 Schofield Bldg., Cleveland, O.

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46 pages, profusely illustrated, bound in cloth. The substance of Mr. Towles' lecture at many conventions. Pronounced one of the important books of the year.

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ABEL'S PUBLICATIONS

917 SCHOFIELD BLDG.,

CLEVELAND, OHIO

the merits of this camera has been made and many users written to asking them to give a confidential expression of their opinion and experience with this camera. Among the users of this camera are many of the most prominent motion picture men in the world and also many large institutions such as the Selig-Tribune Weekly and the Herald Weekly. The camera is also being extensively used in Europe. The replies received from the confidential inquiries regarding this camera claim absolute satisfaction.

One of the great advantages of this camera is that it is so quickly set up and operated, that the man equipped with it "gets the picture and gets away before the other fellow gets set up."

Messrs. Burke & James have an excellent proposition for photo supply and motion picture supply dealers.

CLASSIFIED ADVERTISING RATES

SITUATION WANTED: Under 30 words, two insertions, free; further insertions, 30c each; over 30 words, first two insertions, 30c each; further insertions, 50c.

HELP WANTED: 50c per insertion.

FOR RENT and MISCELLANEOUS: Under 30 words, 50c per insertion; over 30 words, \$1.00 per insertion.

STUDIOS FOR SALE: Under 50 words, \$1.00 per insertion; over 50 words, 2c per word.

SITUATION WANTED

In first class studio as printer. Thoroughly experienced; can assist in all lines. Can join at once. State what you have to offer in first letter. J-1, care of this journal. 30-12-2

First class all around photographer, printing and operating a specialty. Wishes situation January 1. Moderate salary or run studio. O. H. Mortenson, 476 State St., Brooklyn, N. Y. 9-12-4

Permanent position as all-round assistant in a photo studio, by a young widow, with three years' experience. Willing to go to any town or city, United States or Canada. Will begin work immediately. Mrs. J. I. Snazel, Albion Hotel, Rooms 17-22, Stratford, Ont., Can. 16-12-3

By good steady man; not afraid of work; sober; non-smoker; two years experience in commercial work and some experience in portrait work; would like to get into studio work; State of Ohio preferred. Walter K. Gorham, 7427 Star Ave., Cleveland, Ohio. 23-12-2

By photographer with years of experience in various branches. Prefer running branch studio or act as home portrait operator for first class studio. Can meet best society; sober; reliable. Ready January 1st. B-3, care of this journal. 23-12-2

HELP WANTED

First class ticket man, very soon, references required. Reply to V-1, care of this journal. 16-12-4

A first class all-around photographer—capable of taking charge of a large ground floor studio—can connect with a live concern on a year's contract. Salary is no object—what we want is a man who can 23-12-2

PRINTER — Wanted an experienced printer, with knowledge of operating preferred, for steady all year round position. Address, with reference and salary, The Miller Studio, Minneapolis, Minn. 23-12-2

SPECIAL

That desire for a little daylight when the clouds obscure the window or skylight will be fulfilled if you have a lamp burning Columbia White Flame Carbon at hand. National Carbon Company, Cleveland, O. 30-12-1

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