

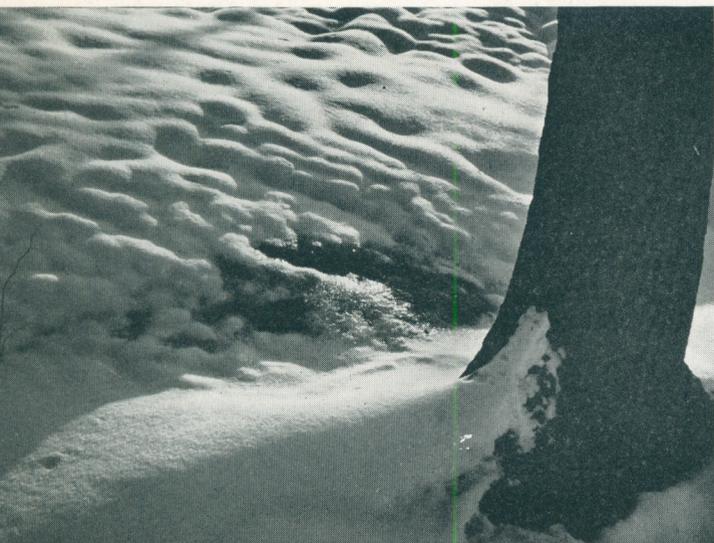
Leiss

MAGAZINE

March, 1939



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Vol. V
No. 3



Snow Dunes

THIRD PRIZE

JOHN MULLER



Big Sister—Little Sister

SECOND PRIZE

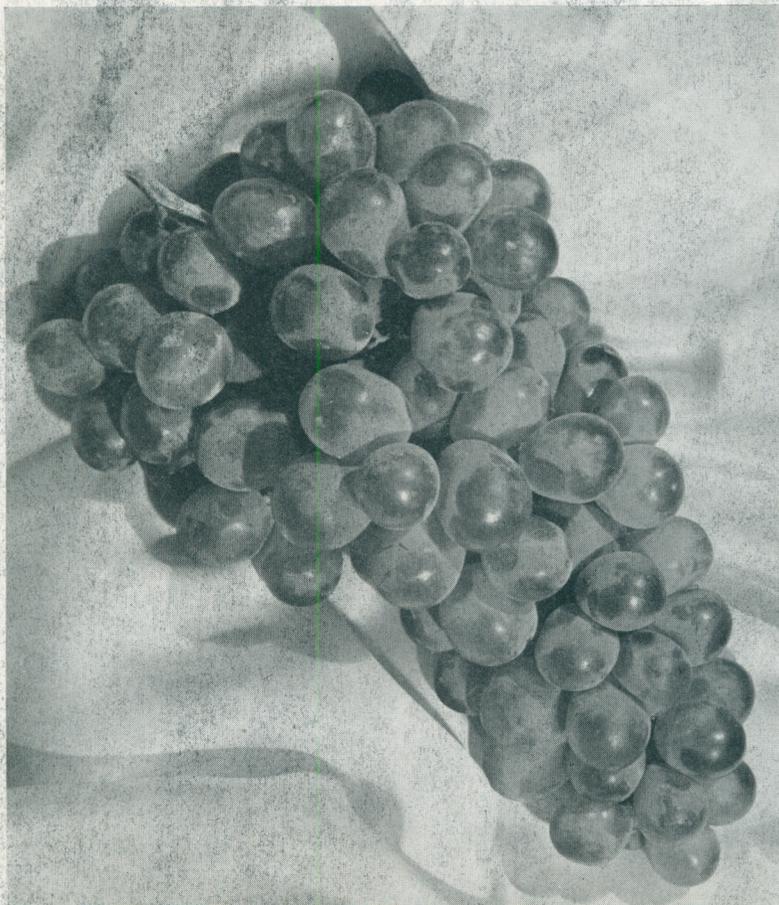
JOHN FUNARO

Zeiss Ikon Monthly Competition

FIRST honors this month go to Nelson Page for an excellent still-life study, *Grapes*. The picture was taken with the SUPER IKONTA B and TESSAR f/2.8 8 cm Lens, the Contameter being used so Mr. Page could

FIRST PRIZE

Grapes



work within a few inches of his subject and secure the largest possible image. With two No. 1 photofloods and the camera on a tripod, the exposure was one second at f/22. Still-life subjects make an excellent training

NELSON PAGE

for the photographer in the art of composition. In almost any other type of photography we are not actually creating a picture but merely selecting a point of view which appeals at the moment. In other words, the setting has been arranged, and nothing remains but to choose the viewpoint and press the release. With still life, however, we are entirely on our own. The conception of the idea, the securing of the proper materials, then the arrangement and lighting of these materials in such a way that we have actually created the scene is entirely up to us. Such practice makes us so much keener when we devote our efforts to other phases of photography. Generally, as with other types of work, the best pictures are the simplest. Mr. Page has kept this in mind. By placing the cluster of grapes against a simple, white background he is able to show (Please turn to page 58)

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No. 3



E. H. PICKERING

ZEISS MAGAZINE.

Devoted to Zeiss Ikon Photography

VOLUME V

NUMBER THREE

MARCH, 1939

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THIS MONTH

... Dr. E. G. Evans gives us the basic rules for successful sequence pictures of fast action, for which he considers a 35 mm Camera and long-focus lens a necessity—and demonstrates the value of his rules with the excellent pictures he selects to illustrate his article. . . . Bob Golby, who is well-known for his performance photographs reproduced in many of our national magazines and included in the various ZEISS IKON Loan Exhibitions, tells the story behind one of his better-known pictures, and in doing so lets us in on some of the secrets of performance portraits from the orchestra . . . the series of articles on night photography continues in this issue with hints on the use of window dummies for film, exposure, and development tests . . . photographing from the top of the world's tallest building has been David Finclair's hobby for five years; herein he tells us what and what not to do as a result of his experience . . . in a brief factual article, Le Roy Roselieve, Director of Research for Fink-Roselieve, releases for the first time the formula for their popular X-33 Developer.

... and next month a new-user of the CONTAX—and a lady at that—will tell us of her experiences and show some of her first pictures . . . a well-known research worker in the field of fine-grain developers reveals some interesting facts about paraphenylenediamine and offers suggestions as to modifications in fine-grain developers to secure various effects . . . an experienced trout fisherman—equally experienced with the camera—will advance suggestions that will help you to catch pictures on the stream during the forthcoming season.

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Edited by Fenwick G. Small

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Here I Come

VICTOR HAVERMAN

FROM THE FIFTH ANNUAL ZEISS IKON EXHIBITION
SUPER IKONTA B; Exposure 1/100 second at f/5.6 with G—2 filter



Soaring overhead looking for food

A Seagull Goes Fishing

E. G. EVANS, M.D.

A SERIES of pictures will frequently tell the story of action much better than a single picture. In the study of action, such pictures are invaluable, for all too often the single picture portrays an awkward position which looks unusual to the eye. Certain types of action series are best made by the new TENAX which allows exposures to be made in a series at extremely short intervals. With other types, in which the action is too rapid for anything but a high-speed motion picture camera, the CONTAX or SUPER IKONTA B will serve if the

action tends to follow a similar pattern.

While watching seagulls swoop down on the water, snatch a fish, and be away—all in a fraction of a second—I became intrigued in making a study with my CONTAX to see how it was done. The film costs, particularly with bulk film, are low, so a great many pictures were taken from which the finished series could be chosen. This is one secret in securing a good set of series pictures showing action: always take plenty of pictures of all phases of the action from which a selection can be made later

The pictures commence with the one shown on the preceding page; then they proceed across this page as indicated by the titles. Note how the continuity of action has been followed in this series, one or two better pictures having been discarded because they would have broken such continuity.



