

Leiss

MAGAZINE

SEPTEMBER, 1938



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CENTS
VOL. 4,
No. 9



Workers

JOE WIENER

FIRST PRIZE

Zeiss Ikon Monthly Competition

THE FIRST prize award this month goes to Joe Wiener for his picture, *Workers*, enlarged from a negative exposed for 1/100th second at F:3.5 with the G-4 Filter in his

SUPER IKONTA B fitted with the TESSAR F:2.8 8 cm Lens. The film used was Agfa Superpan. Mr. Wiener's work is an excellent example of the rapid advances an amateur photographer can make if he applies himself systematically to his hobby. Becoming interested in photography a short while ago as a relaxation from his business, Mr. Wiener shortly made up his mind that he wanted to make good pictures. At the start he confined himself to the ordinary scenes which abound in every city and town, leaving the more difficult subjects for later, with the result that he has not only enjoyed himself immensely but has developed great skill and proficiency in his avocation. *Workers* is a typical Wiener picture. There is nothing extremely difficult about it, and the subject is certainly not unusual . . . yet, because of the fine technique and correct values in both the negative and print, the picture is a real prize winner. Placing the dark heads of the horses against the most brilliant part of the cloud is one of the easiest and best ways of accentuating the center of interest. When this is done, the eye is immediately attracted to the spot where such tonal contrasts meet. The low viewpoint is usually fascinating in pictures (*Please turn to page 215*)



SECOND PRIZE

The Hat

FREDERICK H.
HURD



Painter T. L. ALEXANDER
THIRD PRIZE

THIS MONTH

... as will be seen from the announcement of reservations in the Notes and News on page 213, the showing of prints from the ZEISS IKON Loan Exhibitions by camera clubs, ZEISS Dealers, museums, colleges, and other organizations commences. If you are interested in showing any of these exhibitions in your community, write us, giving your needs and exhibition facilities. Early reservation is suggested; the demand is so great that they will soon be booked for some time ahead. Full information concerning these exhibitions was given on page 173 of the August issue. Sorry: it is entirely out of print, so we cannot supply you with a copy if you have mislaid yours.

... vacations are over and summer is gone. Ahead of us lie some of the best picture days of the year. The possibilities for color will be better than ever, and the new higher-speed, finer-grain black-and-white film permits the use of the camera under almost any conditions without loss of either grain or gradation.

... and every month ZEISS MAGAZINE will present interesting and informative articles with special reference to the use of your camera in making pictures. It is your magazine. Its past improvements resulted from your suggestions and advice. The same will be true of future improvements. So let us know of your wishes and interests. Your suggestions will be acknowledged and given full consideration. And, within our own limitations, they will be used.

ZEISS MAGAZINE

Devoted to Zeiss Ikon Photography

VOLUME IV

NUMBER NINE

SEPTEMBER, 1938

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Edited by Fenwick G. Small

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Sbrine of St. Francis

LEO NEJELSKI

SUPER IKONTA B with TESSAR F:2.8 8 cm Lens; exposure according to meter; Panatomic Film developed in D-76 for 16 minutes at 65° F.



On Parade

LEO NEJELSKI

SUPER IKONTA B with TESSAR F:2.8 8 cm Lens; exposure according to meter; Panatomic Film developed in D-76 for 16 minutes at 65° F.

Expose One Hundred Rolls

LEO NEJELSKI

BY SHEER coincidence I had an opportunity to talk one day recently with two men about their achievement in two art forms. One was a very talented young man who is studying painting. The other young man is equally talented, except that words are his usual method of expression. He is a writer.

I chatted at considerable length with the first man. His eyes were lighted with enthusiasm. He had received word earlier that day that his painting had been selected by the jury for a place in a recognized national exhibition. And this was his first real success after study-

ing and practically "living" painting for eight years!

The second young man was bitterly disappointed when I chanced to meet him. He had just received the prints made from the first film exposed in his new and expensive camera. They were not failures. Neither were they masterpieces. They were actually very good first prints. I asked why he was disappointed and he remarked that with a good camera he had expected to do much better.

The contrast between these two people is obvious. The difficulty is that photography has been made too



Ol' Man River

LEO NEJELSKI

SUPER IKONTA B with TESSAR F:2.8 8 cm Lens; exposure according to meter; Panatomic Film developed in D-76 for 16 minutes at 65° F.

easy for many people. The painter is jubilant if his canvas gets into an exhibition after eight years of study. Yet the writer who has spent months writing and re-writing short stories, by some unknown magic expects to produce masterpieces the first time he holds a camera in his hands.

The disappointment of the writer, and the disappointment of many serious camera buyers, arises from a lack of patience and willingness to master the sensitive and miraculously accurate instrument for which they have paid out a considerable sum of money. They fail to realize that although photography is one of the most mechanized of the arts, it still offers a wide choice of cameras, filters, films, developers, papers and toners, and unless these become so well known to the user of them that he can employ them to express the thoughts and emotions within him, he is merely depending upon chance and must be satisfied with the small percentage of success that comes by chance.

I was discussing this subject with Valentino Sarra a short time ago and he was reminded of a staircase he photographed over three hundred and fifty times before his instructor was satisfied that the staircase looked like one and that the sunshine streaming through the window above was really sunshine. Sarra persisted to the extent of over three hundred and fifty negatives. And when he was through he had mastered the problem of picturing one subject in tones ranging from deep shadows to dazzling sunlight.

Along with that perfect negative of a staircase in

sunlight and deep shadow Sarra achieved accuracy in knowledge about the camera, the films and plates, the developers and papers he was using. He put into unforgettable form the "feel" for his medium of expression that he could never have accomplished in a century of reading and hoping.

Striving for perfection is the important thing. If disappointment leads to a more intense desire to do it better, then there is definite hope for greater success. Futile disappointment and vain hopefulness lead to discouragement and to mediocre results.

After his early discouragement, the young writer referred to earlier in this article began using a wide variety of films. Subconsciously he was striving to find some mechanical means of overcoming his lack of knowledge. Then he began buying various accessories. But his results have remained equally average. And unless I am mistaken, he has arrived now at the stage where the beautifully made and coordinated camera will go into semi-retirement or will be offered for sale at a reduced price.

The solution to this young man's problem is simple if he is willing to be only a fraction as persistent as the painter. Yes, and he must be patient, too.

First of all, he must learn his camera thoroughly. Knowing how to load it with film, how to set the speed and aperture and where to press the button is not enough. He must learn when higher shutter speeds and wider iris apertures will produce more effective negatives even though the subject is as still as stone. He must know when to iris down. And when he learns that the greater the aperture, the narrower the field in focus and deliberately fuzzes out backgrounds to heighten the interest in the subject nearer the camera, he has learned the first important lesson in the use of his camera as an instrument.

Then he will iris down to increase the field in focus and learn to choose his compositions so that the eye follows back, back, back into the picture. He will take a chance on catching the movement of subjects in the picture and will strive for needle-sharp negatives from the foreground to the very depths of the picture.

Probably the next thing that will happen will occur as a result of accidents in occasional negatives. The subject, or parts of it, will be blurred by movement. Gradually he will learn that one-fiftieth will not stop a running child and that it is better to overcompensate for movement than to take a chance on spoiling a negative. Moreover, at a shutter speed of one-hundredth even the novice takes little or no risk of moving the camera while squeezing the shutter release.

Many of the old instruction books advised camera owners to take pictures only in the sunlight and with the sunshine coming over the camera user's shoulder.

These directions were necessary in the days when film had little latitude. Today, however, even the fastest films render shadow detail excellently and many pictures made of subjects partly in the sun or of the subject with the sun, or light source, at its back, turn out to be the most vital and dramatic choice of viewpoint.

A rudimentary knowledge of filters is important if for no other purpose than to correct or over-correct sky tones. Bright, clear blue sky becomes gray, grayer and gray-black if yellow, orange or red filters are used over the lens. Start with a medium yellow. Later try a medium orange, or medium red, for exaggerated effects.

Most camera users are frightened and confused by the mass of literature and articles on filters and rather than buy one and learn it thoroughly, they prefer to do without it. This is a mistake. Filters provide one of the easiest means of obtaining striking outdoor pictures. And later, as results create greater curiosity, the filter user will acquire an additional one, or two, and read or inquire into all information, theory and data at hand to make more certain his understanding of them.

Another characteristic of new camera users is the universal desire to find a make of film that will produce magical results. There is no such film. The feverish scurrying about first with one film, then with another, then still another, serves only to confuse.

However, experimenting with one film until its characteristics of speed, graininess and contrast become known, then putting another type, or brand, of film through the same paces is more apt to produce definite knowledge. Before beginning, however, the user will find it very helpful to decide whether he wants fine grain, or speed. In spite of the progress made in films, speed and fine grain have not been truly mated.

After finding a film that suits normal purposes, or fancies, sticking to it for a period of months, or even years, will increase one's knowledge of that film and make possible increasingly encouraging negatives and prints. In addition, if one film is known completely, the user comes nearer knowing the causes of his success, or failure, and moves one step nearer the mastery of photography as a medium of expression.

And now we arrive at the most vital and important part of this discussion of rudiments. An instructor in painting was asked about the best method of learning to paint. He replied, "By learning the rudiments, then painting a hundred canvasses." Likewise, the camera user seldom acquires the basic knowledge, or "feel," of his camera until after he has exposed a great number of rolls of film. As he approaches, and passes, the hundred mark, his aimless gropings slowly transform into greater certainty, and finally into definite knowledge.

The painter's instructions apply to photography as well. And certainly one hundred rolls of film is not too

high a price to pay for more definite knowledge of a medium that holds so much in store in enjoyment, in stimulation and in adding to the richness of life.

