



Exakta

THE MAGAZINE FOR EXAKTA PHOTOGRAPHERS

SPRING 1951 SOMMERFEST

Exakta

THE MAGAZINE FOR EXAKTA PHOTOGRAPHERS

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These harmonica-playing Marine Reserves are bound for a California camp and active service. Morris Gordon, *WE* Chief Photographer, shot the activation.



Last-minute orders check absorbs these three Marines, including sergeant, key figure in Gordon's picture story for *WE*. Others get set to board troop train.



Photo of card-playing Marine and buddy in rear illustrates difficult light, depth-of-field problems facing Gordon. He took the story with available light.

Photographing the Marines



BY MORRIS GORDON

Chief Photographer, *WE*, Western Electric,
and former New York newspaper photographer

It was dark when the alarm clocks went off that morning. The street lights at the corners were yellow blobs in the morning mists. In each of several hundred New Jersey homes, a man arose and started to reach for the trousers he wore at work, then remembered and donned the fatigue pants that had been stored away in moth-balls.

It was just daylight when each man went through the front door, kissed most of his family goodbye and waited for the car that would take him to Picatinny Arsenal. For this was D-Day, a new departure day for hundreds of U. S. Marine Reserves who had been called up for active duty.

Like the Marines I had to get up early, too. As chief photographer of *WE*, the magazine published by Western Electric Company, it is my job to record the lives of some 80,000 employes in the 80 company locations throughout the country. Since some of our employes were being called up that morning, I was shooting the story for the magazine.

As the key figure in my story, I had selected a 27-year-old relay inspector who had worked for our Kearny, N. J. plant for eight years and was a former Marine sergeant. I had decided to follow him and his unit through to Chicago.

So, I got up before daybreak, packed all of my equipment including an Exakta, and was waiting outside the sergeant's door when he arose. I photographed him saying goodbye to his family and leaving for the Arsenal where he joined the rest of his outfit. At the Arsenal, where the men had drilled as reserves, I covered the long wait, the "shakedown" when they lined up the length

of the building on one side and emptied everything out of their bags, the final muster when the major addressed the formation.

I photographed the men playing a final chorus of *Home, Sweet Home* on their harmonicas, the checking of orders and the boarding of the troop train that was to take them to Camp Pendleton, near San Diego, Calif. Aboard the train I shot the last waves to families as the train picked up steam, the gradual splitting up of groups of men in each car, some to sing, some to play cards, some to read, some to sit quietly thinking of home and the families left behind.

Then I shot them hitting the sack and, the next day, doing calisthenics during a stop at Marion, Ohio. All in all, the assignment posed quite a photographic problem since the light conditions were varied, sometimes extreme. Some of the shooting was done indoors, often in poor light.

Before leaving, I had anticipated the extreme variation in lighting conditions and decided to shoot the entire story with natural light. Natural light, or available light, as it is known in the profession, is not a new medium, but as old as photography itself. After almost 25 years in the daily picture press field, you would think I would be sold on flash exclusively, but almost immediately after switching to magazine industrial photography I found that I

Meditating sergeant illustrates another problem, train movement, that Gordon met. Skill, steady hands are needed to prevent blur.

Angles often make the picture. Gordon shows his press training here. Alert, he found angle in headline of paper sergeant is reading.



Photographing the Marines (cont.)

got my best results, photographically, with natural light.

Light is a tool and should be used as such. Unposed, unmanufactured pictures can be taken much more easily with available light than with flash. Subjects can be captured in their natural environment and appearance. Results are consistently good because of the realism in the pictures.

Also, artificial light, such as regular flash, strobe, incandescent, etc., falls off sharply at its maximum distance, while natural light illuminates an area more evenly while the light travels to infinity. With natural light there is detail even in the shadows, and artificial contrasts, often so disturbing in pictures taken with flash, are not introduced.

Because I decided to use available light, exposure speed immediately became a problem. Many of the shots I took were made aboard a train speeding at a rate of 50 to 80 miles



Fast exposure was needed for this shot of Marines doing calisthenics on station platform during a stop at Marion, Ohio.



This was hard to get because of dim light, depth of subject. Gordon was grateful for Exakta's fast lens, great depth of field.



Final muster of Marines is an interesting shot because Gordon took it from a low angle and included the telephone wires.

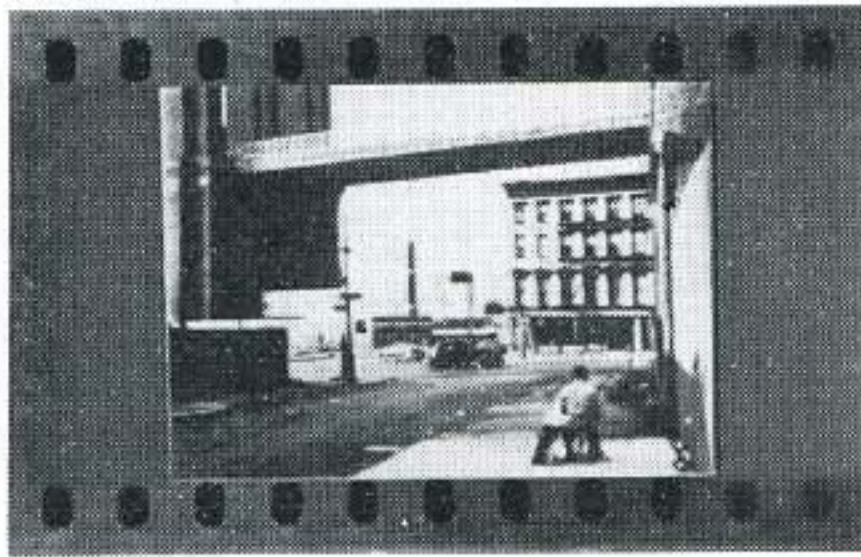
an hour. Since my exposures aboard the train ranged from 1/10 of a second at f 1.5 to 1/50 of a second at f 5.6, camera movement was always a hazard.

I had to make certain that no part of my body touched any part of the train while I was shooting candids during the 22-hour ride to Chicago. This precaution kept vibration at a minimum.

I had to work fast and furiously during the trip, shooting pictures without the men knowing that I was photographing them. In journalistic photography, one must master the art of being inconspicuous, of blending into the background.

The Exakta came in very handy for this assignment. I got a lot of shots I would otherwise have missed or that would not have been as good thanks to the Exakta's Penta Prism viewfinder. I think the Exakta will be used more and more among photojournalists as time goes on.





Blur or fuzziness in a picture often is wrongly attributed to "lack of sharpness" in a lens. Frequently the cause is failure of the photographer to hold the camera steady during the duration of the exposure, rather than a manufacturing defect.

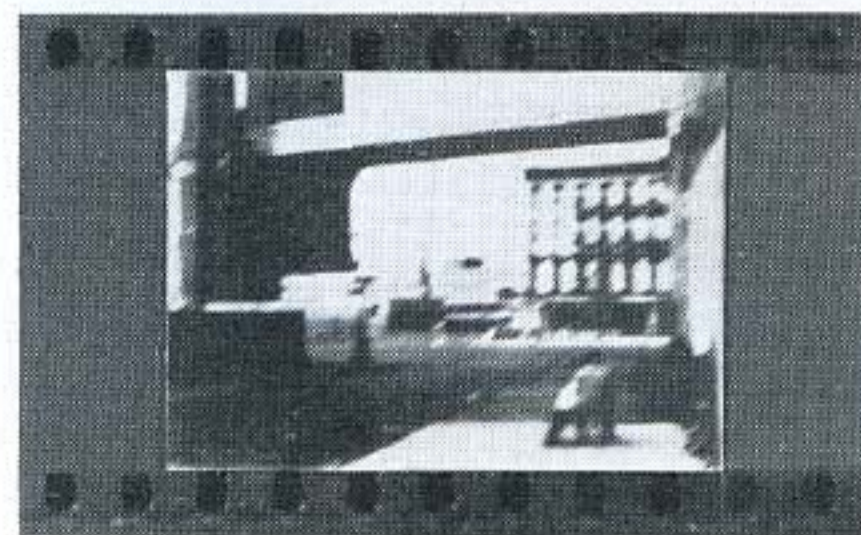
Certainly, nobody is justified in condemning any lens on the basis of a careless hand "test." Only after the camera has been set on a tripod, focused carefully on a fixed test object or chart and the shutter released by "remote control" (that is, by a cable release) can the lens have a chance to show its worth without being handicapped by the possibility that the operator may not be holding the camera steady during an exposure.

The value of a tripod test is two-fold: the photographer learns what his lens can do and it serves as a check on his ability to hold the camera rigid. Photographers vary in the latter respect. There are some who boast of being able to shoot as slow as 1/5 of a second. Most of us, however, particularly when using miniature cameras, find 1/25 or, preferably, 1/50 better insurance against blur.

Shooting at slow speeds is necessary, of course, on some occasions, such as when taking candid pictures in poor light or when a small aperture (lens stop) is needed to record great depth of field. As a general rule, however, it is advisable to use the fastest shutter speed consistent with the required lens stop for the subject.

Nevertheless, shooting at fast speeds is not insurance against camera shake. A blow-up of a hand-held shot taken at 1/100 of a second often shows camera movement. Therefore, you will find it necessary to develop your ability to hold your Exakta without movement.

To do so, first make tests to learn the slowest exposure at which you can shoot and still avoid blur from camera shake.



Start at 1/50 of a second and work down through the slower speeds until you find that you pick up blur. Your pictures must be taken with the camera hand-held, naturally, and you won't be able to judge accurately unless you enlarge them.

Once you have determined the slowest speed at which you can shoot hand-held and still avoid blur, then take the next slowest speed and practice using the following precautions. These precautions should be used at all speeds, but they are particularly applicable to slower ones.

Your Exakta should be comfortably, but firmly, held against your face. Each photographer has to work out the routine

Continued on page 14

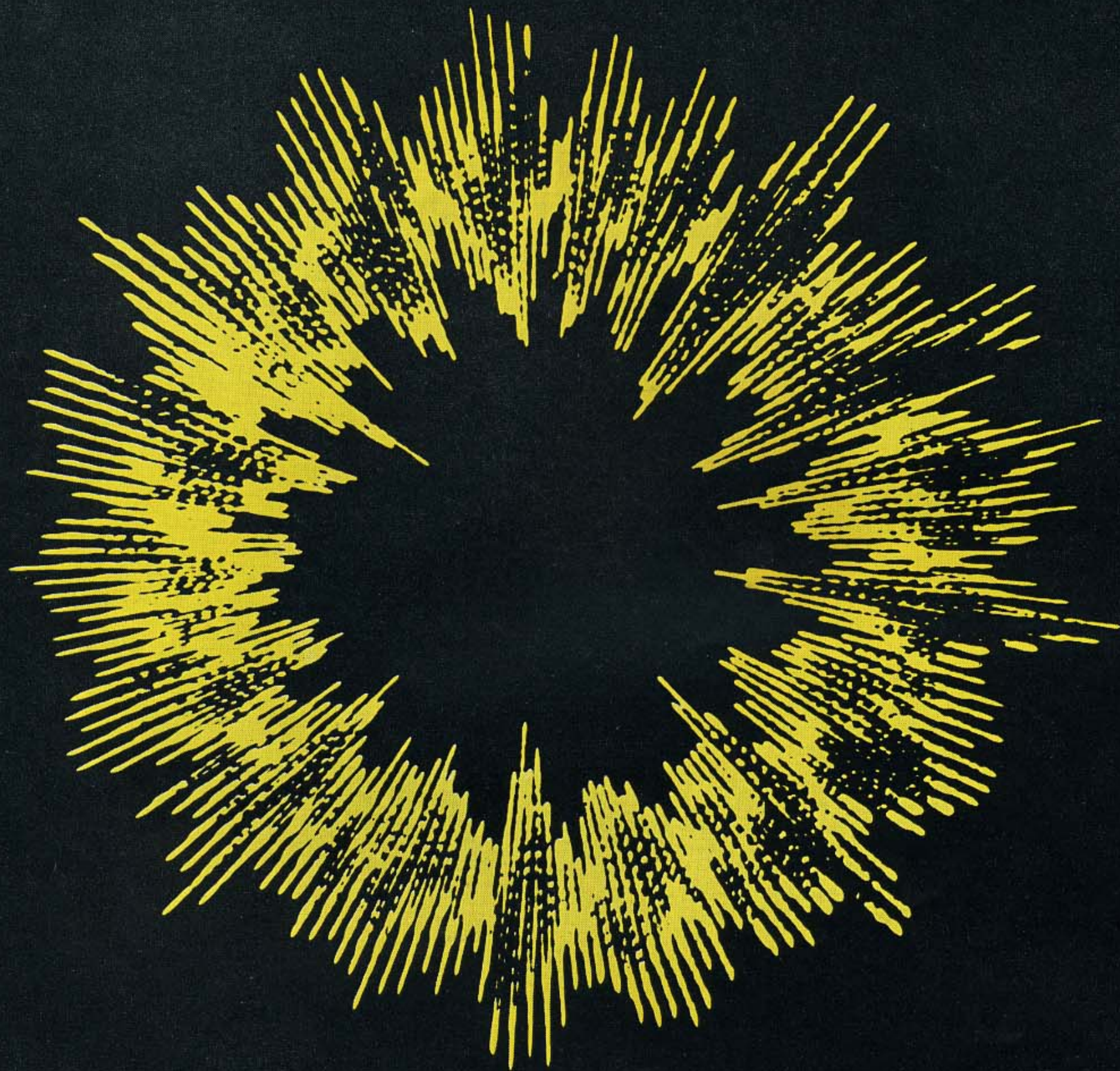
JACOB DESCHIN

Camera

Shake

Photographs by the author





H. J. FRITZSCH

Oscillographic
Photography

Life manifests itself through the motion of waves. A musical tune, a television picture, the beating of a heart—these and other activities are brought to our consciousness by waves in periodic action.