All pictures and titles by

DR. E. G. EVANS

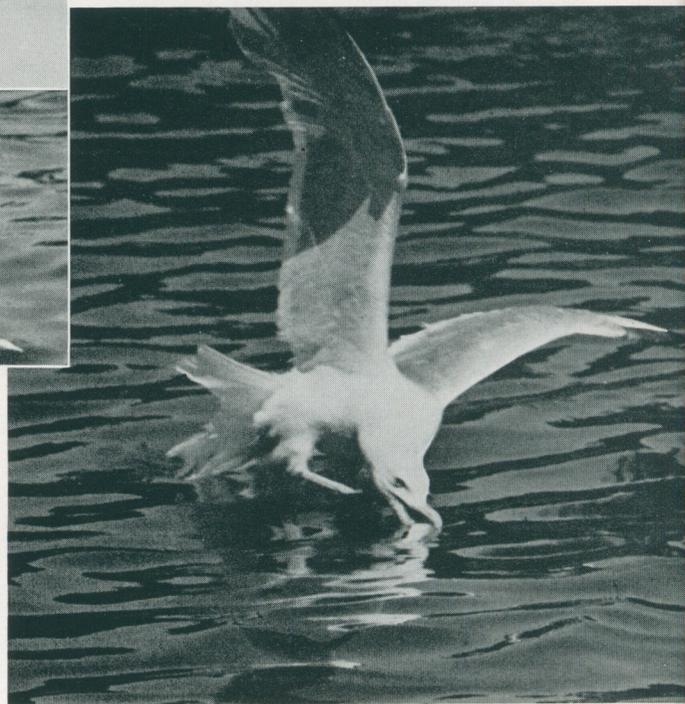
photographed with

CONTAX & SONNAR f/4 13.5 cm Lens

for the finished set.

The equipment used in taking the accompanying series of action pictures showing seagulls fishing consisted of the CONTAX, the SONNAR f/4 13.5 cm Lens, the ALBADA FINDER for the 5 and 13.5 cm lenses, and a GR-55 yellow-green filter. The lens selection was fortunate, for the birds would not come very close, yet I secured good-sized images on the negative and did not have to resort to tremendous enlargement. Another evidence of the value of the interchangeable lenses of the CONTAX. The ALBADA FINDER allowed me to follow the rapid action of the birds at all times with both eyes while viewing them in the exact framing they would appear on the negative, almost an essential with subjects moving as rapidly as a gull in full flight. The yellow-green filter darkened the skies and made the birds stand out in the overhead shots.

There is a secret to photographing seagulls while fishing. It does not consist in putting salt on their tails. The secret is to feed them the fish yourself, for then you can place the action of the final dive almost exactly where you want it. In my case, I wandered down to the wharves as the fishing boats came in from Lake Michigan and got a number of fish that were too small to sell. After throwing a few in the water, I soon had a myriad of gulls wheeling about overhead. From then on it was easy. A fish was tossed into the water about twenty feet out, and the camera was rapidly, but accurately, focused on the fish. In a few seconds a gull would dive down, grab the fish, and be on his way. In spite of the fact that



the shutter was tripped as soon as the gull flashed into the field of view, in some instances the gull was caught either before or after catching the fish. This shows the impossibility of trying to do such a series with any camera unless it were a mechanically-operated motion picture camera producing from twenty-four to sixty-four pictures a second.

After many exposures of the gulls landing on the water, grabbing the fish, and taking off again, a series of exposures were made of the gulls wheeling around in the air and diving down towards the water to get the fish. This proved interesting, for there are many phases to the birds' actions in the air—flying, climbing, turning, soaring, diving—and I wanted to secure as many as possible. When I had completed

The Left Page

Upper left: Spotting fish, the gull banks and starts down.

Upper center: Down over the lake with landing gear ready.

Lower center: The gull levels off just over the surface just short of his meal.

Lower right: Without raising a splash the gull catches the fish.

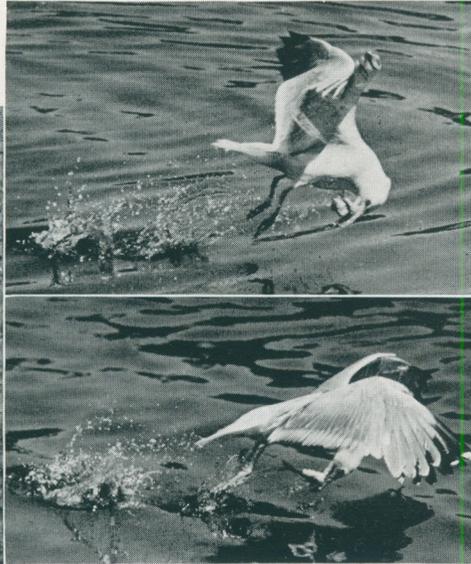
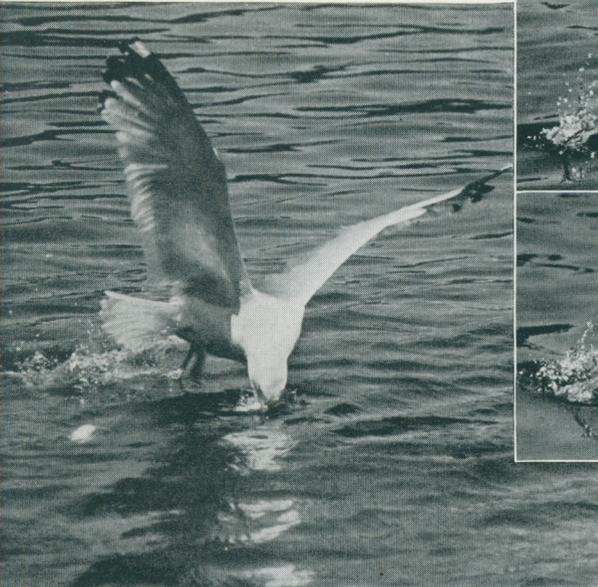
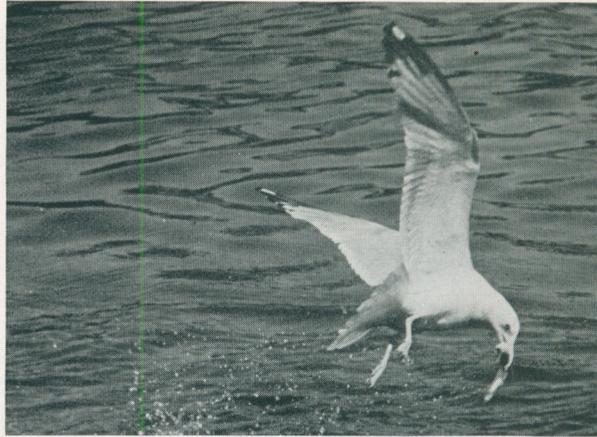
The Right Page

Lower left: His forward momentum is carrying him in deeper.

Lower center: He is free of the water with the fish safely held by the head well back under his body.

Upper center: Starting flight but still well off balance.

Upper right: Now the bird is in flight with the fish safely held.



torial trend is towards a series of pictures to tell the whole story. Golf stroke analysis can be easily done this way as can almost any other sport action. A series of eight or ten photographs of a horse jumping a hurdle should make an interesting group and be a great improvement over a single photograph. Of course, if you are trying to sell your series, an original idea will help a lot. But, in any event, try a series of action pictures with your ZEISS IKON miniature.

It will provide you with a great deal of fun and amusement, and you will learn much about fast action that you never knew before.

In making them remember the important points in securing good sequence pictures of action with the CONTAX and other ZEISS IKON 35 mm Cameras.

1. Plan the action and the shots in advance as far as possible.

2. Take as many pictures as possible of all phases of the action.

3. Secure pictures of the subject before and after the commencement of the part of the action for which the sequence is desired.

4. From the negatives or test prints select those for final prints that show a continuity of action throughout.

5. Brief captions will add much to the finished series. Always remember that the value and effectiveness of the series will depend on the ingenuity and foresight applied to its making.

the series of the bird in the air, the job was done.

Before returning home from my trip, the nights consisted of dreams of pictures showing nothing but tail feathers. However, upon developing the films, the ALBADA FINDER was found to have done its job and, although a few wings were clipped, no birds were missed. In all, seventy-two pictures were taken, from which the accompanying series were compiled. Many others were satisfactory—in some cases, better—but the gull would frequently enter the field at an angle which did not fit in with the pictures in the rest of the set.

This method of making a series is equally applicable to many other types of action studies. And such pictures are frequently saleable, as the present edi-

The Story Behind The Picture

BOB GOLBY

MUSICAL COMEDY with Walter Huston doesn't sound exactly right. I'll admit it had me guessing—but, nevertheless, that was a fact, and it fell to my lot to get some characteristic action portraits of Mr. Huston as one of the early Dutch martinets who governed little old New York in its infancy.

As with most theater jobs, time was of the essence. The first shots would have to be both quick and right. The decision to take was made shortly before noon, and the pictures had to be taken at the performance that evening. This meant that I had to immediately go about getting the proper location in the theater, for without it the rest would be pure waste motion. Then, I had to go to the performance "cold" to "shoot" the man with the wooden leg.

Thanks to the whole-hearted cooperation of the press department of the production, *Knickerbocker Holiday*, I was able to obtain the desired location for the job—the first row center in the orchestra. Since portraits were requested, nearness to the actors was essential. The more centrally located my position, the greater the evenness of lighting on face and features, thereby minimizing the possibility of harsh shadows and phantom wrinkles caused frequently by the trickery of the lights.