In the process of exposing the hundred rolls, accurate notes of weather, film used, shutter speed, iris opening and all other pertinent information will hasten the learning process. The human memory is tricky and deceiving. It seems to fail us most readily just when we need its help.

Just as it is important to know one film thoroughly, it is equally important to know one developer thoroughly. Switching about from developer to developer leads to confusion.

Printing out papers and paper developers also repay concentration and thorough study. Many good negatives are nullified when the printing, or enlarging, stage is reached. Making the negative is only half the process.

If there is a camera club available, join it. Criticism is invaluable. Discussion of mutual problems is likewise clarifying and stimulating.

And a warning in closing. What a man gets onto a negative, and later on paper, has substance and appeal only to the extent of the width and depth of the man's mind and soul making the picture. He cannot express what is not within him. Con- (Please turn to page 215)

SUPER IKONTA B with TESSAR F:2.8 8 cm Lens; exposure according to meter; Panatomic Film developed in D-76 for 16 minutes at 65° F.
Nancy
LEO NEJELSKI





Positive Polarization Control

VINCENT MCGARRETT

THE BERNOTAR Polarizing Filter, introduced some time ago, has become familiar by now to most camera users. Since its introduction, many practical applications of the BERNOTAR in all fields of photography have been found. Its use with the CONTAX is now greatly facilitated with the new BERNOTAR ORIENTER which fits over the outside bayonet mount of the CONTAX and is instantly removed or attached the same as the CONTAX Lenses. The ORIENTER removes the last complications from polarized light photography, and with it the CONTAX user enjoys in this fascinating field the versatility and dependability for which the CONTAX is famous.

The BERNOTAR ORIENTER, illustrated in Figures One and Two, consists of a bayonet collar (1), which fits over the outside bayonet mount of the CONTAX,



with the usual locking catch (2), holding it in a vertical position on the camera. In this position, the user can view the subject *through* the viewing polarizer (3) while rotating it with the knob (6), easily reached by the finger without removing the hand from the normal holding position. The BERNOTAR Filter (42 mm size)

slips over the rotating rim (4) with the orientation marks on the BERNOTAR coinciding with the slits (5) in this rim. Since the viewing polarizer (3) and the rim (4) are synchronously controlled by the knob (6) and the planes of polarization of the viewing filter and the BERNOTAR are identical when the orientation marks on the BERNOTAR coincide with the slits (5) in the rotating rim (4), the effect seen through the viewing filter will be identical with that caused by the BERNOTAR slipped on the rotating rim (4) in front of the lens.

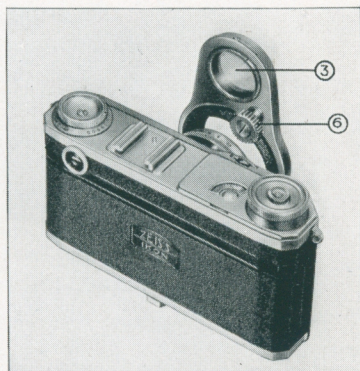
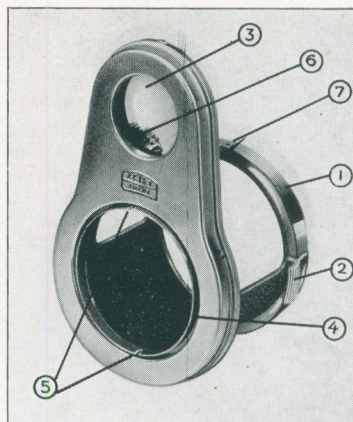
While the description may seem complicated, the application of the ORIENTER to the CONTAX causes no more difficulty than attaching a lens, and with the ORIENTER in place the exact effect of the BERNOTAR is speedily controlled by turning the knob (6) while looking through the viewing polarizer (3). This accessory eliminates the need to adjust the BERNOTAR to the correct angle of rotation for the effect desired in the hand with the attendant risk of changing the precise adjustment of the BERNOTAR or disturbing the lens focus while placing it on the camera lens. No longer is it necessary to focus the CONTAX before placing the BERNOTAR in position or to reset the BERNOTAR each time the camera is refocused. The ORIENTER may remain on the CONTAX during a series of shots: if no polarizing effect is desired, remove the BERNOTAR from its position in front of the lens and fit the regular lens shade, or lens shade and filter, in its place. With the ORIENTER in position at all times it is easy to see whether the scene would be improved by the use of the BERNOTAR by looking through the viewing polarizer and turning the control knob. If improvement is indicated, the BERNOTAR can be fitted in place in an instant. Finally, the ORIENTER may be used on the CONTAX with the CONTAMETER.

When and why use a BERNOTAR Polarizing Filter? Perhaps a brief review of the writer's previous article* on this subject will be of help.

Unpolarized light, ordinary light to us, is composed of waves vibrating in all planes. However, when unpolarized light is reflected from a non-metallic surface, or a metal coated with a non-metal surface such as paint, between the angles of 32° to 37° , the reflected light vibrates in one plane only: i.e., it is polarized.

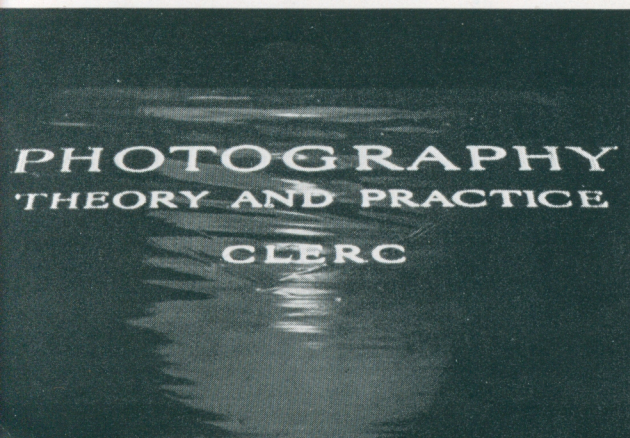
*Cf. McGarrett, Vincent: What about Polarized Light; ZEISS MAGAZINE, Vol. III (1937), pp. 117 (June) & 138 (July).

Information concerning Mr. McGarrett's pictures will be found at the end of his article.



Figures 1 & 2
Front & Rear Views
of the
BERNOTAR ORIENTER

With this polarized light the BERNOTAR can be used as a grid. When its plane of polarization is parallel to the plane of polarization of the polarized light, all the light goes through the BERNOTAR. As the plane of polarization of the BERNOTAR is turned so that it is at an angle to the plane of polarization of the light, some of the polarized light is absorbed. This absorption becomes greater as the angle between the two planes becomes larger, until, when the angle between the planes is 90° , all the polarized light is absorbed. At the same time, most of the unpolarized light will pass through the BERNOTAR since only that part of it which is vibrating in a plane at 90° to the plane of polarization of the BERNOTAR will be completely absorbed. In actual practice the exposure factor allowing for the absorption of part of the unpolarized light will range from two to five times with the factor for most panchromatic materials at 2.5. (Please turn to page 212)



Good Pictures . . . "On Purpose" . . . not by accident

CHARLES SANFORD KNAPP

(Continued from the August Issue)

BE UNTIRING in *seeing*. See your picture by different lightings, from different angles, against different backgrounds, and, if accessories are needed, with different accessories. Your eye and creative mind must be to you as the artist's sketch pad . . . the proving grounds for the final picture. You may risk your neck and tear your pants climbing about, arouse suspicions by your prowling, bring a crowd of small boys to gawp at your peering, and lie awake a night or two worrying about it, but when you finally *see* your picture, the rest is almost mechanical. You'll make the exposure, develop the negative, and make the print, the print of a truly good picture that satisfies you fully. Hang it up in your living room. Others will recognize its goodness. But whether they do or not, it is a good picture because it fully expresses your idea. More than that, no picture maker can do.

This ability to *see* pictures, this sense of picture values, has much more to do with making good pictures than subject matter. Probably no more good pictures come out of picturesque spots than from your own city. The picture maker, not the subject, makes the picture. Subject matter for more good pictures than you could make in a long lifetime are all about you, no matter where you live. The truly great pictures are most often made of familiar subjects which the picture-maker best understands, with which he is on more intimate terms, to which he is naturally more responsive. Also, the great opportunities in picture making are in making new interpretations to others of familiar subjects, giving others a new attitude toward the familiar and even drab surroundings of their lives. There is a positive danger in the excitingly unfamiliar subject, a danger that its excitement may overpower us so that we cannot understand