The waves in themselves are mechanical actions. Although they are not ordinarily visible to the eye—all we see is the result of the wave action, not the wave—we can translate them into electrical impulses and then make them visible. This is the purpose of oscillographic photography, one of the most fascinating types of picture taking.

Oscillograms are photographic records of electrical impulses on the viewing screen of a cathode-ray tube. The cathode-ray tube is the device used to make the electrical impulses visible to the eye. It is a special type of vacuum tube in which electrons are concentrated into a beam. This beam, electrically, magnetically or both, is directed at a specially prepared screen at one end and inside the tube. The screen becomes fluorescent at the point of impact of the electron beam and makes visible the pattern or image of the electrical impulses being studied.

There are a thousand and one uses for oscillograms and more being found every day. In medical research, oscillograms are used to measure the activity of the brain, nerves, heart and other muscles. The oscillogram has widespread use in industry, in navigation, in radar.

Radio and television engineers trace defects and faulty designs in equipment by means of such pictures. Other craftsmen like piano tuners and watchmakers make

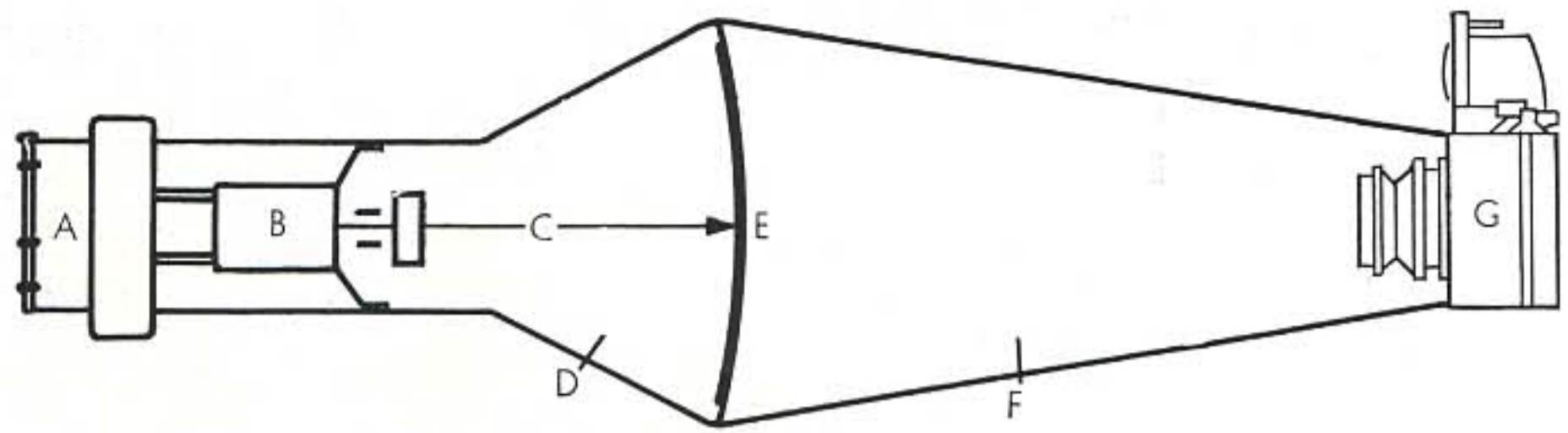


Diagram above shows set-up for oscillographic photography. Although an oscillograph is used, for simplicity only cathode-ray tube is shown. The basic set-up is: A—base of cathode-ray tube; B—cathode system of tube; C—stream of electrons; D—tube vacuum; E—viewing screen; F—paper tube or cone resting against screen and camera; G—Exakta. Paper tube eliminates extraneous light.

use of this modern device to check the accuracy of their work.

All these applications are important to the commercial world, but not to the amateur photographer, except indirectly. The amateur, however, can find in oscillographic photography one of the most intriguing types of picture taking possible with a camera. An infinite number of wave "portraits" can be taken, many of them as exciting and beautiful as actual portraits of human beings.

Waves have personality and form. Each wave is different and each represents a challenge to the photographer's imagination and technique.

Oscillograms can be taken without any difficulty and without much additional or elaborate equipment by any Exakta owner. The first thing you'll need, of course, is access to an oscillograph, the apparatus that translates the electrical impulses into fluorescent images on the cathode-ray tube screen. Buying one is impracticable, of course, but it may be possible for you to use one that belongs to a neighborhood radio-television repair man or other commercial establishment.

The 35-mm. Exakta is the ideal camera for oscillographic photography for several reasons. In addition to the fact that the film is inexpensive and 36 exposures can

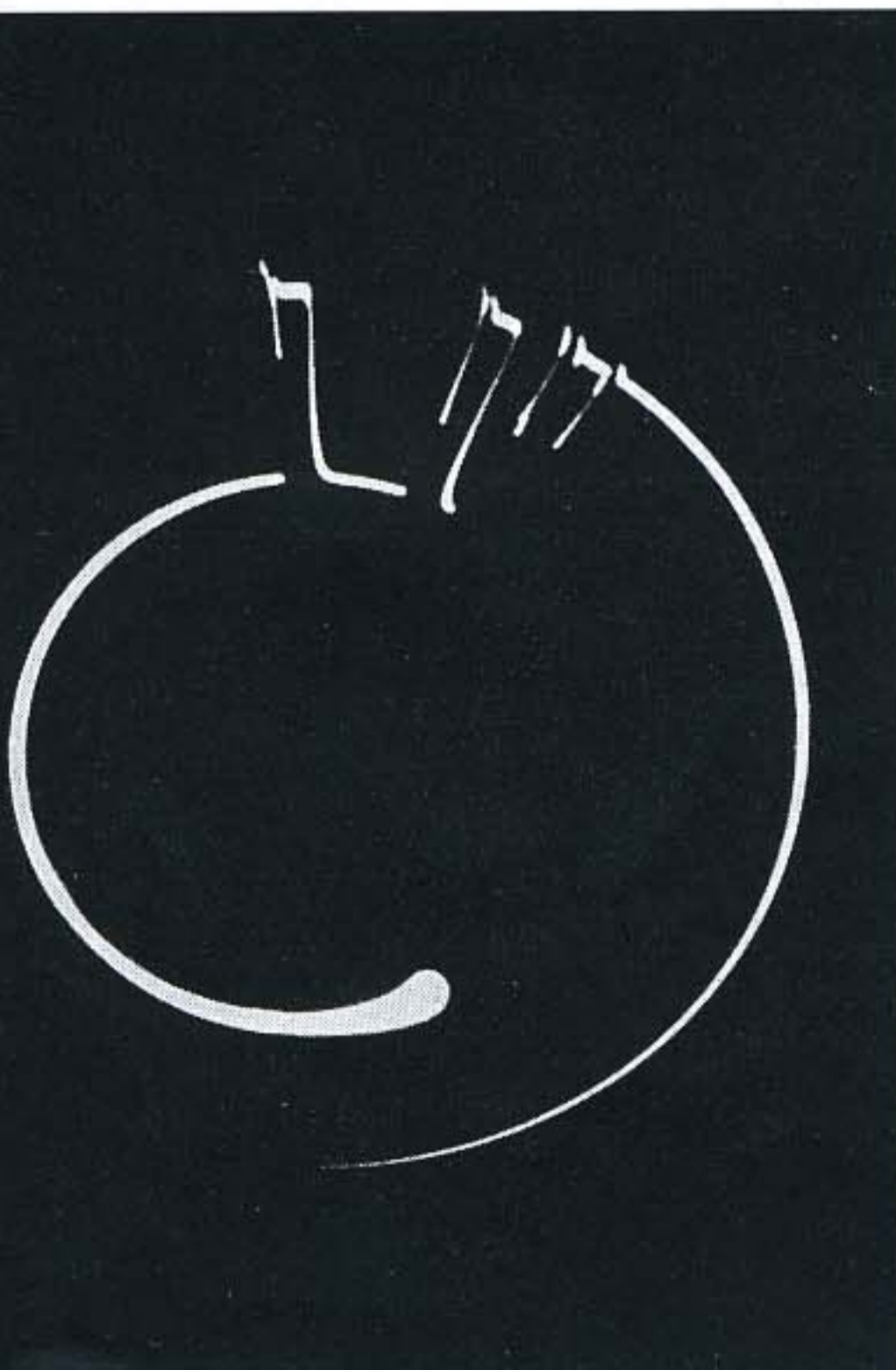
be taken on a roll, the single-lens reflex feature of the Exakta permits the process to be simplified almost to the snap-the-shutter routine.

To understand why the Exakta is the ideal camera, let's examine the problems in oscillographic photography. To begin with, there is the cathode-ray tube.

The objective, of course, is to photograph the screen as clearly as possible. This means that the camera must be close; in other words, that extension tubes must be used. All light except that coming from the screen must be excluded because reflections and side lighting degrade the image. Therefore, the camera must be linked with the screen by means of a light-tight tube that at one end covers the screen and at the other end the camera lens.

This being achieved, the problem of being able to focus, compose and see when to snap the picture arises. Oscillographic photography is impossible with a camera