Now I felt pretty well set. The only thing I had left to do was to choose and prepare my equipment. From my long theater experience this has become second nature. As usual, the CONTAX, because of its dependability, versatility, interchangeable lenses, and compactness, would accompany me. For the action portraits I selected the one and only lens I know for this purpose in the theater—the SONNAR f/2.8 18 cm Lens. Due to its great magnification, I also included a tripod and cable release to prevent any vibration and unnecessary movement of the camera, which, of course, would be greatly accentuated on the film. The Universal View Finder was also included, as it is the only view finder that focuses the image full size exactly as it is seen and permits the making of necessary parallax adjustments with close shots. Since the lighting of the production was unknown to me, I played safe by loading with an ultra speed film. Well, now I'm set . . . so, bring on your theatre!

At curtain time I was ready in my seat with a lens shade on the SONNAR and the CONTAX on a tripod ready to shoot. The idea was to follow old "peg-leg" about the stage with the CONTAX and secure portrait

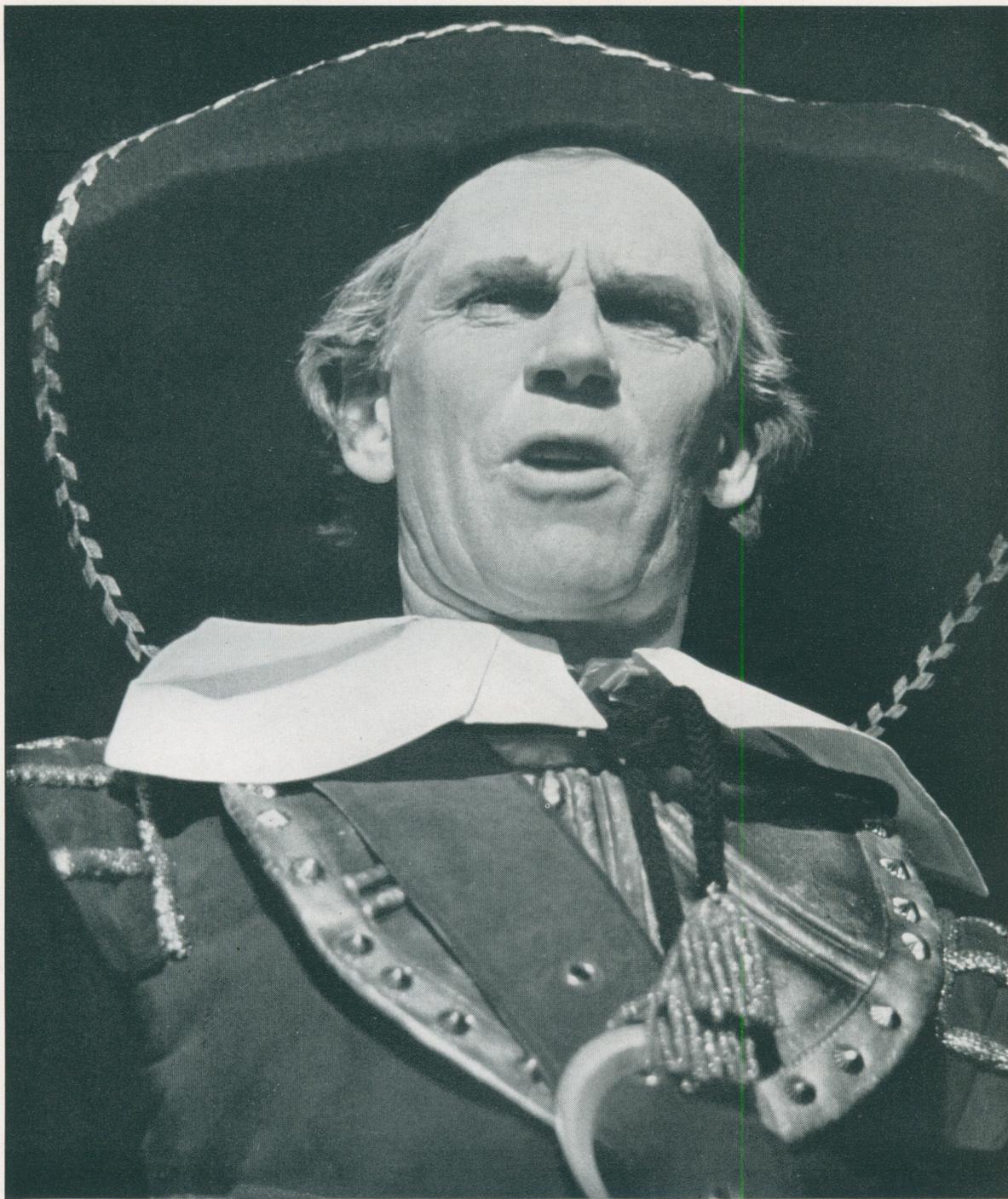
shots of him in action. This meant that before shooting the focusing must be carefully done, the necessary parallax adjustment of the view finder must be made, and the field of view must be carefully framed. Lighting conditions called for a shutter speed of 1/50th second with the lens wide open, which meant that focusing must be critical because of the restricted depth of field at this aperture.

In the theatre, the lighting, at best is never even but always somewhat spotty with multicolored beams of different intensities and brilliance. As always, I determined the actinic brightness only from that portion which fell on that "certain party" I was to photograph. The other actors as well as the background were purely secondary on this particular occasion, for I was "gaming" solely for closeups and those to be as large as my 18 cm SONNAR could bring.

After one hour and a half of a delightful performance, I had followed and "shot" my man some three dozen times. Then, towards the end of the final act, Mr. Huston appeared in imposing regalia, wearing a tremendous sombrero with braided brim. What a picture! But, would he come nearer to the audience? I waited patiently, every second seeming like an eternity, when out of a clear sky the orchestra started playing and "old silver leg" stepped forward to sing under the spotlight. With my lens focussed sharply on him at a distance of about ten feet I made the necessary parallax adjustment to the viewfinder. At 1/50th second with the SONNAR wide open, I waited patiently for the desired expression and then managed to "snap" him four times. Two horizontals and two verticals, all four pictures beauties, but the vertical pictures were more powerful in composition—a necessary characteristic of the man and the one finally chosen after many minutes of deliberation had caught that spontaneous expression which was such a part of him. A shot that was only made possible by my CONTAX.

A fine grain developer, basically a combination of paraphenylenediamine and glycin working well from 70° to 73° F., was used to keep the grain as small as possible.

A paper of the greatest possible tone scale commensurate with the negative was used in order to produce the desired warmth and softness in portraiture. The print reproduced opposite was made on an 8 x 10 chloro-bromide paper double weight and glossy but not ferrotyped.



Walter Huston in "Knickerbocker Holiday"

BOB GOLBY

*Reproduced by courtesy of LIFE
CONTAX with SONNAR f/2.8 18 cm Lens; exposure 1/50th second at f/2.8*



SUPER IKONTA B; exposure 1/50 second at f/2.8



SUPER IKONTA B;
exposure 1/25th second at f/2.8

Pictures After Dark

M. U. WALLACH

(Continued from the February Issue)

THE NIGHT photographer must carefully select the particular type of film for his work from among the many films manufactured today. An up-to-date list will include three medium-speed films, three fast, and one ultra speed for the CONTAX alone. In the B2 or 120 size, fitting the SUPER IKONTA B, there are one medium speed, three fast, and one extra fast.

Those interested in conducting numerous series of experiments with all of these twelve films will very likely find that two, or possibly three, will have sufficient latitude for almost any reasonable subject matter that will come within the scope of night photography. Medium-speed films cannot be used for weakly-lighted subjects, and the ultra-speed films, because of their tendency for grain, should only be used when required because of very fast motion in the subject

or extremely weak lighting conditions.

After having used practically every fast and super-speed film available during the past few years, conducting hundreds of speed and development tests with these films, I offer the table on page 59 for the selection and exposure of film for night photography with the CONTAX and SUPER IKONTA B. This table is not as complicated as it may seem; a brief study of it with some experimentation under working conditions, of which you should keep notes, will enable you to make surprisingly accurate exposures at night.