Mud

JOHN M. GASKILL

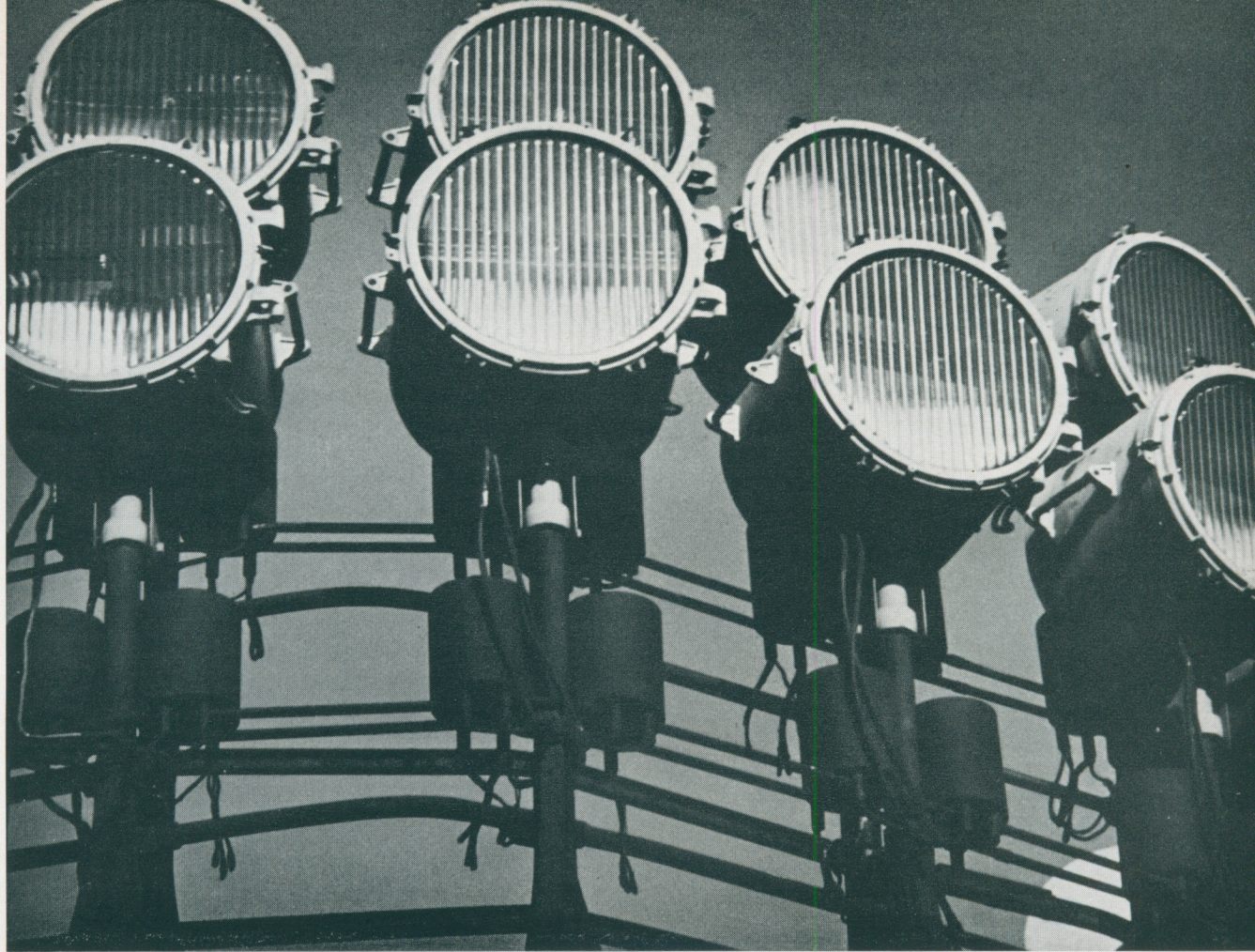
From *The ZEISS IKON Loan Exhibitions SUPER IKONTA A*; exposure 1/50 at F:11

it; hence, we cannot really see it and therefore, cannot picture it. No better field exists for generously satisfying pictures than your own home; its occupations, occupants and environment. For instance, here are just a few of the good picture possibilities in the average home. Don't make any of these pictures unless you really *see* them and *want* to make them.

The fascination of the sunnies, a picture you've often seen but probably not with your picture mind. Choose the angle, lighting, pose, and expression of the child absorbed in the comics which expresses your amusement or whatever you feel about this familiar scene. There's a good picture here.

That she who mops may read, is a familiar picture that no one has probably seen clearly enough to make. The busy housewife, chin on mop handle, has her attention drawn from mopping up the kitchen floor by a four-column screamer, "Downtown Love Nest Raided," in one of the newspapers she has spread on the floor. What angle, what lighting effect, what exposure will best portray the humorous aspects of this very common sign?





Landing Lights

CONTAX with SONNAR F:1.5 50 mm
From The ZEISS IKON Loan Exhibitions

LEROY ROSELIEVE

Birds of a feather is a good picture worth seeing and making. A small child with a half-eaten banana in one hand is holding up a miller head to a canary. How you frame it, light it, compose it will portray your idea on this subject.

Bedtime in the radio age is your interpretation of the significance of children in Dr. Benton suits receiving their bedtime story out of a loudspeaker instead of from grandmother's lips.

Sitting up with the prints is an opportunity to show others how you feel around one o'clock in the morning, waiting for the prints to drop off the tins or to dry sufficiently to go into the press.

First of the month is your opportunity to turn a desperate situation into a grand picture. Arrange your coatless young husband, checkbook, drift of bills, single lamp into a picture that will elicit a sympathetic smile or something from everyone over thirty years of age.

Housewife's nightmare. All you need for this picture is an enormous pile of soiled dishes, made more enormous by the right camera angle and lighting, bent back of a housewife and a dishpan full of suds. The rest is up to you.

To be or not to be a rag. Can you see this picture of a scene you must have often witnessed, your wife pushing her fist through an enormous hole in Junior's stocking, tongue in cheek, trying to decide between hours of mending that

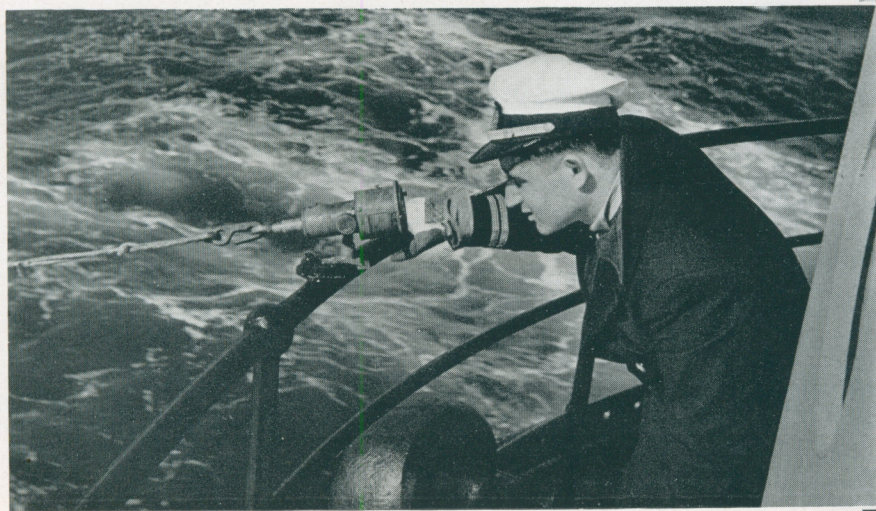
gaping void or consigning the whole thing to the rag bag?

Young executive in his leisure moments is your impression of the rising young business man, called "Mister" in the office, called by his wife to step on it with that basketful of wet clothes.

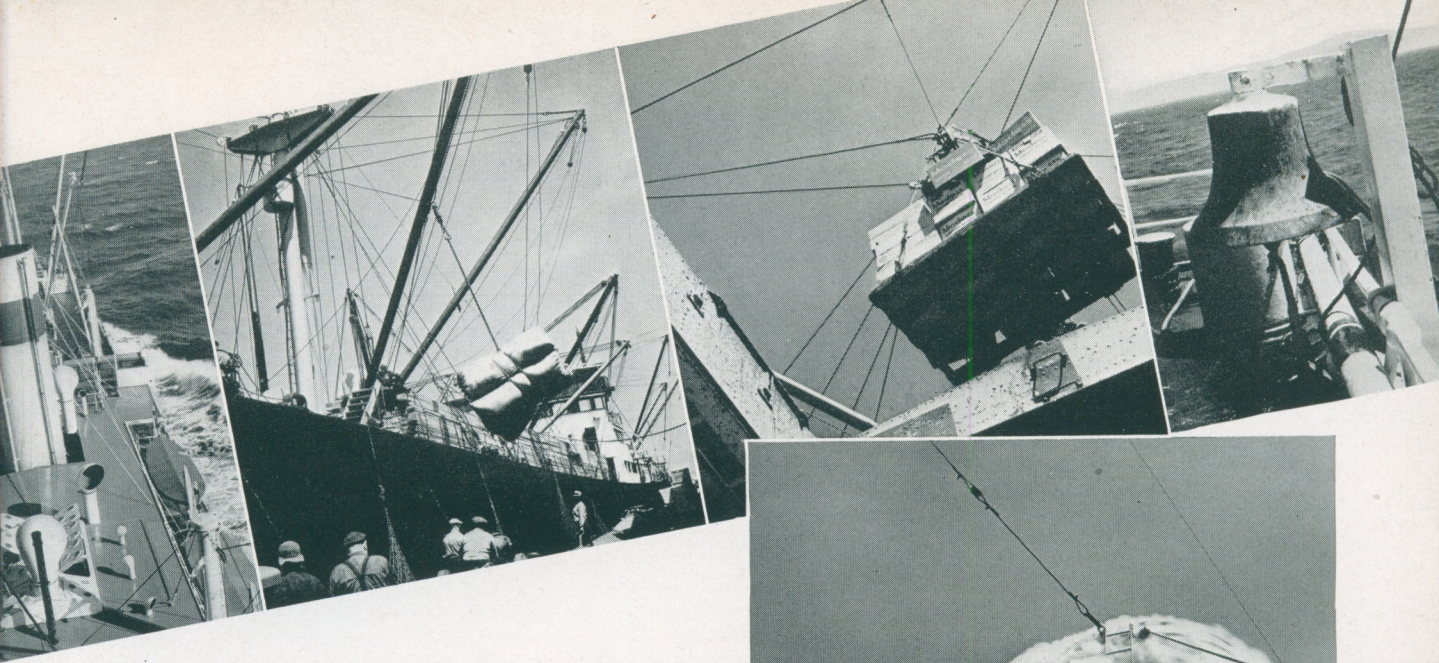
Scene of the crime is what you would do photographically about a broken cellar window, broken by your young son in a ball game. Maximum accessories: catcher's mitt and a bat.