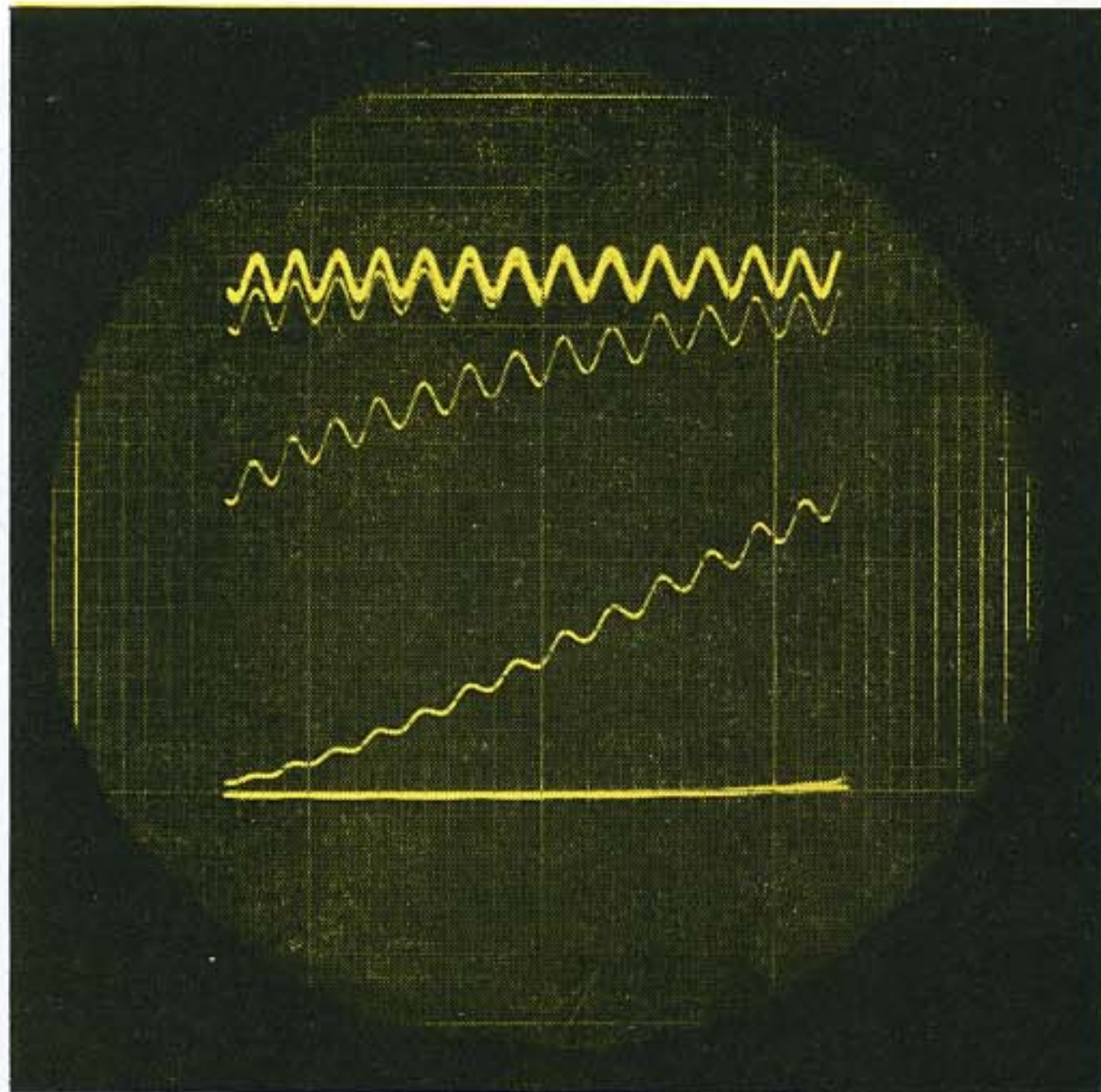
Oscillographic photography is fascinating. Any Exakta owner can take wonderful and unusual oscillographs like one at left, showing turntable vibration; below, left, showing bounce of a relay arm; center, electronic "bugs". Little extra equipment is needed.



Concentric waves of oscillogram below look like a modernistic black-and-white drawing, but they are more than just a pretty picture. Industrial firms use such oscillograms to check products and equipment. Medical researchers use them to check nerve reactions and other functions. The commercial applications of oscillograms are growing but few amateur photographers have yet investigated the field.



These waves show the light output of a projection lamp. Viewing screen grid is visible.



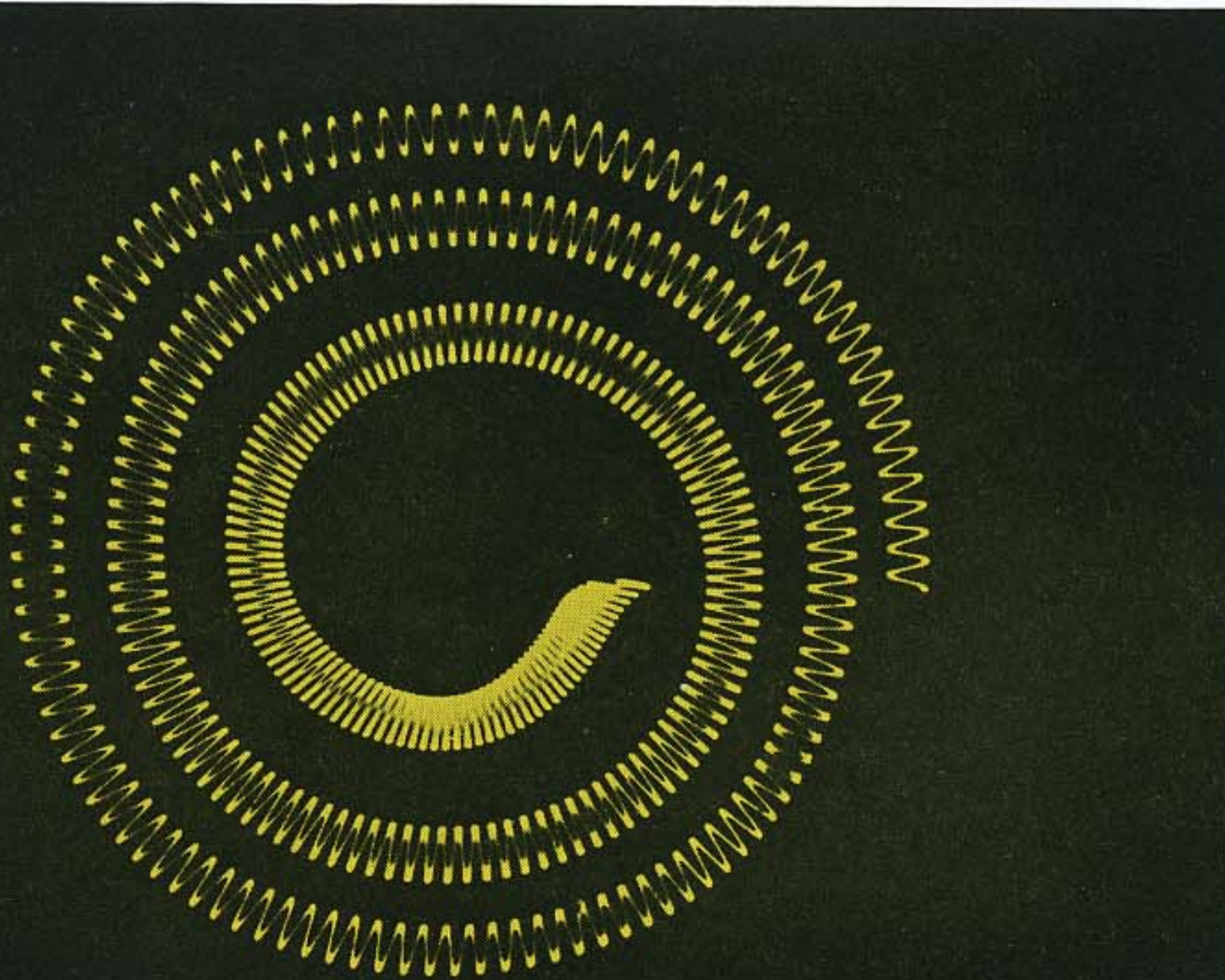
Oscillographic Photography (cont.)

lacking a ground glass. And if a view camera is used, there is the bother of focusing, then inserting film holders and not being able to see the screen at the moment of exposure. A double-lens reflex camera is also complicated because of parallax. With an Exakta, however, the light-tight tube and camera can remain in place and you can focus, compose your exact picture

and see it up to the instant you trip the shutter. It's so simple with the Exakta, that other methods are discouraging and ridiculous by contrast.

To take oscillograms with the Exakta, it is advisable to use extension tubes in order to increase the scale of the image. In most cases, the combination of rear and front adapter rings alone will be sufficient. This will give you a ratio of 1:5.8; the image on the film will be 1 inch if the actual oscillographic picture is 5.8 inches. You can vary the scale of the image by using the

This spiral represents a low-frequency wave of 20-second duration. Such oscillograms, naturally, must be taken with a time exposure, the duration of exposure depending upon the coverage required.



2-in-1 adapter ring and additional extension tubes.

The simplest pattern to photograph is the stationary one. The image recurs from cycle to cycle without change, so all you have to do is open the camera shutter long enough to record one complete sweep. If the shutter is closed before the cycle is completed, part of the pattern will be missing. Aside from this minimum shutter time, neither length of exposure nor aperture setting are critical. Overexposure merely increases the image line width.

Technique is more important when you photograph a continuously varying pattern. For such subjects, shoot several exposures at various speeds.

Generally, the exposure runs between $1/25$ and $1/2$ of a second. Exposure, however, depends upon the speed of the electronic beam, the amount of time the screen retains the image, the amount of the light produced by the screen, the speed of the film being used, the speed of the lens, the aperture of the lens and the extension tube factor. Sometimes the screen retains the image too long and a blue filter must be used. This filter also affects the exposure.

An exposure meter can be used to obtain an approximate exposure setting. Experimentation then will give you the correct exposure.

Many problems of oscillographic photography can be simplified by the choice of the proper film. The oscillographic screen usually is between yellowish green and blue in color, depending upon the lighting substance of the cathode-ray tube. The fastest possible film should be used. Panchromatic film (sensitive to red and yellow) is preferable. Orthochromatic (sensitive to blue and green) and blue-sensitive film may be found advisable when it is necessary to avoid image persistence or yellow light. The fastest recording emulsions for oscillographic photography are Linagraph Pan and Linagraph Ortho.

The film should be developed in a rapid developer so that hard negatives are obtained for better contrast. Standard processing for 35-mm. film in a developer such as D-76 will yield fine-grain oscillograms. Development time is not critical because very little density range is required and grain is no problem. High-speed oscillograms should have prolonged development in a developer such as D-19.

Undesired illumination sometimes causes fogging of the negative. In some instances, it can be eliminated by reduction.

Oscillograms are of more photographic value than merely record shots. They are greatly admired as abstract pictures and should be entered in photo exhibits and contests as fine examples of modern photography.



A simplified version of the Exakta, the Exa, shown at the left, is now available. The Exa is a 35-mm., single-lens reflex and features interchangeable viewfinders and lenses, coupled film transport and shutter cocking, and internal synchronization for regular and electronic flash.

Ihagee's new

Exa

When celebrity gives birth to progeny everyone sets up a hullabaloo. With pardonable pride, we'd like to do a little cheering about the Exa, newest member of the Ihagee line and the Exakta's little sister.

The Exa, now being introduced throughout the United States, is a major achievement in camera design. A simplified version of the Exakta, the Exa also is a 35-mm. single-lens reflex and combines great performance with streamlined operation, two of many features designed to interest photographers who like to take good snapshots but are disinterested in the technical aspects of photography.

As an Exakta owner, you know that you have the finest, most versatile miniature camera made. Your camera is specifically engineered to meet almost any possible photographic requirement. This very fact means that it possesses mechanisms about which a certain amount of knowledge is necessary for excellent results.

Not all photographers, however, want a camera as versatile and highly refined as the Exakta. The average photographer, the one in the snapshot class—and he forms a group tremendous in number—has often expressed the desire for a camera with many of the unique features of the Exakta but with the simplicity of a box camera.

It is for such a photographer that the Exa has been designed. It's the camera for the beginner and for the advanced amateur, who want to take pictures of children, pets, friends, flowers, hobbies or vacation scenes without worrying about technique. It's the camera for a woman to carry in her purse, for a man to slip into his pocket for a Sunday of picture taking.

The Exa is not the camera for the professional, semi-professional or serious amateur who demands a great deal of his equipment (except as a second camera). Such an individual requires the Exakta.

The new baby, on which Ihagee spent years of research and experiments, is everything the snapshot photographer has asked for, wrapped up into one handsome, inexpensive package. Physically, it is smaller than its big sister, measuring 5 inches long, 3½ inches high and 2½ inches deep.

It has an all-metal body, handsomely finished in corrugated black and chrome. Among the Exa's other features are a focal plane shutter, coupled shutter cocking and film transport, and internal synchronization for regular and electronic flash, usually on only most expensive equipment.

Interchangeable, universal viewfinding, an exclusive Ihagee feature, has been in-

corporated in the Exa so focusing can be done on the ground glass at any level. Lenses also can be interchanged, but to a more limited degree than on the Exakta. The Exa will take lenses ranging in focal length and aperture from 50 mm. f 2.9 to 105 mm. f 4.5.

Five basic exposure speed settings—1/150, 1/100, 1/50, 1/25 and bulb—adequate for the needs of the average photographer, are possible by means of a revolutionary new exposure setting lever. A trigger-like lever permits instant exposure speed setting by means of the index finger.