Agfa Ultra Speed Panchromatic Film is *only* recommended for exceedingly poor light. Most enlargements made from Ultra Speed negatives will show too much grain. When it is absolutely necessary to "get the picture," Ultra Speed Pan should be used. Remember,

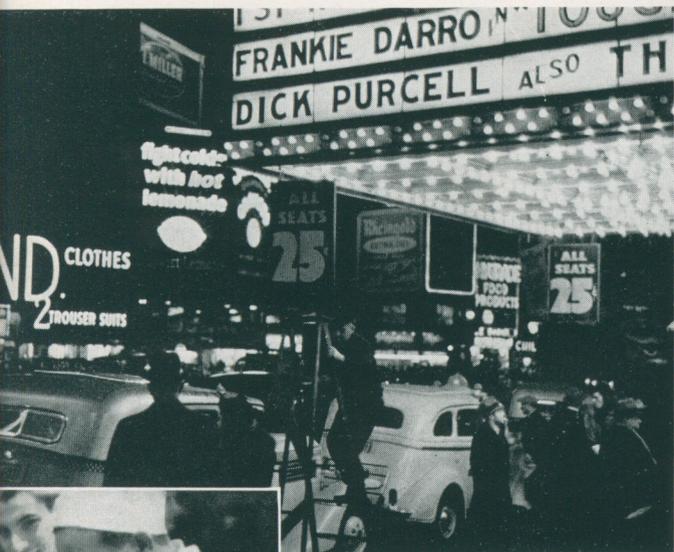


All photographs by

M. U. WALLACH

with CONTAX and

SUPER IKONTA B



CONTAX with SONNAR
f/1.5 lens;
exposure 1/50th second at f/1.5



CONTAX with SONNAR
f/1.5 lens;
exposure 1/25th second at f/1.5

however, that big enlargements will generally not be satisfactory.

It is my experience that Agfa Superpan Supreme is equal in speed in strong illumination to Eastman Super XX, although I must admit that there are many opinions which differ on this point. When used in brilliant light where the maximum exposures as given in the table will range from 1/10th to 1/50th second, Eastman Plus X will give beautiful results. This fine-grained emulsion can be given prolonged development without materially increasing the grain structure. For all around use, however, the Agfa Superpan Supreme will probably be the most satisfactory. It has remarkable latitude and can be considerably underexposed, making it particularly adaptable for Pictures After Dark. Its high contrast makes it particularly advantageous in photographing night subjects. The softer



CONTAX with SONNAR f/1.5 lens;
exposure 1/50th second at f/2

films have a tendency to block the highlights, destroy tone values, and make enlarging a difficult task. This desirable contrast will also be found in the Agfa Superpan Press for the SUPER IKONTA B. These recommendations, however, apply only to subjects photographed at night outdoors or on a stage or night-club floor.

Although contrast is required for most night pictures, care should be taken not to overdevelop the film. The contrast then would undoubtedly become excessive, resulting in intense blacks and chalky whites in the enlargements. Most shadow detail will be missing, and your pictures will definitely lack that professional touch.

It is neither feasible nor advisable to carry different types of film and load your camera on the spur of the moment. Try one or two of the types suggested and let your results be your guide. If you find what you like, whether I like it or not, then stick like glue to it and use it constantly. Do not make the mistake of changing from one emulsion to another or substitute every new film as it appears on the market. This practice will soon confuse you and your results will not be worth the effort.

Generally, meters cannot be successfully employed to determine the exposure (*Please turn to page 59*)

Pictures from the Empire State

DAVID FINCLAIR

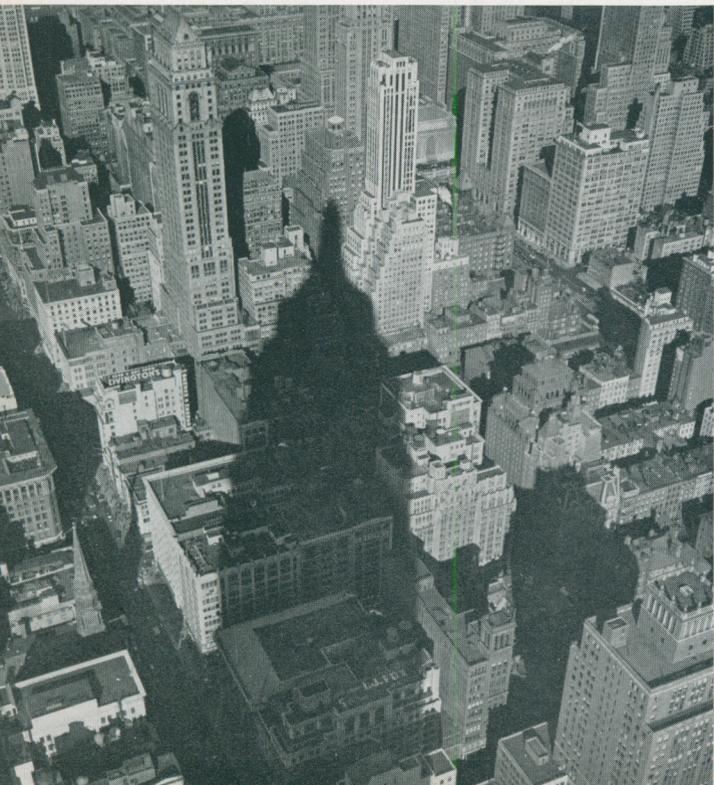
THE EMPIRE STATE Observatories are very often the stage of many shots that you and I see on the movie screen as part of the Newsreels and in the rotogravure pages of the newspapers. The camera men, still and motion picture, in their efforts to cover the News of the World, go everywhere. Assignments frequently take them, with all their paraphernalia, to the 86th floor of the Empire State building, where the lower Observatory is located, and to the top of the tower.

Visitors to America in general, and the City of New York in particular, who are "news"—such as dignitaries from other parts of the Globe, great figures in the political world of today, artists, glamorous movie stars, etc.—seldom fail to visit the Tower in order to "see" New York.

Usually, the news camera men are tipped off far in advance that such and such a person of prominence will visit the Tower, or such and such an event, having what is called news value, will take place; and they come up to the Observatory hours ahead of time and, having set up their elaborate equipment, settle down to patient waiting for the "arrival." Sometimes, they wait in vain.

A news camera man from one of the leading motion picture companies had an assignment to photograph the ill-fated Zeppelin "Hindenburg," while flying over New York on the way to Lakehurst, in such fashion that the picture would show the City of New York,

The giant casts his shadow



the skyscraper lines, and the "Graf" hovering over the City. He came up to the Tower at 5:00 o'clock in the morning. When the "Graf" finally showed up around 10:00 A.M., fog and haze completely concealed the skyscrapers and, naturally, the rest of the City, so the fellow had to return home without the "bacon." As far as I know, such a picture, unfortunately, had never been made.

But, the professional picture makers are not the only ones who come to the Tower. Virtually thousands—and I do not exaggerate—of amateur photographers, equipped with all kinds of cameras and gadgets ranging from the lowly box camera to the lordly CONTAX, come here to "perpetuate" the amazing man-made panorama that is New York.

I am watching the ever-changing kaleidoscope through the eagle eyes of my two trusty cameras—the SUPER IKONTA B and the sturdy IKOFLEX. For the last five years, I have been taking photographs of New York from the height of a thousand feet in all kinds of weather, and that is why I am taking the liberty of advising my fellow professional workers and amateurs as to the "how" and "why."

Although the skyline of New York, in all four directions—North, East, South and West, is undoubtedly beautiful and inspiring in all kinds of weather (dense fog excepted), sunny, clear weather, when the sky is (dark) blue and white clouds majestically sail over the horizon, is to be preferred if extreme distance of forty or fifty miles is to be recorded.

The views easiest to photograph, as you can well understand, are those looking North, Northeast, and Northwest from the Observatory. The best time of the day is from 11:00 to 3:00 o'clock in the Winter and 9:00 to 6:00 o'clock in the Summer. East and West views are not always clear, even on the sunniest of days with the bluest of skies. The wind direction, as well as its velocity, begins to play a very important part in picture taking as you keep pointing the lens of your camera more and more towards the South. Only a southwest, or southeast, wind of fifty to sixty mile velocity will clear the atmosphere sufficiently to secure a clear, sharp photograph of the extreme distance in these two directions. Here an R-10 light red filter is indispensable.