Batchelor's Hall is a picture of what happened in the breakfast nook while the wife was away for a few days . . . beer empties, scraps of cheese, and empty cracker boxes.

A few suggestions on how to *see* good pictures. Try leaving your camera home on your next picture hunt. Next day when you take your camera, you'll take fewer pictures but far better ones. Take only a piece of cardboard in which you have cut a small rectangle the proportions of your picture size. You'll find this "framer" a great help in picking out good pictures. What is less conspicuous and, incidentally, easier to use for low angle shots is your ZEISS IKON waist-level view finder. When you're looking at possible picture subjects prac- (Continued on page 215)



photographed by WILLIAM SCHOEB *with*
SUPER IKONTA B - Tessarf: 2.8-8 cm

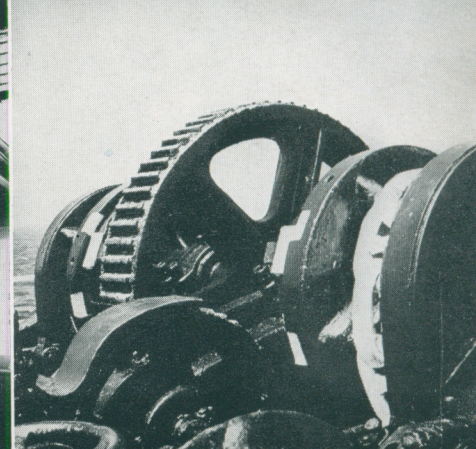
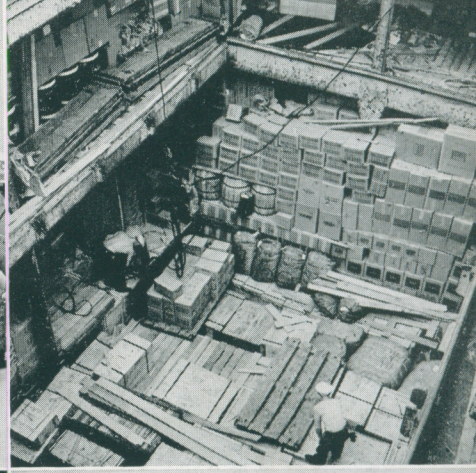
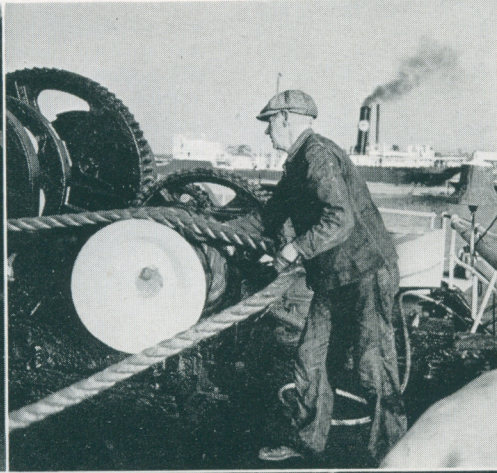


S.S. KANSAN

American Hawaiian Lines

Enroute

San Pedro to San Francisco



Hunt with Your Camera

FRITZ SCHLANZE

(Continued from the August Issue)

THE CANADIAN or Rocky Mountain Wapiti, or Elk, is being hunted in Montana, Wyoming, Idaho, and their border states. The Roosevelt, Olympic, or Humboldt Elk, or Wapiti, is larger and more magnificent than his Rocky Mountain brother with larger, broader, and more massive skull and darker coloration. They are found from the northwestern end of Vancouver Island through the coast ranges of Washington and Oregon to northwestern California. The late President Theodore Roosevelt has said: "They are not only the most stately and beautiful of American game, but also the noblest of the stag kind in the world." These animals are protected and found in many national parks and forests. The herds are increasing steadily, and during severe winters with deep snow the national park service has to furnish hay to keep the elk alive. The early tourist and visitor in the spring may be fortunate enough to find bands of elk, the bulls with horns in velvet, cows with their calves on spindling legs, near the hotels and camp grounds of the national parks. They soon leave on their journey to higher levels, although the bull elks during the summer months separate from the herd and are seen frequently in clearings near the highways. They are generally fearless, and you may, without danger, get very close by moving cautiously and quietly, taking your time. When your car stops, the animals become more alert, so after step-

ping out, wait until the game shows ease, then move into range with your CONTAX, making sure the wind is against you and you are covered by trees or underbrush.

Moose are found in marshes and near the head waters of our great rivers in northern Minnesota, Michigan, and our northwestern states, also in the swamps and lakes of the flats between mountain ranges. During the early morning hours and late in the evening they may be observed feeding on submerged plants, standing deep in the water. I do not claim any beauty for this king of the marshes and lakes with his shovels instead of antlers, his dangling bell, his hunch back, his unproportioned pair of legs, and his great, overgrown nose. Nevertheless, his imposing size commands your respect and makes him, with the reflections and ripples of the water, a picture worth time and effort in stalking with your camera. You will enjoy this sport and be comfortable as well as dry if you wear fisherman's rubber hip boots. During mating season in the fall, the bull moose is one of the few animals that will charge a man without being provoked. On account of the very early and late hours when moose can be seen and approached, only the very fast SONNAR Lenses are advisable.

Without question the prong-horned antelope is one of the most unusual animals in the United States. It is not related to the deer or sheep family but is the sole remnant of its species, only resembling the antelope of other parts of the world on which account the early explorers named it "antelope." The prong horn is most curious and will investigate any strange occurrence, a habit which made it an easy target for the early settlers who nearly wiped it from the plains. While they are still found in the plains on both sides of the Rockies in southeastern Oregon and northwestern Nevada, greater numbers will be found in Yellowstone and Teton National Parks in Wyoming. Entering Yellowstone National Park through the gate at the North Entrance during August and September, you will observe not more than a stone's throw away from the





The pictures reproduced with this article in this and the two preceding issues are all by FRITZ SCHLANZE with the CONTAX, SONNAR F:2 50 mm. Lens, and SONNAR F:4 135 mm. Lens.

highway in plain view from the town outside the park more antelope than you could easily count. With the rolling hills covered with sage-brush and Electric Peak (11,155 feet) as scenic background, you can shoot one or a whole herd without leaving the car. When in motion, they leap with all four feet from the ground and show great speed combined with grace. A fast shutter speed is required.

Only a few of the cat family can be found in the western part of the United States as it (*Please turn to page 214*)



Flashlight Photography: Synchro-sun-flood

HERBERT C. MCKAY, F.R.P.S.

(Continued from the August Issue)

HOWEVER, the flash is just as useful as an auxiliary to flood as to sunlight. At first it appears absurd to make use of flash when we have flood light available. However, in the hands of the amateur the auxiliary flash is of the greatest value imaginable. Even with photoflood lights, the amateur is always faced with the problem of inadequate light. Rarely will the amateur use more than a half dozen flood bulbs at one time, yet this is barely sufficient to build up the general lighting level to the desired intensity to make instantaneous exposures possible.

At the same time, the complaint with flash from some beginners is that flash lighting is both flat and harsh. (A queer combination, but the criticism is almost universal.) True, the experienced flash user will obtain just as beautiful lighting effects with flash as with flood, but in the hands of the beginner and the worker with elaborate arrangements, the floods are

used to produce the general unaccented or flat basis of the desired lighting. When that has been done, the flash is used for the accent lighting. The result is that the scene has no deep shadows. The lighting is full and soft with a contrast range producing that desired "sparkle" in the negative which is so rarely obtained when using amateur flood equipment.

The flash has many other advantages when used in this way. There is no need to make the flood lighting so intense that it is uncomfortable for the subject. The lights may be moved to such a distance that the light is no longer "spotty." The overall illumination need not be cut down to provide lamps for the accent lighting. Two, or three or even more accents may be used, by placing the flash bulbs properly. The background may be illuminated, and by using a string of three or four baby size bulbs this background illumination can be made far more uniform than when a single flood is used.

One problem which makes even the experienced professional work is that of transillumination. Translucent and semi-transparent fabrics and similar substances too often look heavy and dull when the illumination is all from the front—yet to illuminate just the spot wanted with ordinary light sources is almost impossible. About the only thing which will serve is a focusing spot used in a remote position. However, by using baby size bulbs the light can be placed just where it is wanted. A cardboard shield can be arranged to protect the fabric from scorching at the instant of firing.

Of course, once the possibilities of the auxiliary flash are understood, there is the temptation to use more and more bulbs. It becomes so easy to spot the lights that there are times when we want to use five or six or even more bulbs at once. Sometimes we could easily use ten. Naturally the secret of synchronous flash is firing the bulbs right on the dot; and the usual battery will not kick off eight or ten bulbs. However, the use of a multiple flash unit enables current from the house supply to be used to fire as many bulbs as may be desired, and all of them will be fired in true synchronization.

By the way, speaking of multiple flash, there are two points which must be cleared up as they have cost many bulbs and lost pictures. This is the practice of firing bulbs by radiation and wiring the bulbs in series.

The table which was published in a preceding installment of this series indicated that the action in synchronous flash operation is not instantaneous, but occupies an appreciable period of time. Successful synchronization depends upon making the electrical contact *before* the shutter operates, so that the various time lag periods will have elapsed, producing the peak of illumination just as the shutter operates.

When bulbs are fired by radiation: i.e. when the firing is accomplished by supporting the bulbs





All photographs with SUPER IKONTA A, Kalart Speed Flash, Wabash No. 2 Bulb, and ZEISS IKON G-2 Filter; exposure 1/100th second at F:16. Courtesy of Kalart Company.

in physical contact without electrical connection to any but the first bulb, it will fire, then there is a lag before the next bulb fires, and so forth, so that the shutter will have closed before the second bulb fires.