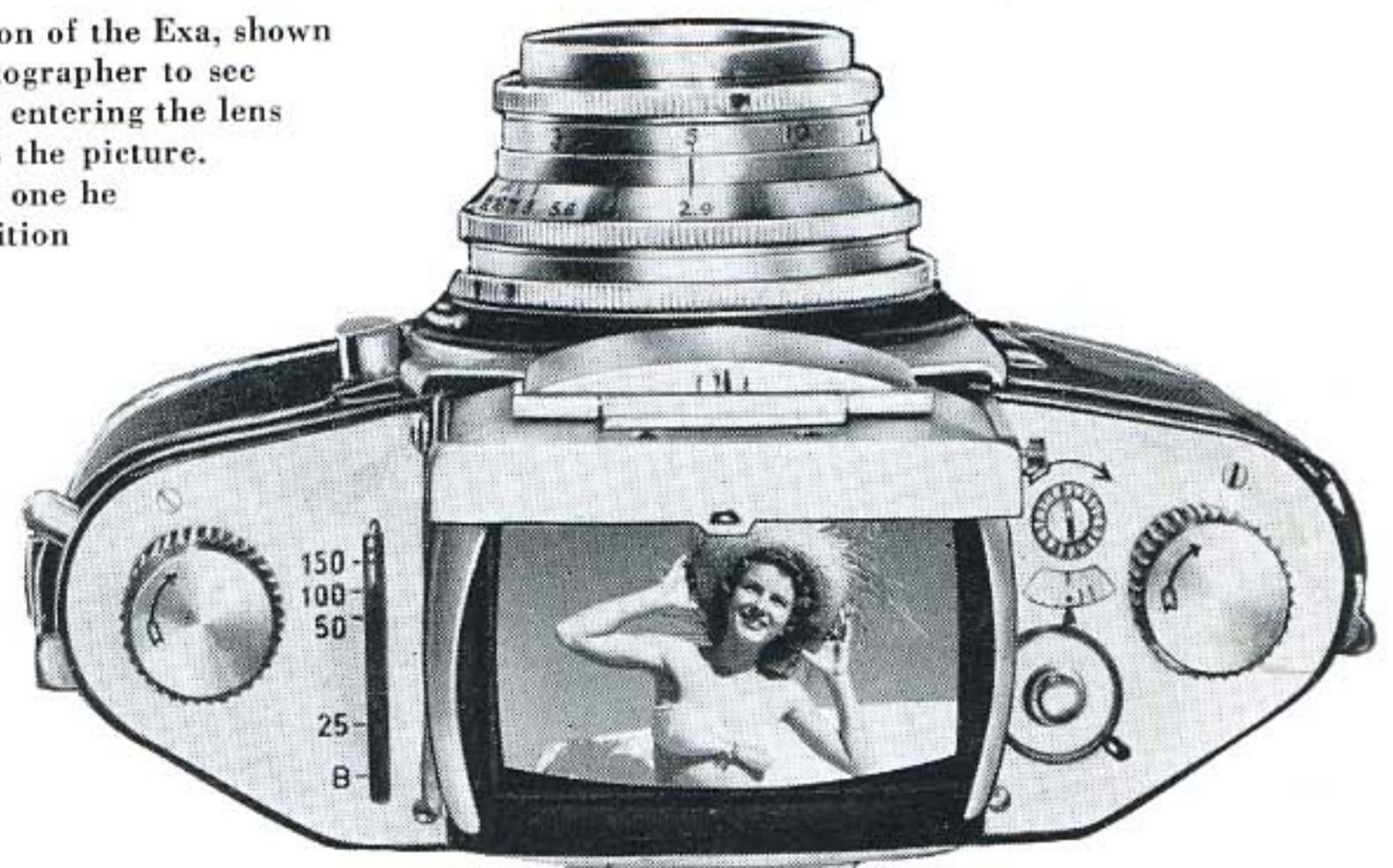
Exa with f 2.9, 50-mm. Ludwig Meritar
list \$97.50, tax \$11.40

Exa with f 2.9, 50-mm. Meyer Trioplan
list \$111, tax \$13.25

Exa with f 3.5, 50-mm. Zeiss Tessar
list \$120, tax \$13.95

All prices fair traded

The single-lens reflex action of the Exa, shown at right, permits the photographer to see exact image of the subject entering the lens until the instant he takes the picture. The picture he sees is the one he gets in sharpness, composition and lighting.



Reflector Floodlamp Coverage



Relative angle of coverage of G.E.'s RFL2 is shown above. Note wide, smooth spread of light. Reflector flood's beam is about 90°.



G.E. claims only 40° coverage for the 375-watt medium beam reflector floodlamp but target shows about 50° is well-lighted.



Intense concentrated beam of RSP2 is shown here. Coverage is only 20° but light intensity is nearly eight times that of RFL2.

Almost every Exakta owner is familiar with the No. 1 and 2 floodlamps, which are extremely useful for indoor color and black-and-white photography. Less known are the several reflector floodlamps which have been on the market for a long time, but which have never attained their rightful popularity with photographers.

Reflector floodlamps look like squashed floodlamps. If you can visualize the front end of an ordinary floodlamp flattened out, you have a good idea of what they look like. Because they have a reflector built in, their usefulness is much greater than the average camera owner realizes.

Use of a reflector floodlamp eliminates the need of external metal reflectors. This in itself is quite an advantage since there is less bother in setting up the lights and, when equipment is transported, less to carry. In addition, the condition of the reflectors in the floodlamps remains unchanged, unlike external reflectors which get dirty and dull. A photographer who uses ordinary floodlamps usually finds it necessary to own two sets of reflectors. One set is needed to give a flood effect, the other a spot effect. Reflector floodlamps contain either one of these two types of reflectors.

There are four types of reflector floods. Both General Electric and Westinghouse make the RFL2 and the RSP2 to the same specifications. The names are abbreviations for their function.

The RFL2 (reflector flood) gives a smooth, broad (90°) controlled beam about equal to a No. 1 floodlamp in a very good reflector. It is recommended for all-around use. It uses 500 watts at 115 volts (4.4 amperes) and no more than three should be used on the usual household circuit.

The rated life of the RFL2 is 6 hours (of use) and the approximate maximum beam candlepower is 6,500 lumens. (Lumens are a measurement of the quantity of light falling on a one-square-foot surface, every point of which is one foot from a light source of one candlepower. The ordinary No. 1 floodlamp furnishes 8,500 lumens at 115 volts, the No. 2 gives 17,000.)

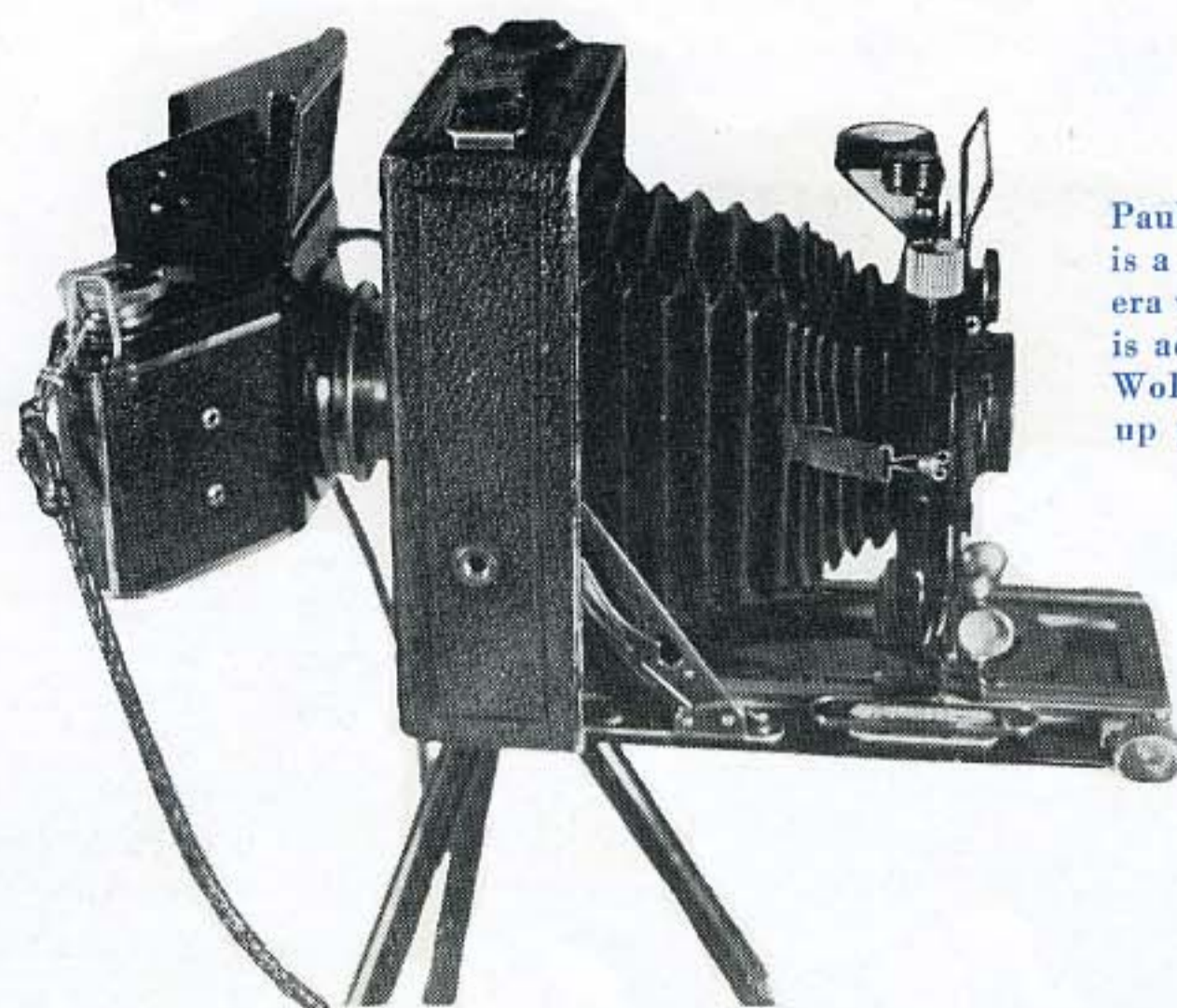
The RSP2 (reflector spot) is useful for spotlighting and back-lighting. Its light has been squeezed into a narrow beam (20°) nearly eight times greater in intensity than that of the RFL2. The RSP2 also consumes 500 watts at 115 volts and no more than three should be used on the household circuit. It has a rated life of 6 hours and furnishes a maximum of 50,000 lumens.

G.E. makes a 375-watt medium beam reflector floodlamp, designed especially for use in four-lamp brackets. It puts maximum even light in the picture area without overloading home lighting circuits. This lamp uses 375 watts at 115 volts (3.3 amperes) and its rated life is four hours. The manufacturer does not furnish information about the number of lumens. The coverage of the G.E. RFL2, RSP2 and 375-watt lamps is shown in the three photos at the right.

Westinghouse makes a 300-watt R30 reflector floodlamp an in-between bulb, like G.E.'s 375-watt. Lumen data is not furnished.

All reflector floodlamps have an approximate color temperature of 3400° Kelvin. With black-and-white film this is not important, but with color film it is. With Kodachrome Daylight color film, a Wratten No. 80 film must be used. Kodachrome Type A can be used without a filter because it is balanced at 3400° Kelvin. Ansco Daylight color film may be used with a conversion filter No. 10, tungsten type with a UV15.

My Dream Camera



Paul Wolf's "dream camera", shown at the left, is a combination of an Exakta and a 9x12 camera with a bellows. The back of the 9x12 camera is adapted as shown below to take the Exakta. Wolf prefers this combination for taking close-up photos in color so he can use the bellows.



BY PAUL J. WOLF, A.P.S.A., *Director and Past President of New York Color Slide Club and Secretary, Color Division, Photographic Society of America*

Most photographers, it seems, are incurable gadget hounds, and many strange devices are in constant use, made to take care of some emergency or problem, and working well. Like many another shutterbug, I, too, have my prized Rube Goldberg. Since I specialize in color slides, and enjoy competition in both the color and nature fields, I am often confronted with the problem of taking a picture of a small object, full size or larger.

My solution to this problem is to couple two cameras together: a 9x12 Voigtlander Avus and an Exakta B. This permits using the Exakta with a Bantam adapter, which

I prefer, as the added size of the Bantam frame permits some additional picture area. In operation, the rig uses the lens, iris diaphragm and focusing mechanism of the Avus, and the ground glass, film transport and shutter of the Exakta. (*The Exakta B and Bantam adapter are no longer available but any 35-mm. Exakta can be used.—Ed.*)

I have worked with extension tubes on the Exakta and they will give the desired result. However, I prefer to use an actual camera bellows. A member of my camera club, who also uses an Exakta B, has a machine shop and is an expert at turning out all sorts of odd gadgets. Conversation with him brought out the fact that he used his Exakta on the back of a 4x5 view camera with long focus lenses. I thought such a coupling device for my old but good 9x12 would be a great advantage.

Therefore, he made me the coupling plate, which consists of a piece of 1/16" aluminum of the proper size and shape to fit the grooves on the back of the Avus, with a threaded tube attached to take the lens mount of the Exakta. Naturally the regular lens of the Exakta was removed.