The Southern view, with the skyscrapers of the financial district in the center, the bridges—Brooklyn, Manhattan and Williamsburg—to the left, the Statue of Liberty and Ellis Island to the right, and Staten



Above Right: *Alan Fisher, Staff Photographer; N. Y. World-Telegram, shooting their special box camera fitted with 70 cm ZEISS TRIPLET f/5 lens.*

All photographs by
 DAVID FINCLAIR
with

CONTAX and SUPER IKONTA B



Island in the far distance, in my opinion the most picturesque part of the Island of Manhattan, presents a very difficult photographic problem indeed. Only three or four times in the five years I have taken photographs on the Empire State Observatory—and I am there every day—could I secure a clear photograph in this direction; and I believe it to be the only one in existence. Mist, particles of smoke and haze greatly intensified by the direct rays of the sun (you are practically shooting into it), I can freely say, are always present, and only on rare occasions will a straight, south wind of a sixty mile, or more, velocity clear the atmosphere sufficiently for a good photograph. You can photograph in this direction from about 8:30 to 9:00 o'clock in the morning only, i.e., before the sun is too high. At this time of the morning, and only at this time, the skyscrapers

are lit by the sun from the front. Later, you can get only a silhouette and no background beyond the skyscrapers, for, as I stated previously, you are shooting directly into the sun.

Needless to say, a deep lens hood, preferably of the collapsible type with a rectangular opening supplied for the CONTAX is indispensable, and I cannot stress strongly enough its absolute necessity. Again the light red R-10 filter and, naturally, panchromatic films or plates, must be used. You can also secure good results on pan films with either the G-2 medium yellow or the G-4 orange depending on what your ultimate goal is, as slight over-correction with the R-10 filter is to be expected. If you are a pictorialist, you may even prefer slight atmospheric haze, and, then a good orthochromatic film and light yellow (*Please turn to page 58*)

The Formula for X-33

LE ROY ROSELIEVE*

THE TREND in fine-grain developers has been toward the production of a type which would perform efficiently with the many emulsions available today under various conditions of temperature and climate. Although such developers have already been made available, working satisfactorily with certain emulsions under ideal conditions, they have not proved capable of working uniformly well with all types of films available under varying conditions. In fact, some of these fine-grain developers have limitations in performance which speedily become clearly obvious to the user.

There has been a real need for a fine-grain developer which would embody all the necessary features enumerated, most of which are rarely found together in the commonly-known developers.

1. Ease in mixing without the use of extremely hot or boiling water and subsequent cooling and filtration.
2. The use of developing agents which do not have strong toxic or high staining qualities and are comparatively stable under normal storage conditions.
3. A developing solution that will not readily oxidize through exposure to air or repeated use.
4. An ability to produce uniform results and fine grain with various emulsions at varying temperatures.
5. The capacity to give satisfactory results with over or underexposure through changes in the time of development.
6. Freedom from fog with good gradation from highlights to shadows.
7. A neutral gray-black image when viewed by transmitted light.

Developer formula X-33 will meet these requirements in every respect, as has been discovered by the many who have used it in its prepared form for some time.

Realizing, however, that many using a prepared

*Director of Research: Fink-Roselieve Co., New York, N. Y.

Haying Time

LE ROY ROSELIEVE



developer like to know of its composition and others for reasons of economy prefer to mix their own, the formula for X-33 and a brief description of its composition and action is given here. It contains a new developing agent which is worthy of comment. Diotol† is derived from a combination of known developing agents after extensive experimentation. Its chemical stability is among the highest of any developing agent. Its chemical composition lends itself particularly to work in combination with monomethyl-paraminophenol sulphate (Metol) and Glycin; in fact, it cannot be used alone but must be used in association with these other two in the proper balanced combination. When mixed as a developer with these two well-known agents, it produces a solution which will not readily oxidize, at the same time acting as a preservative against oxidation for the other two developing agents. Another feature is found in the fact that its presence tends to prevent high swelling of the emulsion at temperatures above 65° F.

No special precautions are required when film is developed in Formula X-33. It will work equally well with all available emulsions at temperatures ranging from 65° to 85° F. The results obtained at even very high temperatures are of such good quality as to bear favorable comparison with films developed at normal temperatures. This makes Formula X-33 a highly-desirable developer for use during warm weather and in the tropics. Negatives developed in this formula at normal temperatures require no more than rinsing for a minute or two in running water before fixation. A short stop bath is only required when the temperature of the developing solution is above 78° F. However, it is necessary that a good, efficient hardening fixing bath be used at all times, *the temperature of which should not exceed 80° F.* After complete fixation, the film should be washed in cool, running water for the normal time and dried in the customary manner.

Films should be exposed at their regularly rated speeds, preferably with the aid of a reliable photoelectric exposure meter, for it is only with normal exposure that the best possible results can be expected. Satisfactory results may be had, however, with considerable under or overexposure by decreasing or increasing the time of development as the case may be. Negatives developed in this formula are brilliant and free of fog, there is a wealth of detail in the shadows, and the gradation from highlight to shadow will be

†Reg. U. S. Pat. Office.



The
Open Road
by
LE ROY ROSELIEVE
SUPER IKONTA B;
Exposure 1/100th
second at f/8
R-10 Filter

excellent. A variety of densities and contrasts can be easily obtained to suit the individual requirements of the user. The times of development as given below is computed to produce a gamma of 0.8.

FORMULA X-33

Water (90° F.)	800 c.c.	26 ozs.
Diotol*	8 gms.	120 grs.
Monotol*	5.5 gms.	82 grs.
Sodium Sulphite (Anhydrous)	78 gms.	2¾ ozs.
Glycin	1.5 gms.	22 grs.
Sodium Phosphate (Tribasic)	3 gms.	45 grs.
Potassium Bromide, U.S.P.	0.5 gms.	7½ grs.
Add cold water to	1000 c.c.	32 ozs.

The chemicals must be mixed in the order given. Each should be thoroughly dissolved before the next is added. The developer may be used at once, no pre-aging being required. While developing, the film must be agitated about every two minutes to prevent streaks or uneven development.

TIME & TEMPERATURE FACTORS

TEMPERATURE	GROUP I	GROUP II	GROUP III	GROUP IV
65° F.	16	18	19	23
70° F.	13	15	16	20
75° F.	10	12	13	17
80° F.	6½	9	10	13
85° F.	4	6	7	10

This chart indicates the time in minutes required for a gamma of 0.8 (normal contrast density). When a gamma of 0.9 or 1.0 is desired, add 10% to 15% to the developing time.

Each 32 ozs. of solution will develop twenty rolls of standard 36-exposure 35 mm film, or its equivalent in

*Reg. U. S. Pat. Office.

area or other sizes, provided the eleventh to the fifteenth rolls are given two minutes greater than the times indicated above and the sixteenth to the twentieth rolls are given four minutes more time than indicated above.

Grouping of Emulsions

- Group I**
- Agfa Finopan
- Du Pont Infra D
- DuPont Micropan
- DuPont Parpan
- Eastman Infra Red
- Eastman Panatomic
- Eastman Panatomic X
- Group II**
- Agfa F. G. Plenachrome
- Agfa Superpan Supreme
- Defender F. G. Pan
- Eastman Commercial Panchromatic
- Eastman Panatomic Portrait
- Eastman Par Speed Portrait
- Eastman Plus X Panchromatic
- Group III**
- Agfa Commercial Panchromatic
- Agfa Isopan
- Agfa Superpan Portrait
- Agfa Superpan
- Agfa Superplenachrome
- Defender H.G.S.
- Defender Pentagon
- Defender X. F. Pan
- Defender X. F. Ortho
- DuPont Superior
- Eastman Portrait Panchromatic
- Eastman S. S. Panchromatic
- Eastman S. S. Portrait A.H.
- Eastman Super X Panchromatic
- Eastman Verichrome
- W. & W. Tricolor Panchromatic
- Group IV**
- Agfa Superpan Press
- Agfa Superplenachrome Press
- Agfa Ultra Speed Panchromatic
- Eastman Super Panchro Press
- Eastman Super XX Panchromatic
- DuPont XL Panchromatic

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:

- TONI FRISSELL ONE-MAN SHOW
- March 1st to 23rd
The Camera Club, New York, N. Y.
- April 1st to 22nd
Los Angeles Camera Club, Los Angeles, Calif.
DEVER TIMMONS, A.R.P.S., F.R.S.A., ONE-MAN SHOW
- March 13th to 26th
Baltimore Camera Club, Baltimore, Md.
- April 15th to 30th
University of Wisconsin Camera Club, Madison, Wisconsin
DEVER TIMMONS, A.R.P.S., F.R.S.A., FIFTEEN-PRINT LECTURE
- March 14th
Baltimore Camera Club, Baltimore, Md.
- March 20th
Lens Hawks, New Ulm, Minnesota
Tennessee Eastman Camera Club, Kingsport, Tenn.
- March 23rd
Riverside Camera Club, New York, N. Y.
- April 3rd
Charlotte Camera Club, Charlotte, N. C.
- April 18th
Huntington Photographic Society, Huntington, W. Va.
- April 21st
Coldwater Lens & Shutter Club, Coldwater, Mich.
- April 26th
Lombard Camera Club, Lombard, Ill.
JOHN MULLER ONE-MAN SHOW
- March 7th to 26th
Dept. of Photography, Brooklyn Institute of Arts & Sciences, Brooklyn, N. Y.
JOHN MULLER FIFTEEN-PRINT LECTURE
- March 20th
Teton Camera Club, Casper, Wyoming
- March 27th
Manhattan Camera Club, New York, N. Y.
- April 3rd
Lens Hawks, New Ulm, Minnesota
- April 12th
Lombard Camera Club, Lombard, Ill.
The Lensmen, Sheridan, Wyoming
BOB LEAVITT, A.R.P.S., ONE-MAN SHOW
- March 13th to 25th
Bakersfield Camera Club, Bakersfield, Calif.
REX HARDY, JR.—CARL MYDANS COMBINED SHOW
- March 15th to 31st
Appleton Camera Club, Appleton, Wisconsin
HERMAN DE WETTER ONE-MAN SHOW
- March 15th to 27th
Tennessee Eastman Camera Club, Kingsport, Tenn.
- April 1st to 30th
The University Club, Madison, Wisconsin
CLYDE BROWN ONE-MAN SHOW
- March 1st to 27th
Boise Camera Club, Boise, Idaho
- April 1st to 26th
Charles L. Manson, Wausau, Wisconsin
WALTER ENGEL ONE-MAN SHOW
- March 1st to 31st
Dayton Art Institute, Dayton, Ohio
- April 5th to 23rd
Salt Lake Camera Club, Salt Lake City, Utah
WALTER ENGEL FIFTEEN-PRINT LECTURE
- March 22nd
Lebanon Camera Clique, Lebanon, Pa.
- April 13th
Hartford County Camera Club, Hartford, Conn.
M. U. WALLACH ONE-MAN SHOW
- March 4th to 18th
Bergen Evening Record, Hackensack, N. J.
M. U. WALLACH FIFTEEN-PRINT LECTURE
- April 20th
Sinnissippi Camera Club, Rock Falls, Illinois
RICHARD WURTS ONE-MAN SHOW
- March 4th to 28th
Miniature Camera Club of New York, New York, N. Y.
- March 15th to 31st
California Camera Club, San Francisco, Calif.
HELEN T. FARRELL, A.R.P.S., ONE-MAN SHOW
- April 1st to 29th
Dayton Art Institute, Dayton, Ohio
MAURICE CARNES LA CLAIRE FIFTEEN-PRINT LECTURE
- March 24th
Coldwater Lens & Shutter Club, Coldwater, Mich.
- The General sets of prints from the Zeiss Ikon Loan Exhibition will be shown according to the following schedule for the next few months:
- March 1st to 18th
Boston Camera Exchange, 44 Bromfield St., Boston, Mass.
Eastman Kodak Stores, Inc., 38 Bromfield St., Boston, Mass.
- Ralph Harris & Co., 1252 Massachusetts Ave., Cambridge, Mass.
Ralph Harris & Co., 47 Bromfield St., Boston, Mass.
Andrew J. Lloyd Co., 300 Washington St., Boston, Mass.
Andrew J. Lloyd Co., 396 Boylston St., Boston, Mass.
Pinkham & Smith Co., 292 Boylston St., Boston, Mass.
Pinkham & Smith Co., 15 Bromfield St., Boston, Mass.
Claus Gellotte, Inc., 1290 Massachusetts Ave., Cambridge, Mass.
- March 1st to 25th
Ray Davis, Carlsbad, New Mexico
- March 1st to 31st
Downtown Athletic Club, New York, N. Y.
- March 6th to 18th
Fuller & d'Albert, Inc., 815 Tenth St., N.W., Washington, D. C.
Wells-Smith Radio Corp., 71 East Adams St., Chicago, Ill.
Fotoeract, 47 Battery Park Ave., Asheville, N. C.
The Lensmen, Sheridan, Wyoming
- March 6th to 20th
Capital Camera Exchange, Inc., 1003 Pennsylvania Ave., N.W., Washington, D. C.
- March 6th to April 1st
Photo Service Shop, 1 Division Ave. North, Grand Rapids, Mich.
Myhre Studio, Luverne, Minnesota
- March 6th to 25th
Chicago Camera Co., 2322 So. Michigan Ave., Chicago, Ill.
- March 13th to 18th
The Junior Lensmen, New York, N. Y.
- March 13th to 25th
Vermont Academy, Saxton River, Vermont
Buell-Kraft Studio, 52 West Third St., Mansfield, Ohio
LaSalle Camera Co., 133 W. Jackson Blvd., Chicago, Ill.
Stokes Photo Supplies, Inc., 255 Fulton Ave., Hempstead, N. Y.
Carl K. Frey, 247 Genesee St., Utica, N. Y.
Mortimer H. Fogel, 118 Liberty St., New York, N. Y.
James Lett Company, 225 N. Second St., Harrisburgh, Pa.
- March 13th to April 1st
Northern Photo Supply Co., 521 Second Ave. South, Minneapolis, Minn.
- March 13th to April 10th
Henry Dyer Burrage, 670 Congress St., Portland, Maine
- March 20th to April 1st
Klein & Goodman, 18 So. Tenth St., Philadelphia, Pa.
Meloy Bros. Inc., 13-15 W. Broadway, Shelbyville, Ind.
England Drug Co., Main at Park Ave., Alliance, Ohio
Schaeffer Jewelry Co., 15 Commerce St., Montgomery, Ala.
Tropical Camera Stores, 123 Second St., N.E., Miami, Florida
- March 20th to April 8th
Poling's Photographic Supply, 226 N. Mechanic St., Cumberland, Md.
Zulandt's, 7th and Main Streets, Zanesville, Ohio
- March 20th to April 15th
Boyd & Breeding Studio, 207 N. Dixon St., Gainesville, Texas
- March 22nd
Lombard Camera Club, Lombard, Illinois
- March 23rd to 31st
Dayton Power & Light Camera Club, Dayton, Ohio
- March 27th to April 1st
Union County Camera Club, Elizabeth, N. J.
- March 27th to April 8th
Jenkins & Co., 726 Main St., Richmond, Indiana
Kelly Studios, 14 East 10th St., Erie, Pa.
- March 27th to April 22nd
W. Schiller & Co., 1109 Locust St., St. Louis, Mo.
- March 27th to May 20th
Royal H. Carlock, 9133 Penn. Ave., N.W., Washington, D. C.
- April 1st to 15th
Sheaffer Pen Co. Camera Club, Fort Madison, Iowa
- April 3rd to 15th
Radcliffe Drug Co., Hamilton, Ohio
Fuller & d'Albert, Inc., 815 Tenth St., N.W., Washington, D. C.
Wells-Smith Radio Corp., 71 East Adams St., Chicago, Ill.
Kay's Photo & Optical Co., 212 North 7th St., St. Louis, Mo.
Pelham Photo Copy Service, 223 E. Jackson St., Muncie, Ind.
- April 3rd to 22nd
Chicago Camera Company, 2322 S. Michigan Ave., Chicago, Ill.
Northern Photo Supply Co., 521 Second Ave. South, Minneapolis, Minn.
- April 3rd to 29th
Photo Service Shop, 1 Division Ave. North, Grand Rapids, Mich.
- April 10th to 15th
The Boston Store, Herzfeld-Phillipson Co., Milwaukee, Wisconsin
- April 10th to 22nd
Vermont Academy, Saxton River, Vermont
Darmstaetter's, 35-37 No. Queen St., Lancaster, Pa.
Lorain Camera Club, Lorain, Ohio
Stokes Photo Supplies, Inc., 255 Fulton Ave., Hempstead, N. Y.
Smith-Surrey, Inc., 129 Clinton Ave. South, Rochester, N. Y.
- April 10th to May 6th
Myhre Studio, Luverne, Minnesota
- April 17th to 29th
Klein & Goodman, 18 So. Tenth St., Philadelphia, Pa.
Meloy Bros. Inc., 13-15 W. Broadway, Shelbyville, Ind.
Schaeffer Jewelry Co., 15 Commerce St., Montgomery, Ala.
J. P. Bell Company, Inc., Lynchburg, Virginia
Fritz & Hawley, Inc., 816 Chapel St., New Haven, Conn.