Series wiring is also subject to the same successive timing, but in addition there will be a breakdown early in the chain. Even the second bulb fails to fire in some cases. This is because the circuit is broken as soon as the current stops passing the burned fuse of the first bulb. Because there is a certain current duration two or more bulbs *may* fire, but series wiring is most unreliable.

Bulbs for synchronous firing *must* have individual wiring from the current source. More than this the wire must not be too small, for with fine wires of considerable length, the resistance is so great that there is an additional time lag introduced. So, when remote bulbs are to be fired, they must be individually connected to the current source by fairly heavy wire, such as U. S. Gauge 14 or 12.

When more than one bulb is to be fired, a nine volt battery should be used; and for more than three bulbs a multiple firing unit should be employed. Bulbs should never be fired by connecting them direct to 110 volt house current, as bulb explosions *may* occur.*

The flash bulb is definitely not limited to substituting for a more desirable form of artificial light. It is the most universally versatile light source available for photography. Unless the photographer has an unlimited current and unlimited lights at his command (a condition extremely rare outside

Hollywood), the flash presents far greater possibilities than could otherwise be found.

The flash used as a light unit rather than as emergency equipment, makes it possible for the amateur to duplicate the most elaborate professional effects; and when we stop to consider that special lighting equipment costs from fifty to five hundred dollars per unit, the flashlight also offers elaborate effects at the lowest possible cost.

This brings us to the often argued question of costs. When the cost of flash bulbs is counted against the other costs of making good pictures, it becomes a minor item. Certainly, the few cents represented by the bulb are not of importance when they represent the difference between a fine picture and one which is mediocre—or even one which cannot even be made!

All in all, competent amateurs are rapidly coming to believe that the photographer who does not use flash bulbs is working sometimes under too serious a handicap to produce really fine work.

(In this series of articles commencing in the March, 1938, issue of ZEISS MAGAZINE, Herbert C. McKay, F.R.P.S., has covered the history of flashlight photography, the construction and characteristics of the flash bulb, the construction of synchronizers, the problems involved in attaining synchronization, the adjustment of the synchronizers and synchronized flash with daylight and photo-flood bulbs. The concluding article in the series—*Synchro-color*—will commence in the October Issue. In answer to the numerous requests received for back issues of ZEISS MAGAZINE containing the articles in this series we regret to say that they are almost out of print, and no complete set can be furnished.—Editor.)

*Attention is called to the possibility that 110 volt house current will undoubtedly burn out the synchronizer contacts.—Ed.



Illustration No. 3. DuPont Parpan developed in Eastman Ultra Fine. Upper left: exposed at Weston 64, flat. Upper right: exposed at Weston 32, good. Lower left: exposed at Weston 16, very good. Lower right: at Weston 8, hard.

Arriving at the Optimum

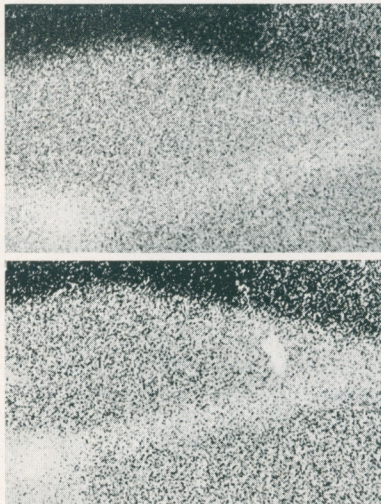
KLEIN, ROUP & SMITKA*

(Continued from the August Issue)

THE SECOND step was to make comparisons of all the six diameter enlargements. Their contrast and richness in tone was graded as *flat*, *good*, *very good*, and *hard*. Samples of these are shown in Illustration No. 3. The shadow detail was graded as *one* for little or no shadow detail, *two* for normal, and *three* for full shadow detail. Examples of these are shown in illustration No. 4. This data is summarised in Chart D. The comparative values of

*Members: Shorewood Camera Club, Milwaukee, Wisconsin.

Right: Illustration No. 7. 55X enlargements showing comparative grain structures of (top) Superior developed in Edwal 20 and (bottom) Parpan developed in Edwal 12.



the artificial light exposures and the daylight exposures were so close that it was deemed unnecessary to include a separate chart showing the ratings of the prints from the negatives exposed under artificial light. Contrast, richness in tone, and shadow detail were the factors that determined the optimum speed ratings. These ratings for each film with each developer are given in Chart E.

The third step was to make comparisons of grain size and grain distribution in the fifty-five diameter enlargements. Careful inspection of these prints show that the films can be classified in two groups: *one*, the coarser-grained group comprising DuPont Superior, Eastman Super X, Eastman Supersensitive Panchromatic, and Agfa Superpan; *the other*, the finer-grained group comprising Eastman Panatomic, DuPont Par-

pan, Agfa Finopan, DuPont Micropan, and Agfa Plenachrome. This is shown in Illustration No. 5. The developers producing the finest grain were Edwal 20 and Champlin 15. The next in line was Eastman Ultra Fine Grain Developer, while Agfa 17, Edwal 12, and Eastman D-76 belong to a third group which render a coarser grain than any of the others. These are shown in Illustration No. 6. Grain differences between these three groups of developers is considerably greater than grain differences between the fine-grain and coarser-grain film groups. Any of the coarser-grain films developed in the finest-grain developers (Edwal 20 and Champlin 15) give as fine, or finer, grain as any of the fine-grain films developed in Eastman Ultra Fine Grain Developer or the coarser-grain developers (Agfa 17, Edwal 12, and Eastman D-76). This data is clearly given in Chart F. The marked superiority obtained by developing a coarser-grain film (DuPont Superior) in a fine-grain developer (Edwal 20) over that obtained by using a fine-grain film (DuPont Parpan) in a coarser-grain developer (Edwal 12) is shown in Illustration No. 7.

These tests show, therefore, that it is inadvisable to use a fine-grain film with a coarse-grain developer because a higher speed rating (cf. Chart E) and a finer grain result (cf. Chart F) is obtained by using a faster, coarser-grain film in a finer-grain developer.

In summarizing it is well to review *first* what is meant by Optimum, *second* what the relationship is between negative density and correct exposure, *third* how correct exposures shall be determined, and *fourth* what variance in grain results are obtained by different combination of films and developers.

1. The optimum, as previously defined, relative to film processing, is that exposure and development of a negative which will give a combination of good contrast and sparkle in tone, normal detail in the highlights and shadows, and be of sufficiently fine grain to transmit these qualities to the enlargement without coarseness of grain.

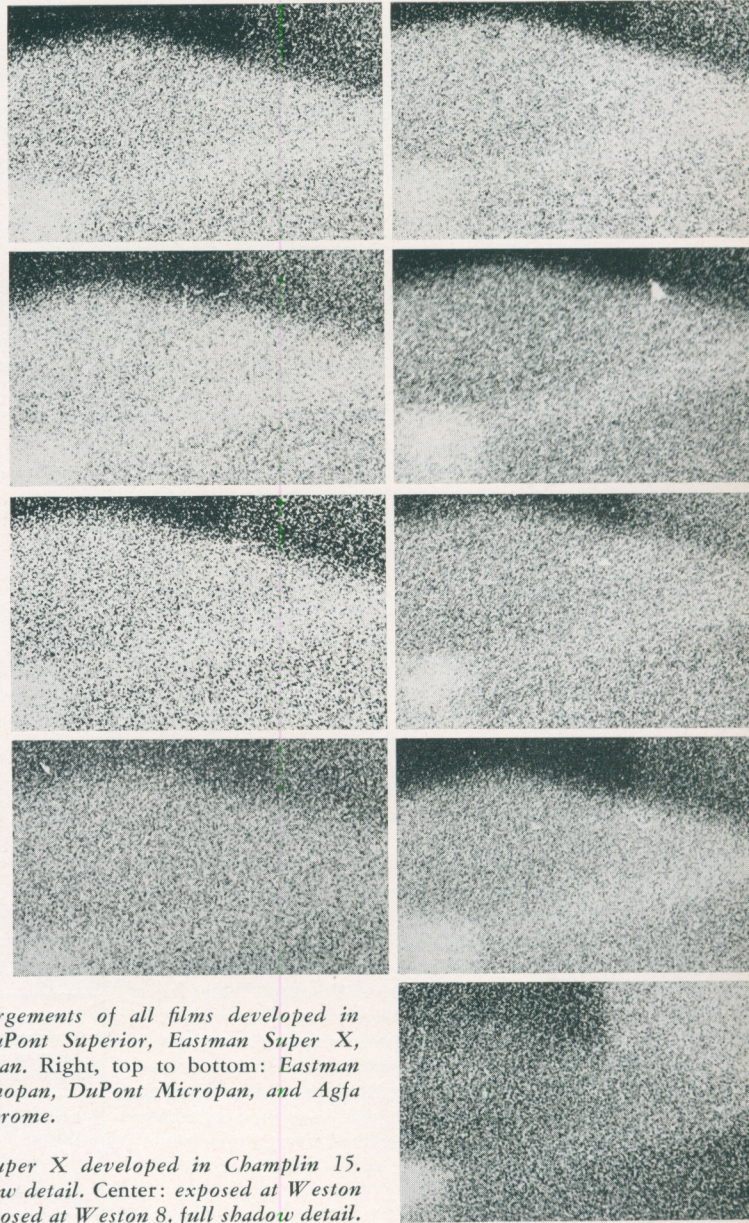
2. When any subject is photographed and the film is developed and fixed, the final negative density bears a definite relationship to the exposure given. Moreover, if a definite subject is photographed on one type of film, and that film is processed in a standardized developing method, the average negative density obtained would be directly related to the exposure given, and in turn this density could be used as the cri-

terion in determining correct exposures. However, the average negative density, even with correct exposures in each case, will vary with the subject photographed and the film and developer used. Thus, when these conditions are not held constant, as in this experiment, the average film density cannot be used as a means of determining correct exposure. 3. In determining correct exposure for a given film, the film developer to be used must be decided before the correct film-speed rating can be known. The film-speed ratings given in Chart E are the ones which will render maximum quality prints. Any deviation from these ratings will give correspondingly decreased quality. Thus, every worker may decide for himself just what he wants most. The newspaper photographer may have to make certain sacrifices in quality to get the picture he must have against all odds. The pictorialist, on the other hand, may carefully (*Please turn to the following page*)



Right: Illustration No. 5. 55X enlargements of all films developed in Edwal 20. Left, top to bottom: DuPont Superior, Eastman Super X, Eastman S. S. Pan, and Agfa Superpan. Right, top to bottom: Eastman Panatomic, DuPont Parpan, Agfa Finopan, DuPont Micropan, and Agfa Plenachrome.