This rig permits using the double ex-

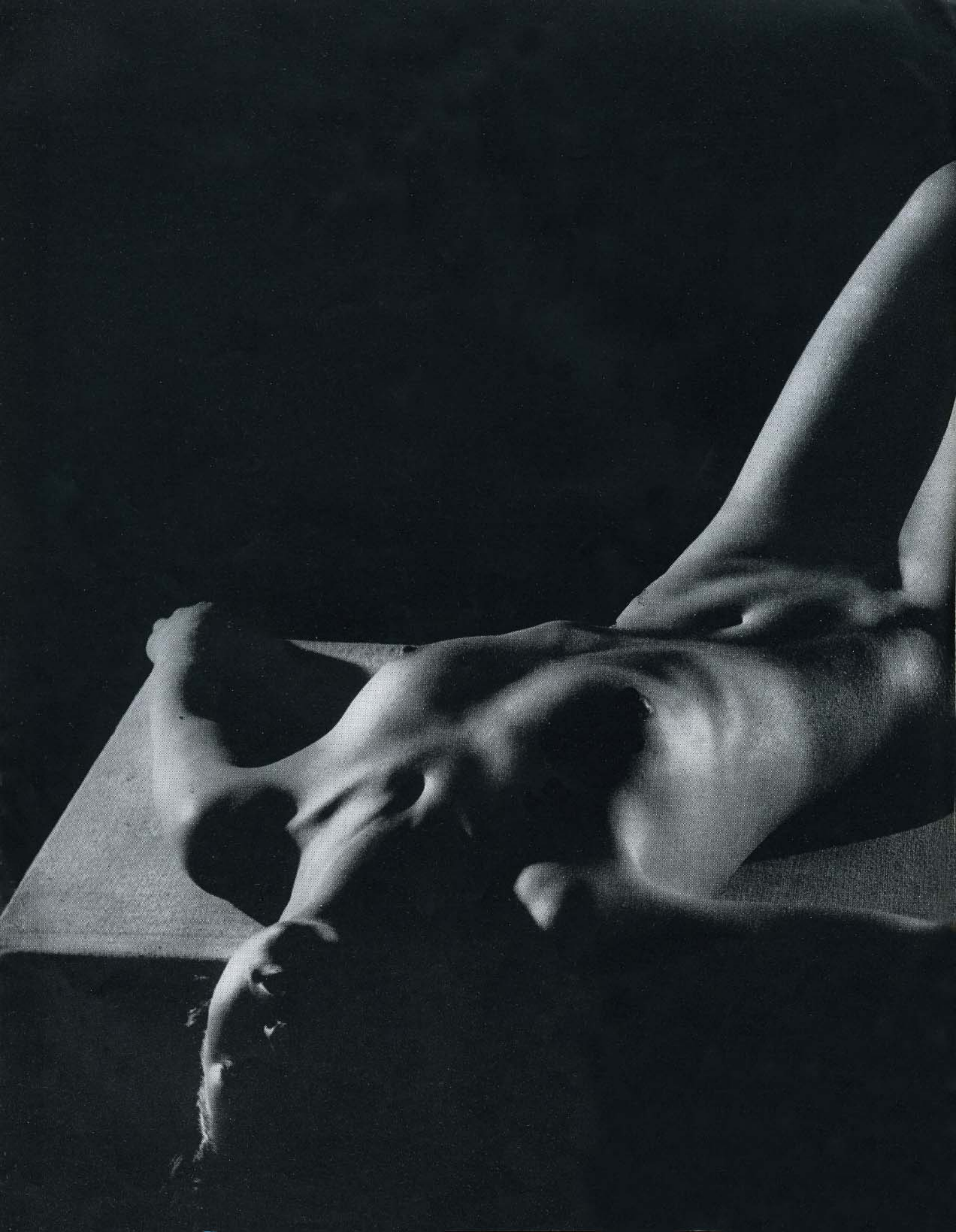
tension bellows of the Avus. All that's needed is to measure the actual extension of the lens from the film plane, convert the marked f-stop to the actual stop by reference to a Lens Kodaguide and make the exposure. The shutter of the Avus remains open all the time, of course.

Since the Exakta shutter has speeds up to 12 seconds, it is obvious that time exposures are easy to make. Long exposures usually are required when extreme close-ups are made because small lens apertures are used to secure adequate depth of field. The movements of the front mount of the Avus, rising and falling, and sideways as well, are a great help in composing, as is the fact that the mount provides a "revolving back."

And one last comment: a clerk in a large and well known camera store told another club member, who attempted to describe the above equipment, that such a rig was impossible, that it would not work, and that he was having a "pipe dream." But in the four years that it has been in use, this rig has proved so handy and useful that I can't quite see how I ever got along without it. For any sort of small object photography, it is tops.



These three pictures, left, are examples of the excellent results Wolf has had with his "Rube Goldberg" camera. They are black-and-white reproductions of color transparencies. He has produced many prize-winners with this Exakta-Avus combination.



The Nude

BY MARTA HOEPFFNER

Foto-Schule, Hofheim/Taunus, Germany

Photography is my vocation—my life—my love. I am continually photographing, even if I do not carry a camera with me. The moment I hold a camera in my hand I feel feverish. Impatiently, I want to capture everything as I see it, with the artistic features and all details. If I cannot, I feel bad. That's why I enjoy my Exakta and four different lenses. With them, photography is sheer pleasure.

Taking nudes with the Exakta is quite easy. The ground glass permits you to control the composition and to see the effect of the lights. If the composition and lighting are unpleasant, you can see it in the ground glass.

Light coming from two sides and back of the stage gives a strong three-dimensional effect and is very artistic. I used this type of lighting for this picture.

Posing and lighting are important, of course, in any photo of the nude. Badly done, they can ruin a picture. A much more subtle factor is self-consciousness of the model. If the model feels ashamed the picture will convey this feeling. If the photographer is not professional in his attitude toward the model, the result will be just a picture of a naked woman.

A telephoto lens was essential for this picture. Imagine what would have happened if I had not used one? Impossible distortions would have ruined the photograph. With a 120-mm. lens on my Exakta, however, it was possible for me to get back far enough to obtain the proper perspective and a large image. These two advantages make long focal length lenses very useful.

This, by the way, illustrates the importance of using proper equipment when taking pictures. To a photographer who is interested in his work, there is nothing more distressing than not having the right lens or camera.

Camera Shake (continued from page 5)



The pictures at the left show eight ways to avoid camera shake. Top row, left, arms are held tightly against body, camera jammed firmly against the face; right, same procedure and legs spread apart. Second row, left, photographer's back braced against wall (note how fingers hold camera); right, knee doubled up acts as tripod substitute. Third row, left, stone slab, window sill or similar base makes a convenient support; right, double support of shoulder and waist is shown here. Last row, left, after focusing and estimating angle necessary to cover subject area, photographer uses wall for a high-angle shot (pencil placed behind the camera gives necessary tilt); right, vertical-format shots are taken with wall support in a similar manner.

for himself. A few trials and the correct routine will become a habit.

With a good grip on the Exakta and the fingers so positioned that they freely operate the controls, your hands provide a steady support for the camera. At the same time, your arms should be held against your sides.

In standing position, spread your legs for balance, to prevent slight swaying. Press the release button unhurriedly, without jerking. Take a deep breath and hold it for the duration of the exposure.

It never hurts to be sure of a steady exposure (therefore, a sharp negative)

even when shooting at 1/100 or faster. Because the 35-mm. negative is usually enlarged to 8x10 or 11x14 inches and even larger, some photographers make it a practice to avail themselves of various steadying maneuvers whenever possible.

After focusing and estimating the picture area to be covered, they hold the camera against a wall. Often, the knee, the shoulder or an elbow rest provides an adequate substitute for a tripod when you are working at slow shutter speeds. A few suggestions are shown in the illustrations. Every photographer develops tricks of his own in this respect, and so will you.

EXAKTA PHOTOGRAPHY

at its
brilliant best
with
Westinghouse
PHOTO LAMPS

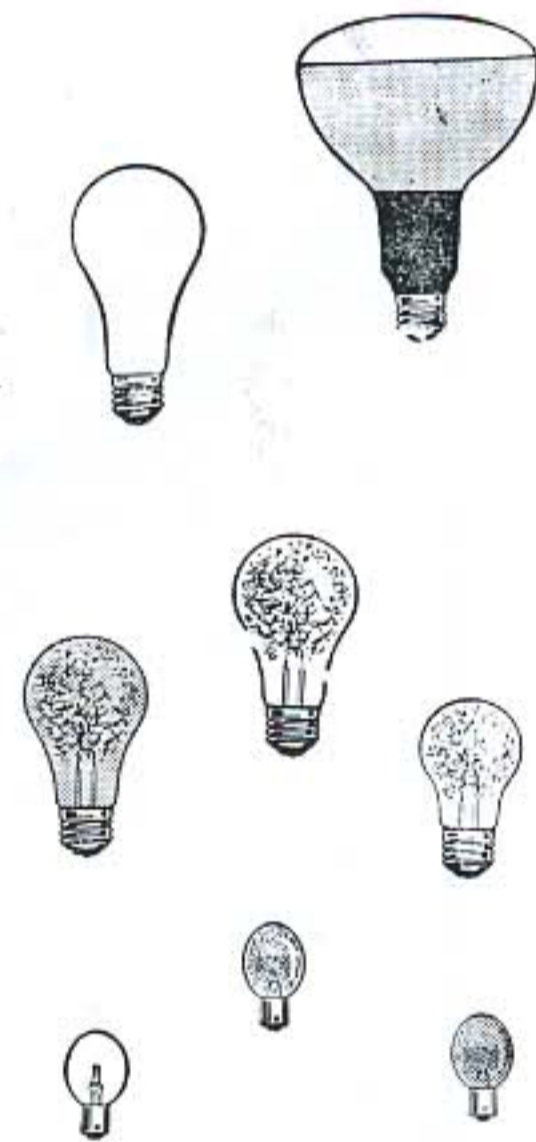
Day or night, indoors or out, sparkling negatives are yours to command with dependable Westinghouse Photoflood and Flash bulbs.

NOW... A NEW DIMENSION IN INDOOR PHOTOGRAPHY



The new, compact, Westinghouse R-30, Medium Beam Reflector Photoflood . . . 300 watts of photographic lighting in just a handful of bulb. See it at your dealer now.

You can be SURE . . . if it's **Westinghouse**



TECHNIQUE

BY WOLF WIRGIN

To help Exakta owners, the Exakta Camera Company maintains a Technical Service that answers queries about the use of the camera and helps solve photographic problems. In the course of this work, the Technical Service has received from Exakta owners information that is not always readily available in photographic literature. This material can be of great help to other Exakta owners, if not immediately, then for some future photographic work. Again, although the material may not be utilized fully, many valuable ideas can be obtained from it to enhance photographic results. Exakta Camera Company would like to extend the services of the Technical Division to all Exakta owners and publish the information. Therefore, we have established this page as a regular feature of the magazine and we invite all Exakta photographers to contribute. Information about new methods of using Exakta equipment is most welcome. Contributors will be paid if their material merits it and is used. We also invite Exakta owners to query us about technical difficulties. Please address your letters to Wolf Wirgin, Technical Service, Exakta Camera Company, 46 West 29th St., New York 1, N. Y. For this issue of the magazine we have selected a number of letters that have come to us recently. The questions in them are often asked by other Exakta owners, so we feel that the answers will be of benefit to many of our readers.

Coarse Ground Glass

Gentlemen:

I have an Exakta II and am more than pleased with its performance. During the year that I have owned it, I have probably taken more pictures than the average individual would in several lifetimes. I have used it at all speeds and for all sorts of photographic purposes, including macroscopic and microscopic work. One could easily say that it is the answer to a scientist's prayer.

This letter concerns chiefly the matter of photomicrography with my Exakta. As you know, the lens system used in this type of work is that of the microscope itself. Your adapter makes it very convenient to take photomicrographs. However, I find that the ground glass of the reflex finder in the camera is sometimes too coarse to permit an accurate focus of such items as mitochondria, Nissl bodies, etc. More often than not the grains in the ground glass are larger than the objects to be photographed. This, of course, makes the accuracy of focus guesswork.