(Please turn to page 58 for rest of schedule)

Notes & News

THE FIFTH ANNUAL EXHIBITION

The final showing of the Fifth Annual ZEISS IKON Exhibition under the sponsorship of CARL ZEISS, INC., as now planned, will be in Room 14 of the Palmer House, Chicago, from Monday to Saturday, March 27th to April 1st, inclusive, with the exhibition open on weekdays from 10 a.m. to 9 p.m. and on Saturday from 10 a.m. to 5 p.m. This year the exhibition consists of one hundred prints selected from among the more than four thousand entered by leading judges in the fields of pictorial, press and commercial, and scientific and industrial photography. In addition, there will be a special invitation section of two hundred prints by leading American amateur and professional photographers.

In selecting the 100-print competition section, all of which are marked in the lower right corner to signify the section in which they were chosen by the judges for hanging, three prize winners and three honorable mentions in each section were likewise selected by the judges for that section. As in New York and Boston, these eighteen prints awarded prizes by the judges will be subject to a special balloting by those reviewing the exhibition in Chicago, the winner of the voting in the three cities to receive a Grand Prize of \$100.00.

After its exhibition in Chicago, the 100-print selection of the judges in the three classifications will be available for loan to camera clubs, museums, colleges, and other non-commercial organizations for publication exhibition. Reservations for its showing can be made by letting us know when it will be needed, the length of time it will be wanted for exhibition, the place where it will be exhibited, and the name of the organization that will be sponsoring its exhibition. While there are still a few open dates for this spring and not many have been made for next fall and winter, it is suggested that alternate dates be given when writing for a reservation in the event that the one first requested is already engaged.

The Fifth Annual ZEISS IKON Exhibition has received unusually favorable mention during its showing in New York and Boston, the usual comment being that the new method of selection has resulted in much greater variety and interest than ever before. There is no question but that this brilliant collection of prints by outstanding American workers shows the use of all types and sizes of cameras in practically every phase and field of American life. Those of our readers who reside in or near Chicago should see the Fifth Annual when it is shown at the Palmer House from the 27th of March to the 1st of April. And those residing elsewhere can see it by asking their local camera club or museum to arrange for its public showing in their community.

THE CONTAMETER

This is one accessory that will be found useful in securing good pictures both indoors and out. Last month in mentioning the Micrometer Focusing Mount we commented on the fact that many of us relieve that taking-pictures ache during the winter with table-top photography. This month, to show us that our words were not in vain, Mr. Nelson Page wins the first prize award in our national monthly competition with a picture secured with his SUPER IKONTA B and the CONTAMETER. And next summer Mr. Page will find his CONTAMETER just as useful in getting close-up, action shots out of doors.

Basically, the CONTAMETER, which is available for the CONTAX and other ZEISS IKON 35 mm Cameras as well as

the SUPER IKONTA B, makes use of the well-known ZEISS PROXAR Lenses in permitting us to bring the camera close to the subject for large images without the use of extension tubes. But, in addition, there is included a supplementary combined range finder and view finder with three prisms matching the focusing distances of the PROXARS. The supplementary finder has two feet for the finder clip of the camera to take care of parallax, one of which is marked for two of the distances and the other for the third. In use, the PROXAR for the distance selected is placed on the camera lens which is kept focused at infinity at all times. The foot marked with the same identifying number is slid into the camera clip, and the prism marked with the same number is slipped into the collar in the supplementary finder. Without disturbing the adjustment of the camera lens at infinity, the subject is sighted through the eye piece of the supplementary finder, the camera is moved back and forth until the two images superimpose, then everything seen through the same eye piece will be recorded on the negative.

In use, the CONTAMETER will be found far less complicated than any description. For securing close-up action shots, even with the camera hand-held, it will be found ideal. With it the CONTAX and other ZEISS IKON 35mm Cameras and the SUPER IKONTA B become autofocusing cameras from about eight inches to infinity, giving a tremendous range of possibilities in their use and application. But, to really appreciate the possibilities inherent in the CONTAMETER, ask your ZEISS Dealer to show you one.

THE NEW CONTAX SPOOLS

Announced in the January Issue of ZEISS MAGAZINE, the immediate demand for the new CONTAX Spools was so great that our stock was exhausted in a few days. They are now again in stock and may be obtained through your ZEISS Dealer. Their use greatly simplifies the loading of the daylight-loading spools now available for the CONTAX and other ZEISS IKON 35 mm Cameras. Containing the usual slots through which the film may be threaded if desired, a third slot with a pin on the inside at the lower portion of the spool core permits instantaneous insertion or release of the film. For speed and ease in loading the new spool is preferable. The cost is \$.40 and your ZEISS Dealer will be pleased to demonstrate one to you.

THE MONTHLY COMPETITIONS

Much pleasure in photography, after we have progressed a short ways in camera operation, is found in matching our skill against that of others in various competitions. Here the national monthly competitions of ZEISS MAGAZINE will be found of value. For, in addition to the substantial merchandise awards, there is the fun of competition and the inevitable improvement that comes from competitive participation. No complications are involved in our monthly competitions. The rules are easily understood, and the competitions run on continuously, the closing date for each being the first of the month and the next beginning immediately thereafter. Judging is on the basis of technical quality and pictorial merit. There are three merchandise awards each month with three grand prize awards every six months. Ask your ZEISS Dealer for a copy of the competition rules. If he does not have any, we will be pleased to send them on request.

THE MONTHLY COMPETITION

(Continued from page 42) the difference in textures between the cloth and the fruit. While the cloth forms an important part, it has no opportunity to seriously compete. The placing of the cluster on a diagonal line gives interest and emphasis to the whole composition.

Big Sister—Little Sister by John Funaro wins the second prize award. Taken with the MAXIMAR B and TESSAR f/4.5 13.5 cm Lens and Distar No. 2, an exposure of f/11 at bulb was given with illumination furnished by a single photo-flash bulb in a reflector. The main appeal of this picture lies in its human interest. The expression on the face of the older child, showing the love she has for the new arrival and her pride and satisfaction in being allowed to hold little sister for this important picture, is clearly depicted in this instantaneous flash. While the picture leaves nothing to be desired from this point of view, we feel that its spacing could have been so arranged that better use could have been made of the upper right hand corner which now seems a bit empty.

John Muller receives third prize for *Snow Dunes*, taken with his SUPER IKONTA B and TESSAR f/2.8 8 cm Lens. The exposure was 1/50th second at f/22 with the GR-55 yellow-green filter. In line with all his work, Mr. Muller has done a splendid technical job. He was not only successful in shooting against the light for finer texture, but at the same

time he managed to retain fine shadow detail which, while it may be lost in the reproduction, is very evident in the original print. A difficult job well done.

PICTURES FROM THE EMPIRE STATE

(Continued from page 53) filter, such as G-1, will do the trick. Some striking results can be secured with the Agfa Infra-red film and filters G-3, G-4, or R-10. I would suggest an exposure of 1/50 of a second at F 4.5 in bright sunlight as a basis from which to commence. There is no difference in exposure as far as those three filters are concerned.

ZEISS IKON LOAN EXHIBITIONS

(Continued from page 56)

- April 17th to May 6th
Gordon's Drug Store, Inc., 901 Ryan St., Lake Charles, La.
- April 17th to May 20th
Ray Davis, Carlsbad, New Mexico
- April 22nd to 25th
Chattanooga Camera Club, Chattanooga, Tenn.
- April 22nd to May 10th
Kelly & Green, 514 Cumberland St., Bristol, Virginia
- April 24th to May 6th
Douglass-Edwards Camera Shop, 205 Western Ave., Joliet, Ill.
Arax Photo Supply, 388 Main St., Poughkeepsie, N. Y.
La Salle Camera Co., 133 W. Jackson Blvd., Chicago, Ill.
The Photoart House, 844 North Plankinton Ave., Milwaukee, Wisc.
James Lett Company, 225 N. Second Street, Harrisburg, Pa.
- April 24th to May 13th
Northern Photo Supply Co., 521 Second Ave. South, Minneapolis, Minn.

The Zeiss Ikon Competition

MONTHLY AWARDS

The selection of the winner in Zeiss Ikon Cameras and Accessories to the following list values;

First Prize: \$40.00 Second Prize: \$20.00 Third Prize: \$10.00

Each prize winner will also receive a certificate of award and label for attachment to the back of his own duplicate print and the winning prints will be reproduced in Zeiss Magazine.

GRAND PRIZE

Every six months the prize winning pictures in each class will be judged in a special competition; the winners in this competition will be awarded an additional prize equal to the previous award.

The awards **MUST** be ordered and delivered through a recognized Zeiss Ikon Dealer.