Left: Illustration No. 4. Eastman Super X developed in Champlin 15. Top: exposed at Weston 64, no shadow detail. Center: exposed at Weston 16, normal shadow detail. Bottom: exposed at Weston 8, full shadow detail.



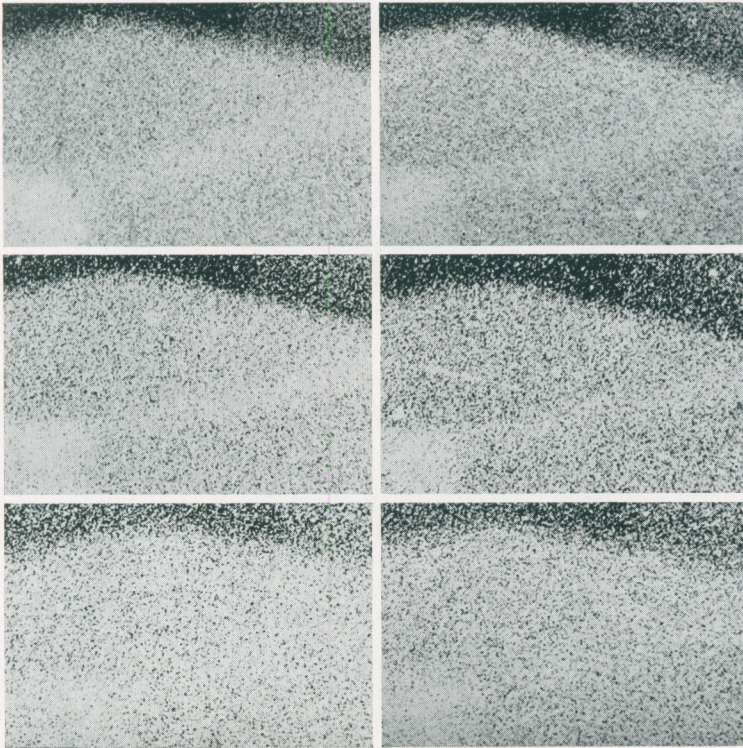


Illustration No. 6. 55X enlargements of Eastman Panatomic Film developed in each of the six developers. Left, top to bottom: Edwal 20, Eastman Ultra Fine, Agfa 17; right, top to bottom: Champlin 15, Edwal 12, and Eastman D-76.

(Continued from preceding page) plan every detail, exposing and developing his film to get the result he desires. Both, however, must consider all of these factors before determining exposures.

4. The finest negative grain is obtained by using a fine-grain film in combination with a very fine-grain developer. This combination is preferable where fine grain rather than speed is desired. If a higher film-speed rating is essential, it is best to use one of the faster films in combination with a very fine-grain developer. If a still higher film speed is necessary, a more vigorous developer should be used with a faster film. It is unwise to ever use a fine-grain film and, as is proven by these tests, lose the fine-grain qualities by developing the film in a vigorous or coarser-grain developer.

Both the carefree worker and the meticulous one, the purist and the pictorialist, the man who makes photography his profession and the one who makes it his hobby, all stand upon common ground in that they must select their film, choose their developer, and then determine their exposure. To all of these the results of these experiments, carefully conducted with equipment available to most photographers, give a comprehensive comparison of grain-control methods and film-speed ratings, which, while not as optimistic as some that have been heretofore published, must be accepted if maximum quality rather than maximum speed is the goal.

THE END

POLARIZATION CONTROL

(Continued from page 201) Therefore, with the BERNOTAR the photographer can control or eliminate the intensity of reflected polarized light without materially affecting other light radiations. In this way the extent to which reflections from bright non-metallic surfaces will appear in a picture, provided they are reflected between the angles of 32° to 37°, can be controlled without affecting other parts of the picture. These reflections may be shown in full, they may be stopped completely, or they may be dimmed to the extent that the individual photographer deems most satisfactory. This control is especially valuable in many contra-light pictures. Another advantage of the BERNOTAR lies in its use in controlling the intensity of certain portions of the sky in both black-and-white and color photography. The light from blue sky at an angle of 90° to the sun is polarized. Therefore, with the BERNOTAR the intensity of this portion of the sky can be controlled without affecting other parts.

With the CONTAMETER the supplementary lens is placed over the camera lens before the ORIENTER is fixed in position. Since the ORIENTER unlocks the infinity catch of the CONTAX, care must be taken to see that the camera lens remains focused at infinity. A portion of the focusing circle of the CONTAMETER

range finder is blocked by the ORIENTER, but more than enough of the circle remains in the clear to permit accurate focusing. Try the BERNOTAR in close-up photography with the CONTAX, CONTAMETER and ORIENTER; you will be surprised at its possibilities and versatility in operation.

When developing films exposed through the BERNOTAR, compensate for the slight decrease in contrast. With the new Agfa Superpan Supreme, a ten per cent longer developing time than that recommended by the manufacturer suffices. And the new "ultra" emulsions with the BERNOTAR are faster than the older pans without.

The data for the pictures reproduced herewith is as follows: 1. *Conservatory Roof*: left, BERNOTAR set at zero; right BERNOTAR set at maximum absorption. 2. *Hands on Piano Keys*: right, BERNOTAR set at zero; left, BERNOTAR set at maximum absorption. 3. *Clerk's Photography*: CONTAMETER with No. 30 supplementary lens. Left, BERNOTAR set at maximum absorption; right, BERNOTAR set at zero.

CHART F: CLASSIFICATION OF FILMS AND DEVELOPERS

FILM	EDWAL 20 CHAMPLIN 15	EASTMAN ULTRAFINE	EDWAL 12 EASTMAN D-76	AGFA 17
DUPONT SUPERIOR EASTMAN SUPER X EASTMAN S. S. PAN AGFA SUPERPAN	FINE	FINE TO COARSER	COARSER	
EASTMAN PANATOMIC DUPONT PARPAN AGFA FINOPAN DUPONT MICROPAN AGFA PLENACHROME	FINEST	FINE	FINE TO COARSER	

Notes & News

ZEISS IKON LOAN EXHIBITIONS

The One-man Shows and Print Lectures comprising the Club sets of the ZEISS IKON Loan Exhibitions are reserved as follows during the next few months:

- BOB LEAVITT, A.R.P.S., ONE-MAN SHOW:
November 15th to 30th
California Camera Club, San Francisco, Cal.
- DR. MICHAEL WISHENGRAD, A.R.P.S., ONE-MAN SHOW:
October 3rd to 29th
Elmira Camera Club, Elmira, New York
- HELEN T. FARRELL, A.R.P.S., ONE-MAN SHOW:
October 10th to 30th
Dept. of Photography, Brooklyn Institute of Arts & Sciences, Brooklyn, New York
- REX HARDY-CARL MYDANS COMBINED SHOW:
September 17th to October 16th
Photographic Arts Society
- WALTER ENGEL ONE-MAN SHOW:
October 1st to 15th
Los Angeles Camera Club, Los Angeles, Cal.
- WALTER ENGEL FIFTEEN-PRINT LECTURE:
October 10th to 12th
Vermont Academy, Saxton River, Vermont
- GEORGE E. KIDDER SMITH ONE-MAN SHOW:
October 3rd to 15th
University of Wisconsin Camera Club, Madison, Wis.
- November 1st to 30th
Dayton Art Institute, Dayton, Ohio
- JOHN MULLER FIFTEEN-PRINT LECTURE:
November 22nd to 25th
Dept. of Photography, Brooklyn Institute of Arts & Sciences, Brooklyn, New York
- DEVER TIMMONS, A.R.P.S., F.R.S.A., ONE-MAN SHOW:
November 28th to December 10th
University of Wisconsin Camera Club, Madison, Wis.
- DEVER TIMMONS, A.R.P.S., F.R.S.A., FIFTEEN-PRINT LECTURE:
November 7th to 9th
Vermont Academy, Saxton River, Vermont
- November 29th to December 1st
University of Wisconsin Camera Club, Madison, Wis.
- CLYDE BROWN ONE-MAN SHOW:
October 3rd to 24th
Massillon Camera Club, Massillon, Ohio
- October 31st to November 26th
St. Joseph Camera Club, St. Joseph, Mo.
- EDWARD ALENUS, F.R.P.S., FIFTEEN-PRINT LECTURE:
October 17th to 19th
Baltimore Camera Club, Baltimore, Md.
- M. U. WALLACH, ONE-MAN SHOW:
October 1st to 31st
Miniature Camera Club of N. Y., New York, N. Y.
- November 14th to 27th
Baltimore Camera Club, Baltimore, Md.
- M. U. WALLACH, FIFTEEN-PRINT LECTURE:
October 26th to 28th
Dept. of Photography, Brooklyn Institute of Arts & Sciences, Brooklyn, New York
- November 14th to 16th
Baltimore Camera Club, Baltimore, Md.