In my Graphic camera, I have solved this matter very satisfactorily by cementing a small slide cover glass with piccolyte to the ground glass surface of the viewing back and using a hand lens to bring the object into critical focus. I find this impossible to do, however, on the Exakta because I cannot find a cover glass small enough so I can use the camera for other purposes, and because I am unable to get to the ground glass without taking the camera apart. If

the cover glass were small enough so as not to interfere with taking pictures in regular photographic work—landscapes, children, etc.—it would not matter much. If you have any suggestions or accessories which would help solve this problem, I would appreciate very much hearing from you.

W. C. G., Assoc. in Zoology
Davis, Calif.

It is possible to remove the ground glass of an Exakta II and cement an auxiliary piece of slide cover glass, as with the Graphic, but it should be done by a competent camera repairman. There is a better way to achieve the same result, however. Clear and partly clear, partly ground focusing glasses are now available for 35-mm. Exaktas. The latter come with a clear center spot or with a hairline cross in the clear center spot. Any of these focusing glasses can be permanently installed in the viewfinder of the Exakta I and II. They also can be installed in either the regular hooded finder or the Penta Prism finder, which are interchangeable, in the Exakta V, or in separate finders.

Blue 22B Flashbulbs

Gentlemen:

I have been using 22B's for indoor color photography with the result that the last one-fourth of the transparency is underexposed. I recently secured some No. 31's (a focal plane flashbulb) and coated them

using Alkote Blue. I would like to have your suggested exposure for what would be a 31B bulb.

E. B., County Agent
Lewisburg, Tenn.

22B and other flashbulbs not designed for focal plane shutters should not be used with the Exakta because there is always the risk of uneven lighting. A focal plane shutter contains a slit of varying width which travels across the film plane. A focal plane bulb, which has an even plateau of light, will light the film evenly. A bulb of another type, because its light has a sharp peak and then falls off rapidly, will not light the film evenly in most cases because during the last part of the exposure there is less light than during the first part. We contacted the Westinghouse laboratory and their chief photographer informed us that they coat their own bulbs for indoor color photographic experiments. The bulbs are kept in blue dye five minutes, then dried. The exposure factor for dyed bulbs is 2; in other words, the exposure time for clear bulbs is doubled when using blue bulbs.



Extension for Close-ups

Gentlemen:

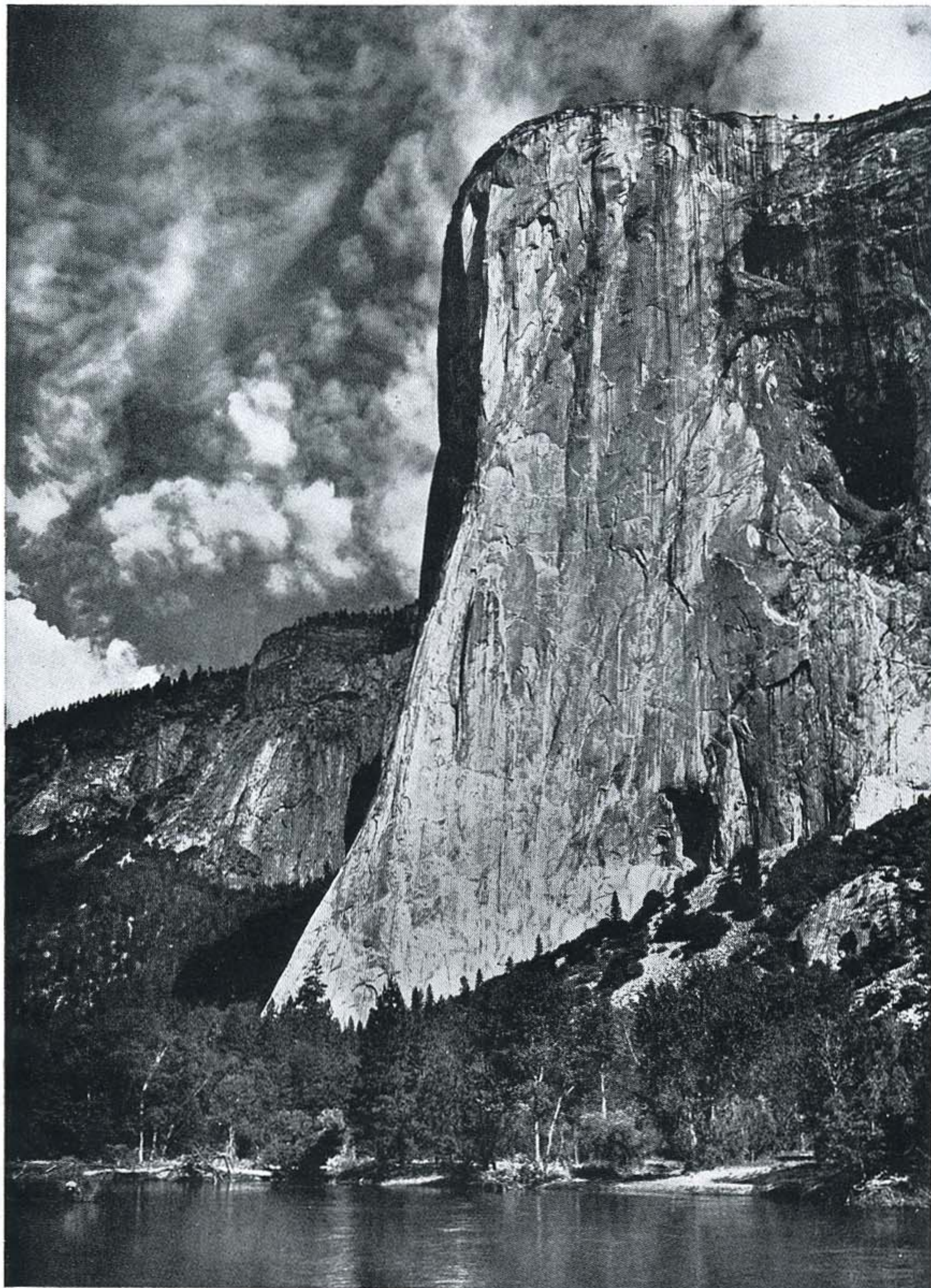
I am very pleased with my new model V Exakta and its extension tubes and adapters. However, I find one difficulty which perhaps you can solve for me. With the lens alone, I am able to focus to about 50 cm., with adapters plus lens I am able to focus at about 22 cm. But a blind area exists between 50 and 22 cms. in which I am unable to compose or focus. Since many of the objects (animals and plants) which I photograph are best portrayed at a camera distance between 50 and 22 cms., I would greatly appreciate any suggestions you may have with respect to an adapter or manipulation of my present equipment.

D.H.T., Instructor
San Luis Obispo, Calif.

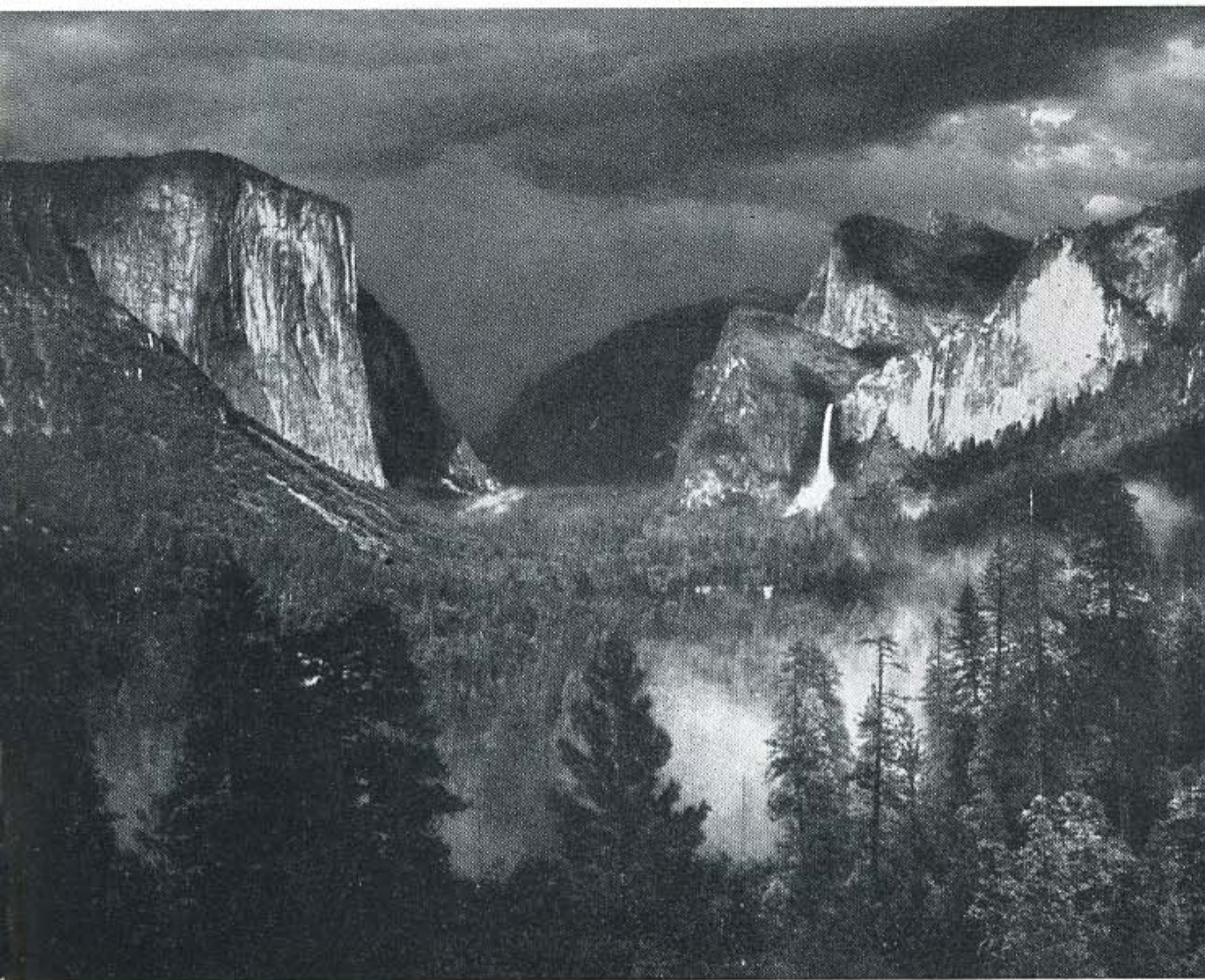
For extremely short distances not covered by the regular set of extension tubes, there is now available the 2-in-1 Adapter shown in the accompanying photo. The back lens mount and the camera mount are combined into one unit, which extends the lens 5 mm. from the camera, the amount needed to cover the hitherto blind area.

YOSEMITE

by
Ansel
Adams



The great rocks of Yosemite, expressing qualities of timeless, yet intimate grandeur, are the most compelling formations of their kind. Boldly advancing from the matrix of the mountains, towering thousands of feet into the sky from the green edge of the Valley floor, they dwarf every conceivable structure of man. (Made with a green filter which acts somewhat as a medium yellow filter on blue sky, but renders green somewhat lighter in tone. Exposure was 1/10 of a second at between f 22 and f 32 on Superpan Press film.)



Always impressive to the eye, this grand view does not photograph excitingly unless there are cloud or storm effects to complement the tremendous scale and vitality of the Valley itself. In storm there are constant interplays of light and shadow, moods of clarity and obscurity, vast complexities and ethereal simplicities. (Made with a 400-mm. lens and medium yellow filter on Panatomic-X film and developed slightly more than normal in D-23.)