COMPETITION RULES

- 1. ELIGIBLE:** Any photograph taken by the entrant with a current model Zeiss Ikon Camera and Carl Zeiss Lens as shown in current Carl Zeiss, Inc., advertising literature.
- 2. PRINT SIZE:** Must be **unmounted** and not smaller than 4" x 6" nor larger than 12" by 16". Within the size limitations mentioned, entries may be either contact prints or enlargements.
- 3. DATA:** The following data must be written in ink on the back of each print entered: name and address of entrant; model and serial number (engraved inside) of camera; name, serial number, maximum aperture and focal length of lens; and the diaphragm setting, exposure speed, lighting, and filter (if any) used.
- 4. CLOSING DATE:** Prints received later than the first of the month preceding publication, will be held for the following month's competition.
- 5. LIMITATION:** No entrant may submit more than six prints in any one month.
- 6. RELEASE:** Entrants receiving an award must on request, if any persons appear in print, secure and furnish us with release on our forms signed by these persons.
- 7. PRIZE AWARD:** Entrants receiving an award may retain same as credit for not more than one year but must inform us of their intent to do so, stating the name and address of their dealer, within ten days of receipt of notification of the award.
- 8. RETURN OF PRINTS:** Due care will be taken of all prints entered and prints not receiving an award will be returned, but Carl Zeiss, Inc., cannot be responsible for any loss or damage to prints while in transit. Prints receiving an award and the negatives from which they are made become the property of Carl Zeiss, Inc., for the purpose of advertising Zeiss Ikon and Carl Zeiss equipment throughout the world.
- 9. ENLARGED NEGATIVE:** An enlarged 4" x 5" copy of the original negative, unless smaller size is requested, will be furnished to entrants receiving an award. Prints made from such an enlarged negative or from the original negative, may be entered in the maker's name only in any non-commercial photographic salon or exhibition and the maker may grant permission to those in charge of the salon to reproduce same in the salon catalog or any recognized independent photographic magazine.

Entries Should Be Sent to Carl Zeiss, Inc., 485 Fifth Avenue, New York, N. Y.

PICTURES AFTER DARK

(Continued from page 51) of pictures made after dark. In the theaters and night clubs, changes in the lighting and the tempo of the action will render the use of a meter impossible, while elsewhere the intensity will usually be too low to actuate a meter. Experience obtained by trial and error will prove to be of greater value in judging exposure.

Let us suppose that you, the reader, and I, the author, are walking along the street to-night with the hope of getting some good pictures. We will surely find some well-illuminated store windows with models posed in them. Here is excellent material to make some test exposures. With my CONTAX loaded with Superpan Supreme, I could use several different shutter speeds, depending, of course, on my lens equipment. With the SONNAR $f/1.5$ I would start with $1/100$ th second, with the SONNAR $f/2$ I would slow down to $1/50$ th second, and with the TESSAR $f/2.8$ I would have to give $1/25$ th second. After making the recommended exposure for my lens equipment, I would make another exposure at one-half this speed and another exposure at twice this speed. Surely within this wide range the exact exposure would be found. And a series of windows of varying light intensities, provided the proper exposure records were kept, would soon give a very good idea of exposure at night.

You with your SUPER IKONTA B, loaded with Eastman Super XX, would start with an exposure of $1/50$ at $f/2.8$, then $1/25$ th, and finally $1/10$ th second. The last exposure requires a great deal of care if the camera is to be hand-held. It can be done if the camera is firmly held braced against the cheek with a very slight pressure on the shutter release button.

After developing these trial shots, you will quickly learn how to judge the approximate exposure required for best results. Continue with your experimental work until you

have the lighting and exposure to the point where the setting of the shutter speed and diaphragm becomes automatic. No illuminated shop window will puzzle you after that. Every city, town, or hamlet has a shopping center or main street where some illuminated shop windows will be found. No better material for trial purposes can be had. With a complete range of lighting from poor to brilliant, these windows will assist you to become an expert within a very short time.

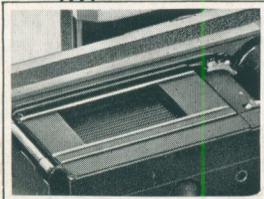
After you have made dozens of shop window pictures, you will be better trained to attempt street scenes with or without active subjects. Flashing signs are apt to confuse the beginner. The ratio of illumination, due to compact arrangement of light bulbs and the direct transmitted light, is about fifteen to one, if not higher, against the bright street illumination. The tendency is to overexpose these signs. When taking pictures of them, whether flashing or still, slight underexposure is advisable. To some degree this will eliminate blocking. Some developers containing metal make enlargement from these negatives difficult. Special formulas that will reduce this blocking to a minimum should be used. Mine will be discussed in a later installment.

Street scenes at night require careful calculation as to exposure. You are faced with real lighting problems if you want to include brightly lighted subjects as well as those in more subdued illumination. One area might be brilliant, the other dark. Under these conditions, the only procedure would be to give an exposure that would be midway that required for the darker and the lighter portions of the subject. This may sound a bit complicated but, after a few trials, you will give the correct exposure and the latitude of the film will do the rest. If the heavy and light portions are slightly out of balance, dodging while enlarging will give satisfactory results.

(To be continued in the April Issue)

CONTAX WITH SONNARS $f/1.5$ OR $f/2$ OR TESSAR $f/2.8$			
Illustration	Film	Speed Range	Diaphragm Range
Poor to fair	Agfa Ultra Speed	$1/25$ to $1/50$	$f/1.5$ to $f/2$
	Agfa Supreme	$1/10$ to $1/25$	$f/1.5$ to $f/2$
	Eastman Super XX	$1/10$ to $1/25$	$f/1.5$ to $f/2$
Good to bright	Agfa Supreme	$1/25$ to $1/125$	$f/1.5$ to $f/2.8$
	Eastman Super XX	$1/10$ to $1/125$	$f/1.5$ to $f/2$
	DuPont XL	$1/10$ to $1/125$	$f/1.5$ to $f/2$
Brilliant	Agfa Supreme	$1/25$ to $1/250$	$f/1.5$ to $f/2.8$
	Eastman Super XX	$1/25$ to $1/250$	$f/1.5$ to $f/2$
	Eastman Plus X	$1/10$ to $1/50$	$f/1.5$ to $f/2$
	DuPont XL	$1/25$ to $1/125$	$f/1.5$ to $f/2$
SUPER IKONTA B WITH TESSAR $f/2.8$			
Illustration	Film	Speed Range	Diaphragm Range
Good to bright	Agfa Superpan Press	$1/10$ to $1/50$	$f/2.8$
	Eastman Super XX	$1/10$ to $1/50$	$f/2.8$
Brilliant	Agfa Superpan Press	$1/25$ to $1/200$	$f/2.8$ to $f/4$
	Eastman Super XX	$1/25$ to $1/200$	$f/2.8$ to $f/4$
<p>These subjects could be exposed at faster shutter speed or smaller diaphragm settings if the developer recommended by the maker of the film is used with that particular film. My experience, however, has shown that with these developers satisfactory enlargements of good size cannot be had because of grain. Further, some of the developers will not be satisfactory for photography after dark because of a tendency to block the highlights.</p>			

EVERYTHING IS MODERN-



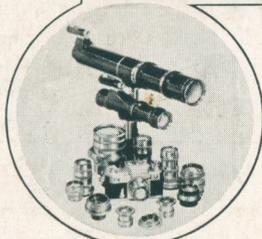
Metal focal-plane shutter and film channel.



The Contameter, an optical near-focusing device.



Bayonet mount makes interchange easy and accurate.



The 14 Zeiss Contax Lenses

BENEATH its trim modern appearance, Contax—the modern miniature camera—contains the most advanced and modern design and construction of any miniature camera. Contax is not a small-negative camera in miniature size using materials and patterns of the past—its entirely new design and construction offers many advantages and conveniences not found in any other camera. In Contax, the ninety years experience of Carl Zeiss in the manufacture of quality lenses and the seventy-five years experience of Zeiss Ikon and its predecessor companies in the manufacture of fine cameras have been combined to produce a camera with an accuracy, dependability, and ease of operation found in no other camera.



Range and view finder combined in one eye-piece.



Natural and easy two-finger operation of Contax.

ABOUT THE *Contax*

WITH Contax . . . a choice of fourteen precisely and easily interchanged Carl Zeiss Lenses . . . coupled with a durable and accurate long-base, wedge-type auto-focusing range finder combined in one eye-piece with a large-size view finder . . . a reliable metal focal-plane shutter working with split-second accuracy under any conditions of temperature and climate . . . a full selection of accessories adapting it easily for any phase and field of photography . . . and many other features which have made Contax preeminent among photographers throughout the world.