The print exhibitions selected from among the prize-winning prints of the ZEISS IKON National Monthly Competition continue their travels during the next few months as follows:

- October 10th to 22nd:
Schaeffer Jewelry Co., 15 Commerce St., Montgomery, Ala.
- October 17th to 29th:
College Pharmacy, Inc., 47 Easton Ave., New Brunswick, N. J.
Hart Studio, 8 East Fourth St., Sterling, Illinois
Kayenay Camera Store, 14 First St., S.E., Mason City, Iowa
Reeves Camera Store, Perrins Bldg., Oklahoma City, Okla.
- October 31st to November 12th:
Headley-Perez Studio, Mulberry at W. 3rd St., Mansfield, Ohio
Buell-Kraft Studio, 52 West Third St., Mansfield, Ohio
- November 7th to 19th:
Schaeffer Co., 85 Halsey St., Newark, N. J.
Westing Photo Service, 3816 - 6th Ave., Des Moines, Iowa
L. Kaltman & Sons, Inc., 303 Washington St., Newark, N. J.
Yunker Bros. Inc., Des Moines, Iowa
- November 21st to December 3rd:
Metropolitan Motion Picture Co., Fisher Bldg., Detroit, Mich.
- November 28th to December 10th:
Wolk's Kamera Exchange, 410 Market St., Pittsburgh, Pa.

The general Sets of prints from the ZEISS IKON Loan Exhibitions will be shown according to the following schedule for the next few months:

- October 3rd to 15th:
Henry Herbert, 483 Fifth Ave., New York City
Marks & Fuller, 44 East Ave., Rochester, N. Y.
Laconia Camera Club, Laconia, N. H.
Aluminum Camera Club, New Kensington, Pa.
Muncie Camera Club, Muncie, Indiana
Lansing Camera Club, Lansing, Mich.
George J. McFadden, Inc., 202 Flatbush Av., Bklyn, N. Y.
- October 10th to 22nd:
Hartford County Camera Club, Hartford, Conn.
Vermont Academy, Saxton River, Vermont
- October 17th to 29th:
W. C. Stripling Co., Fort Worth, Texas
La Salle Camera Co., 133 W. Jackson Blvd., Chicago, Ill.
Henry Herbert, 483 Fifth Ave., New York City
Williams, Brown & Earle, 918 Chestnut St., Phila., Pa.
- October 21st to November 30th:
Northern Photo Supply, 521 - 2nd Av. So., Minneapolis, Minn.
- October 24th to November 5th:
England Drug Co., Main at Park Ave., Alliance, Ohio
Forbes & Wallace, Springfield, Mass.
L. M. Prince Co., 108 West Fourth St., Cincinnati, Ohio
- October 31st to November 12th:
Marks & Fuller, 44 East Ave., Rochester, N. Y.
- October 31st to November 26th:
Smith-Surrey, Inc., 129 Clinton Av., So., Rochester, N. Y.
- November 1st to 26th:
Manchester Camera Club, Manchester, N. H.
Portage Camera Club, Central Branch Y.M.C.A., Akron, Ohio
Oklahoma Camera Club, Oklahoma City, Okla.
Camera Pictorialists of Duluth, Duluth, Minn.
- November 7th to 19th:
Vermont Academy, Saxton River, Vermont
Central Camera Co., 230 S. Wabash Ave., Chicago, Ill.
- November 14th to 26th:
W. C. Stripling Co., Fort Worth, Texas
La Salle Camera Co., 133 W. Jackson Blvd., Chicago, Ill.
Fotocraft, 47 Battery Park Ave., Ashville, N. C.
Kelly Studios, 1026 Peach St., Erie, Pa.
Pelham Photo Copy Service, 223 East Jackson St., Muncie, Ind.
Williams, Brown & Earle, 918 Chestnut St., Phila., Pa.
- November 21st to December 3rd:
England Drug Co., Main at Park Ave., Alliance, Ohio
L. M. Prince Co., 108 W. 4th St., Cincinnati, Ohio
- November 28th to December 10th:
Marks & Fuller, 44 East Avenue, Rochester, N. Y.
- November 30th to December 14th:
Photo-Pictorialists of Springfield, Springfield, Mass.

Further particulars concerning the exhibition of these prints, as well as information about the national monthly competitions of ZEISS MAGAZINE, can be obtained from the ZEISS Dealers named above.

CONTAX NEGATIVE WALLETS

The easiest and most efficient way to file your 35 mm negatives is in the CONTAX Negative Wallets. Closed by means of an accordion fold, they measure $9\frac{1}{4}$ " wide and $2\frac{3}{8}$ " high. Opened, an entire roll of thirty-six exposures may be examined at once without handling, glassine sheaths holding the negatives in strips of six each. Protection from dust, dirt, and abrasion is afforded valuable negatives, yet they may be filed compactly on edge in boxes and be examined easier than if they had been kept in the original rolls. Inside the protective paper outside cover of each wallet there is space for the necessary data concerning each negative: title, date, diaphragm, shutter speed, etc., and there is space on the outside for indexing by either number or subject. Every user of 35 mm film should ask his ZEISS Dealer to show him one of these handy negative wallets.

HUNT WITH YOUR CAMERA

(Continued from page 207) became necessary for the protection of other game and livestock to kill them on sight. If you ever have the chance to observe the mountain lion or bobcat (lynx or puma) in the open, you will feel only friendly to the animal. To secure CONTAX shots of wild cats it is best to shoot them at night with flashgun and baited trap. Another declared robber and outlaw is the wolf and the coyote throughout America west of the Mississippi from Canada to Mexico. Like the wild cats, they remind us much of our household pets. This shy, dog-like animal is hard to find on your trip through prairie or woods. In Hayden Valley I watched a pair of coyotes hunting mice; they kept a good distance from me but did not show fear. With the help of a few old meat bones during the next few days, we almost became friends, and I secured many close shots.

The goal of our hunting trips should be the mountain goat of the American and Canadian Rockies. Hikes over bare mountain sides near the snowfields and glaciers and stiff climbs over rocks near the pinnacles will bring us to the home of these white, hair-coated climbers. To match their good eyes a powerful ZEISS Binocular will be of great assistance in spotting them. Carefully stalking closer against the wind, taking cover and often crawling on the ground, we may get into range for the SONNAR F:4 135 mm or longer focus lenses. The mountain sheep, or big horn, is found in the same region, also in the Absaroka Mountains and other ranges east and west of the Rockies and in the desert mountains of southern California, Mexico, Arizona, and Nevada. During the summer they stay above the timberline, but after the first snow storm the herds will be found migrating to the valleys. Only the rams carry the big, heavy horns wound around the sides of the head which make such an imposing picture; the females carry slender pointed horns and are often mistaken for goats.

In covering the many possibilities of big-game hunting, we should not forget the abundance and variety of smaller game to be found in all sections, but more easily observed in the national parks, forests, and game preserves. The marmot, or woodchuck, is a steady customer near camps and hotels, waiting for a hand-out in competition with chipmunks, ground gophers, and squirrels. The beaver and the fish otter are busily engaged at nightfall. Eagles and ospreys (fish hawks) soar through canyons and over the mountain meadows of the wild-animal paradise. Pelicans, the rare trumpeter swan, geese and ducks, all these add to the picturesqueness of the lakes and streams.

When going on foot in the hinterland to shoot big game, be well-prepared, carry map and compass, and take water or coffee along as you seldom find water during the summer. Carry the CONTAX in its Eveready Case slung over your left shoulder with the camera on the left side under your coat; alter the straps so that releasing a snap will lengthen them enough

so that you can bring the camera to your eyes. Hold the camera against the forehead without a tightening grip and press the release button at the moment between breaths. A reliable exposure meter—the one built-in the CONTAX III is specially commended—will help the camera hunter in the fields and woods where different light conditions are encountered at every step. A lens shade, which may be used also for rain protection while shooting, and a light yellow or green filter will often add considerably to the quality of your negatives. As "buck fever" may be experienced by even an old-time camera hunter, I recommend having the lens fairly wide open so that you can cut down on the shutter speed and overcome any possible movement of the camera in your hands.