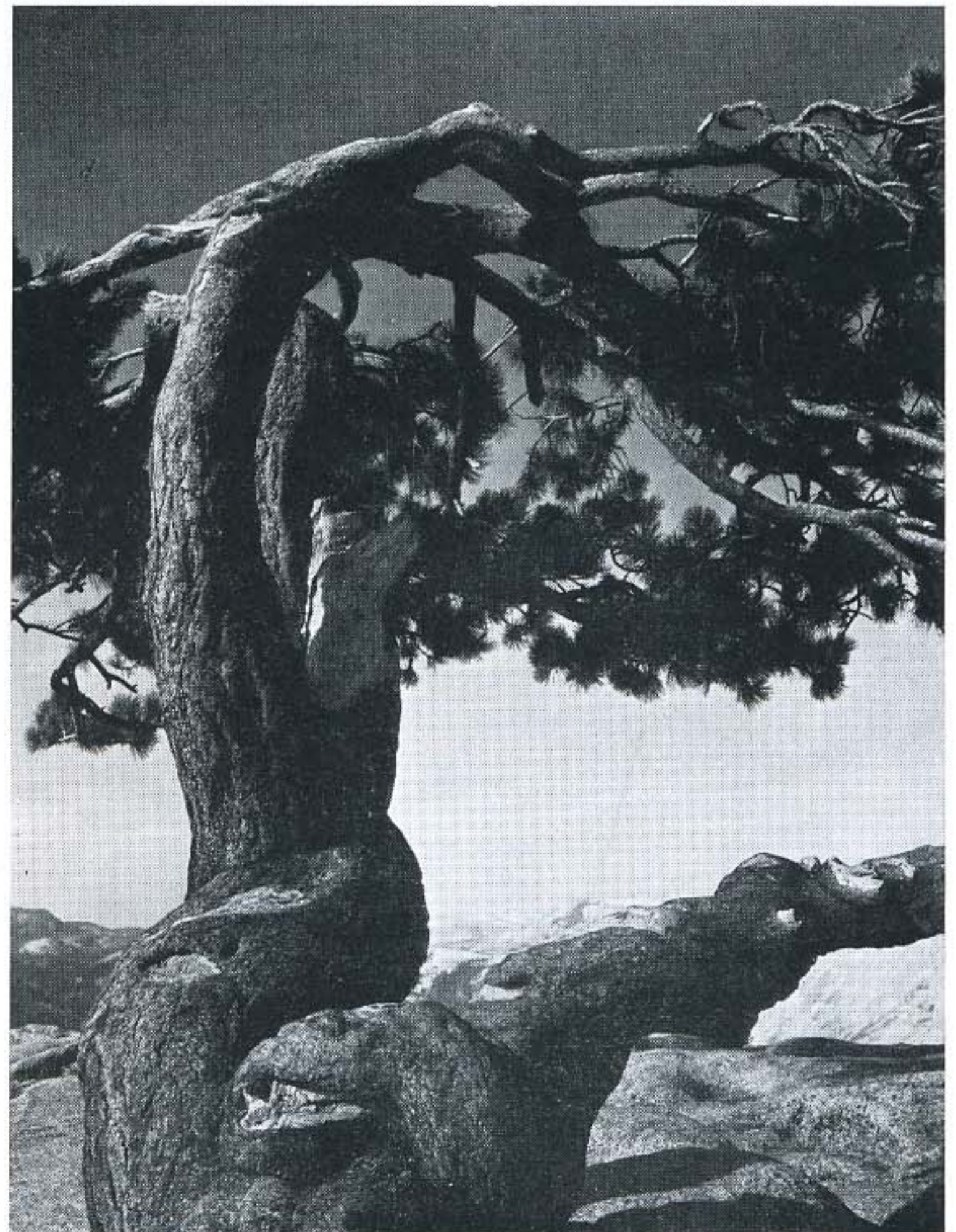
One of the most conventional picture subjects of Yosemite, this tree is usually shown in entirety. Despite the accumulated vandalism and wear and tear of the years it reveals a beautiful formal structure from all points of view. It gives the impression of tremendous strength and endurance, and its form is evidence of the constant flow of wind over the Dome. (Made with a medium yellow filter at 1/10 of a second at f 22. The problem of depth of field was severe while the motion of pine needles in the wind demanded a reasonably short exposure. The negative was developed normally in D-23.)

Each year, and in every season, many thousands of people come to Yosemite with their cameras. Some are professionals and artists, many are advanced amateurs and the vast majority are "snapshotters"—beginners desiring to record the experiences and sights of their trip to the Magic Valley.

Every photograph is a crystallization of experience—of real value to the maker and of potential value to the spectator. While tyros rush in where artists fear to tread, it is wrong to assume that only advanced photographers should essay the problems of Yosemite. With some thought and experiment, with a little knowledge and awareness of the medium of photography and a sympathy for the subject, an entirely new expressive world unfolds. The beauty of the natural scene may be perpetuated, at least, beyond the visual experience of the moment. . .

Composition, in the usual sense of the term, will not be discussed here. Composition in photography has little to do with composition in the graphic arts. In fact, the domination of conventional compositional ideas has done far more harm than good to creative photography. In photography, composition is really revelation; as Edward Weston has said and as I have many times quoted him—"Composition is the strongest way of seeing."

Rather than compress the forms and space of nature into some preconceived pattern of design or arrangement, I think it far more logical to study the natural forms and spaces as they are in themselves, distill these qualities through your personal perceptions and emotions, and express them strictly





In no other spot in Yosemite is found such a rich combination of massive granite and powerful roaring water . . . the height and tempo of Yosemite Falls, and the majestic flanking cliffs of Yosemite Point and of the east shoulder of Eagle Peak, combine to form one of the most exciting spectacles of Yosemite. (*Due to the relative nearness of the Lower Fall, which descends with great speed, and dashing of spray from its rocky base an exposure of 1/100 of a second was required. Very short exposures would merely "freeze" the falling water and spray. The Upper Fall, being about one-third of a mile back from the brink of the Lower Fall, would require an exposure of only 1/25 of a second at this distance from the camera. No filter was used; with even a light yellow filter the atmospheric recession observed between the near and distant cliffs would have been lost, and an important feeling of depth destroyed.*)

The Merced River at Valley View is dotted with rocks and clumps of sedge which are revealed at the time of low water. On these little river islands the snow piles high in heavy storms, forming an intricate labyrinth of domes, ridges and crystalline bridges over the cold dark water beneath. (*Made with a medium yellow filter, which accentuated the textures of the shadowed and edge-lighted snow. The shadows vary in brightness, due to the proximity of reflective surfaces. Normal development was given in D-23.*)

YOSEMITE (*continued*)

in terms of the medium itself. The trite concept of "S curves," "framing the picture" and depth-through-fuzziness techniques are all inconsequential in relation to the simple, but carefully selected revelation of the lens. What you see, as the photographer, is more important than anything else, and I shall not impose my ideas upon this personal expressive domain. . .

. . . In all applications, the basic photographic techniques apply; the imagination and intention of the photographer are never to be circumscribed by any written statement or by any precedent of creative work. (Text and pictures from *My Camera in Yosemite Valley* by Ansel Adams, Houghton Mifflin Co., Boston, \$10.)



New Ways in Photography



From the time of Daguerre until recently, photographs were comparable to painted miniatures, which must be held close to the eyes to be seen. In recent years, however, photographs have followed the trend of more modern painters whose canvases appear to be composed of little blobs of paint when viewed closely but whose artistic creation can be appreciated when one steps back a few paces from the work.

Modern photographic tools and new creative vision make it possible to record on film not only anything the eye sees, but anything the mind can imagine. Often, such pictures create a technical as well as a visual problem. The result of such a combination of problems is reproduced on the cover of this issue.

Ben Somoroff, the photographer who made the picture, spent several years in photoengraving. He became familiar with the use of everything from the 35-mm. to the 11x14 camera, and associated equipment. This extensive experience makes it possible for him to photograph what he sees, but his background as an artist impels him to change it into what he imagines. Mere recording does not interest him (nor should it interest you).

This picture of a picture of an eye was taken by Somoroff in 1941 through a halftone screen and enlarged to the size on the cover. Although the "halftone dot" idea is not new, he has achieved striking results with it here. The screen consists of two flat pieces of acetate, ruled with black parallel lines. Usually, there are 50 to 150 lines to the inch. The number of lines to the inch designates the fineness of the screen. Somoroff used a 90-line screen, which was placed between the lens and the film.

We know that light traveling through the lens (and, in this case, through the screen) to the film is reflected by the subject. What is light in tone in the subject registers dark on the negative.

The halftone screen breaks up the light into dots, which differ greatly in brightness and size. The brightness is greater toward the center of the dot than at its edges. A bright beam forms a larger black dot than a weak ray. Since each dot records as a tiny black point, the negative consists of thousands of black dots varying in size in exact ratio to the intensity of the light reflected from the subject.

The eyelid in the picture reflected more light than the eyebrow or iris, therefore, produced larger black dots. This variation in light intensity also caused the black dots to overlap in the pupil, which reflected a greater amount of light than the surrounding iris.

Of course, the cover picture is a print, not a negative. In printing, the black dots became white and the white portions of the negative became black.

The result is quite amazing. Hold the cover at arm's length. The photograph is just a mass of dots and no more. Now look at the cover from a distance of about 20 feet. The result is a truly artistic picture with an unusual three-dimensional effect—and yet, it is still a photograph!

When your subject is FAR AWAY



use a

Steinheil Telephoto

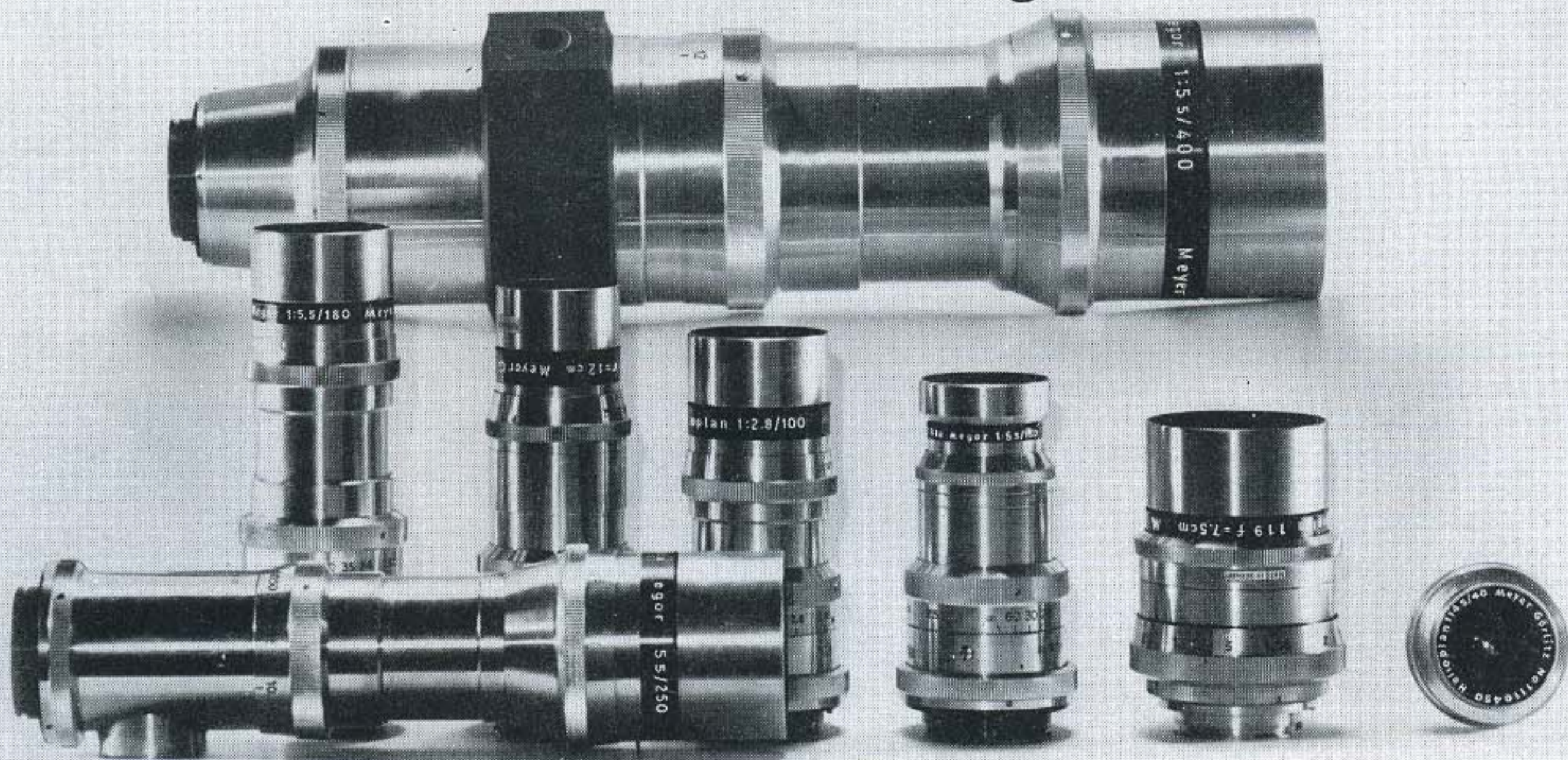
A telephoto lens is like a telescope. Optically, it brings your subject close to the film and gives you a larger image. Imagine the ease with which you can shoot a mountain miles away, a parade unhampered by crowds, or other fascinating scenes impossible to get if a long focal length lens is not used. And if you're worried about distortion in portraiture or similar close-ups, just back up and use a telephoto for pictures of prize-winning quality. And when you buy a long focal length lens, make it a Steinheil Culminar.