THE END

Chart D—SHOWING CONTRAST AND SHADOW DETAIL OF ALL PRINTS FROM DAYLIGHT EXPOSED NEGATIVES

Film	Edwal 20	Champ- lin 15	Ultra Fine	Edwal 12	Agfa 17	E. K. D-76	Rating Used
DuPont Superior	F-1	G-1	G-1		VG-2	G-2	64
	G-1	VG-2	VG-2	VG-3	VG-2	VG-2	32
	VG-2	VG-3	VG-3	H-3	VG-3	VG-3	16
	G-3	G-3	VG-3	H-3	VG-3	VG-3	8
Eastman Super-X	F-1	G-1	G-1	G-1	VG-1	VG-1	64
	G-1	VG-1	VG-1	VG-2	VG-2	VG-2	32
	VG-2	VG-2	VG-2	VG-3	VG-2	VG-2	16
	VG-3	VG-3	VG-3	G-3	VG-3	VG-3	8
Eastman S. S. Pan.	F-1	F-1	F-1	F-1	G-1	G-1	64
	F-1	G-1	G-1	G-1	VG-1	VG-1	32
	VG-2	VG-2*	VG-2	VG-2	VG-2	VG-2	16
	VG-2	VG-2	VG-2	VG-2	VG-2	VG-2	8
Agfa Superpan*	F-1	F-1	F-1	F-1	F-1	F-1	64
	F-1	F-1	F-1	VG-1	VG-2	G-2	32
	VG-2	G-2	VG-2	VG-2	VG-3	VG-3	16
	VG-2	VG-2	VG-3	VG-3	VG-3	VG-3	8
Eastman Panatomic	F-1	G-1	G-1	VG-1	VG-1	VG-1	40
	G-2	VG-1	VG-1	VG-2	VG-2	VG-2	20
	VG-2	VG-2	VG-2	VG-2	VG-2	VG-2	10
	G-3	VG-3	VG-3	VG-3	VG-3	VG-3	5
DuPont Parpan*	F-1	F-1	F-1	F-1	F-1	F-1	40
	G-1	G-1	G-1	VG-1	G-1	G-1	20
	VG-2	VG-2	VG-2	H-2	G-2	G-2	10
	H-3	G-2	H-3	H-2	H-3	H-3	5
Agfa Finopan*	F-1	F-1	F-1	G-1	F-1	F-1	32
	F-1	F-1	G-1	VG-1	G-1	G-1	16
	G-2	G-2	VG-2	VG-2	VG-2	VG-2	8
	VG-3	VG-2	H-3	H-3	VG-3	VG-3	4
DuPont Micropan*	F-1	F-1	F-1	F-1	F-1	F-1	32
	G-1	G-1	G-1	G-1	G-1	G-1	16
	G-2	G-2	G-2	G-2	G-2	G-2	8
	H-3	H-3	H-3	H-3	H-2	H-2	4
Agfa Plenachrome	F-1	F-1	F-1	F-1	F-1	F-1	40
	G-1	G-1	F-1	VG-1	F-1	G-1	20
	VG-2	VG-2	G-2	G-2	VG-2	VG-2	10
	G-2	G-3	G-2	H-2	VG-3	VG-2	5

*Old style.

EXPOSE ONE HUNDRED ROLES

(Continued from page 199) versely, what he sees, or feels, most clearly and intensely, that thing will he capture strikingly and sincerely.

Portray the things that interest you most—things, or people, or scenes that gladden you or anger you. But do not be satisfied merely to record things about you. Record photographs are dull because we see so many of them.

Express the things within you, and soon your pictures will be unlike any pictures made by others. Your pictures will acquire individuality. They will be expressions of you and not mere imitations of pictures made by others.

GOOD PICTURES

(Continued from page 203) tice eliminating subject matter extraneous to your central ideal by closer approaches, by different angles, and, when possible, by removing unnecessary material. Make some kind of pencil sketch of the picture you see. However crude your draftsmanship, the very act of sketching it will automatically suggest improvements and clarify your intentions. Don't be lazy about climbing around to find the picture or about coming back to the scene again and again to find the best light conditions. Finally, remember that there is always a good picture much nearer than "just ahead" right under your nose, under your feet, at your elbow. A good picture can be made of any subject if you're willing to take the trouble to discover it.

MONTHLY COMPETITIONS

(Continued from page 194) where we want to convey strength, because it exaggerates the size and importance of the figures. This abnormal viewpoint also attracts the eye because it is different from the way we actually see it in life. The low horizon, too, tends to dramatize because it gives us a more beautiful view of the heavens. Finally, Mr. Wiener, knowing the value of color in relation to subject matter, submitted a beautifully brown-toned print.

The Hat secures second price for Frederick H. Hurd. This delightful picture was enlarged from a negative exposed in his CONTAX to which was fitted the SONNAR F:4 135 mm Lens. The lighting equipment used furnished 1500 watts, and the exposure was 1/50th second at F:5.6. There is no gainsaying the fact that much of the success of a picture is inherently due to the subject matter. No matter what our technical achievements, a beautiful landscape with striking clouds will have greater appeal than a dreary landscape with a grayish sky. The same holds true in pictures of people. A pretty girl's face will find more general appeal than that of a homely one. If, in addition to a lovely model, we add the attraction of unusual clothing, we are on the way to success. No doubt many amateurs have noticed how pictures of peasant maidens with fancy handkerchiefs on their heads, tripping through

Chart E—SHOWING OPTIMUM WESTON FILM SPEED RATINGS OF VARIOUS 35 MM. FILMS FOR DAYLIGHT AND ARTIFICIAL LIGHT EXPOSURES WHEN DEVELOPED IN EACH OF THE FILM DEVELOPERS

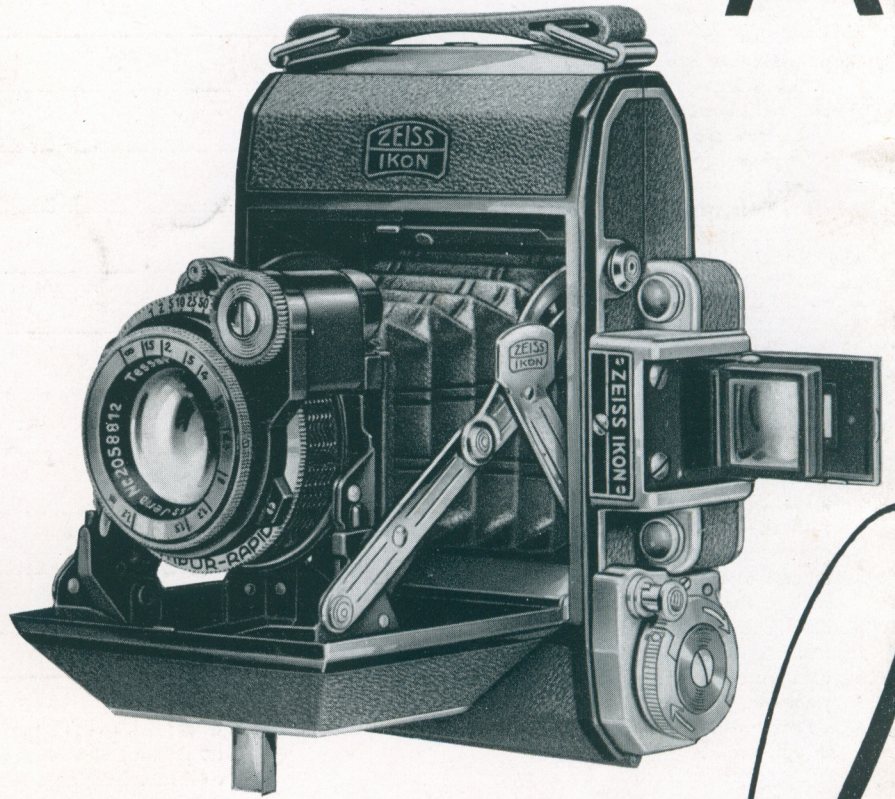
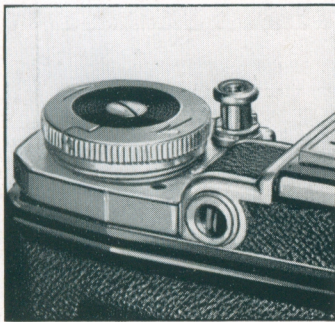
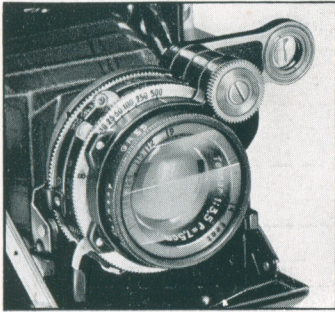
Film	Illumination*	Edwal 20	Champion 15	Ultra Fine	Edwal 12	Agfa 17	E. K. D-76
DuPont Superior	D	24	32	32	50	50	50
	T	20	24	24	40	40	40
Eastman Super-X	D	20	24	24	32	32	32
	T	20	24	24	32	32	32
E. K. S. S. Pan.	D	16	20	20	20	24	24
	T	16	20	20	20	24	24
Agfa Superpan†	D	16	16	16	20	24	24
	T	12	12	12	16	20	20
E. K. Panatomic	D	12	16	16	20	20	20
	T	10	12	12	16	16	16
DuPont Parpan†	D	10	10	10	12	12	12
	T	10	10	10	12	12	12
Agfa Finopan†	D	8	8	8	12	10	10
	T	6	6	6	10	8	8
DuPont Micropan†	D	8	8	10	10	10	10
	T	6	6	8	8	8	8
Agfa Fine Grain Plenachrome	D	12	12	12	16	12	12
	T	5	5	5	6	5	5

*D indicates daylight, T tungsten. † Old style.

wheat fields with an accordion at a rakish angle, go over better than a picture of the girl friend in her everyday American clothes, sitting on a park bench. If you want your pictures to stand out, try to make them different. For example, let's visualize our present picture without the hat; then you will see what we mean. Charming as the face is, the addition of this type hat immediately adds a note of sentiment and romanticism, also helping the composition because of its graceful contours. So where we have a combination of pleasing features, fine expression, and the right accoutrements, we cannot fail to have a winner. To those who are interested in using the small camera for portrait work, wishing to avoid the trouble of retouching, it may be interesting to know that Mr. Hurd used panchromatic make-up on the face of the model before the exposure.

The third prize award goes to Thomas L. Alexander for *Painter* taken with a CONTAX fitted with the SONNAR F:2 50 mm Lens on Agfa Finopan with an exposure of 1/125th second at F:4 at 8:30 a.m. in bright sunlight. This picture is modern in its treatment, and it again demonstrates how ordinary subjects can be used to make interesting and successful pictures. A picture of a man painting may not be interesting at all, but if we secure the picture at a time when the light is just right or makes a striking pattern, we have something more than just a record shot. The fantastic shadow on the wall not only adds to the pictorial quality; it is also the means of conveying a strong stereoscopic feeling, that is, creating the illusion of third dimension. The duplication of the figure through the shadow is a good way of creating emphasis. Whenever we repeat anything in the picture, it is natural that it becomes more important simply because of this duplication.

SUPER IKONTA A



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