The Culminar, the choice of discriminating Exakta owners, is the culmination of Steinheil's 100 years of experience in lens making. It meets the highest standards for color correction, sharpness and performance. It is available in two lengths, an unusually fast 85-mm. f 2.8 and a regular 135-mm. f 4.5, both coated and contained in a beautiful satin-finish, lightweight mount. Each is \$69.95 in the Exakta mount. C. A. Steinheil Soehne, Munich, Germany. Factory representative in U.S.A., Exakta Camera Co., N. Y.

*From 40-mm. to 400-mm.
Lenses for your Exakta by*

Meyer



Like Damon and Pythias, Meyer and Ihagee have worked together to develop the incomparable Exakta camera. Meyer's outstanding staff of scientists labored for years in the world-famous Goerlitz laboratories to develop special lenses for the Exakta, lenses that would record any subject with the accuracy and sharpness that this great camera merits. Meyer is proud of its lenses and equally proud to have them on the Exakta. No matter what your photographic need is, there is a coated Meyer objective to fill it.

f 4.5 Helioplan (wide-angle), 40-mm. \$ 74.50	f 5.5 Tele-Megor, 180-mm. \$ 69.75*
f 2.8 Trioplan, 100-mm. 72.00*	f 5.5 Tele-Megor, 250-mm. 132.15*
f 5.5 Tele-Megor, 150-mm. 57.00*	f 5.5 Tele-Megor, 400-mm. 199.50*

* Plus tax

MEYER OPTIK, GOERLITZ, GERMANY

The Bayonet Lens Mount

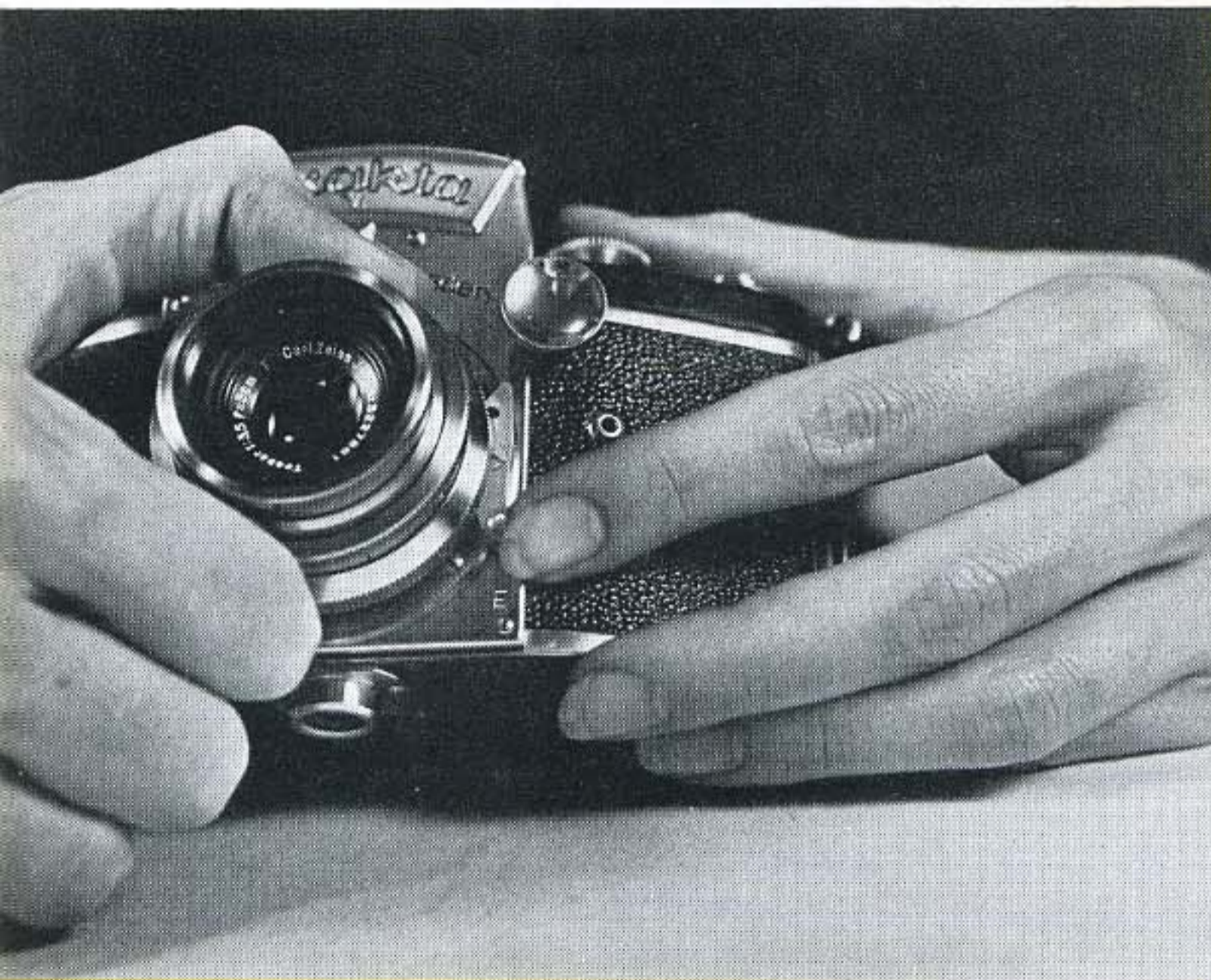
Progress in photography usually has been linked to an increase in speed—speed of exposure, lens, film and operation. That's why the miniature camera gained immediate favor when it was introduced. Photographers recognized at once that it is easier and faster to operate than larger cameras.

One of the major reasons for the popularity of the 35-mm. camera is the possibility of interchanging lenses swiftly, a distinct advantage over view and press cameras. This feature alone changed the course of photography and the credit for it should go to one of the most ignored parts of the camera—the bayonet lens mount.

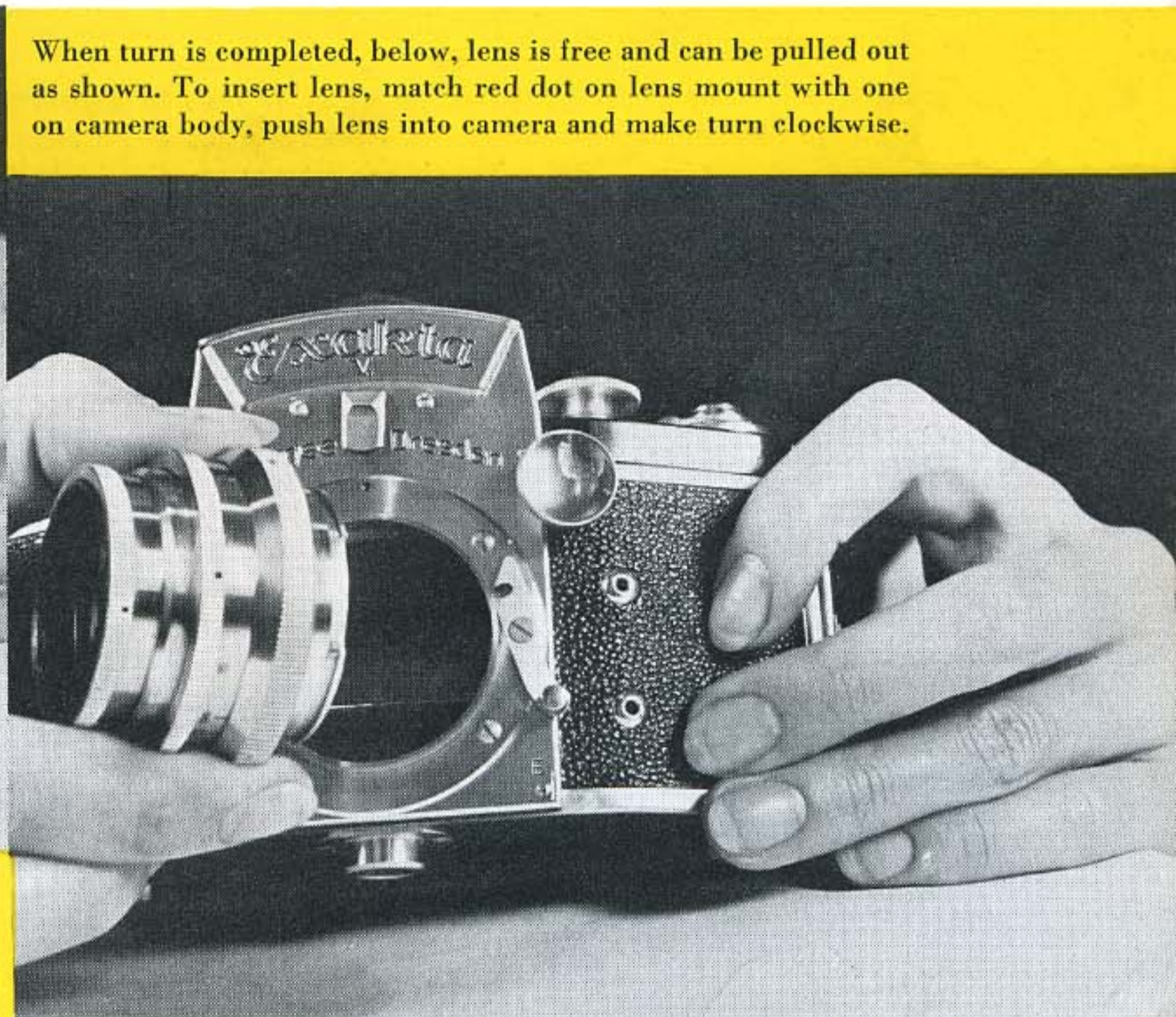
and match it with the red dot on the camera body mount. When the red dot on the lens is directly underneath the one on the camera body, then the lens can be inserted and turned clockwise for 90°. A click will indicate that it is locked in place.

As you can see, the interchange of lenses on your Exakta is simple, but the purpose behind it is far-reaching. The versatility of any camera is determined by the possibility of switching lenses and the range of the lenses available. The Exakta leads all others in number and variety of lenses available.

Every lens manufacturer of any significance makes objectives



The bayonet lens mount makes lens removal and insertion simple and swift. Above, lock to left of lens (camera facing away from you) is pushed and lens is given a 90° turn counter-clockwise.



When turn is completed, below, lens is free and can be pulled out as shown. To insert lens, match red dot on lens mount with one on camera body, push lens into camera and make turn clockwise.

To understand its significance, one must consider how lenses are changed on larger cameras. The lens and shutter are mounted on a board that slides into a slot on the frame to which the bellows is attached. A metal bar or similar device locks the lens board into position. Such an arrangement is slow and clumsy.

The lens board method of interchanging lenses dates back almost to the beginning of photography. The next logical development was putting the shutter next to the film in the camera body and mounting the lens in a barrel with threads at the rear so it could be screwed into an equivalent mount on the camera face.

This speeded up lens interchange but not enough. So camera manufacturers replaced the threads on the barrel with what is known as the bayonet mount. The rear of the lens mount fits corresponding slots on the camera face mount. A quarter-turn either locks or unlocks it.

You have such a mount on the 35-mm. and 2¼x2¼ Exakta. To change lenses on your Exakta, simply press the lens lock on the left side of the camera front (when the front of the camera is facing away from you) and simultaneously turn the lens 90° up and toward you (counter-clockwise).

To insert a lens, locate the red dot on the rear mount of the lens

equipped with the Exakta bayonet mount. Lenses as short in focal length as 35 mm. and as long as 500 mm. or more can be used on your camera. The bayonet lens mount made all this possible.

Exakta owners are even more fortunate than they realize. With view and press cameras, when another lens is installed the focusing is done in the same way and the exact picture can be viewed on the ground glass. This advantage also is offered by the Exakta's single-lens reflex design. This is what makes the Exakta so important to 35-mm. photography. The Exakta has retained this vital feature, while other 35-mm. camera designers have dispensed with it.

Every time you put a different focal length lens on your Exakta, you create a new camera. You can switch from close-ups to portraiture to wide angle to telephoto with the twist of a wrist. That's an advantage that puts you far ahead of owners of other cameras.

The Exakta bayonet lens mount and rapid interchange of lenses make possible the solving of photographic problems without delay or difficulty. For instance, technical squads of electric companies once inspected porcelain holders and other installations on poles by climbing to the top. Now they use Exakta cameras with 135-mm. telephoto lenses to shoot pictures which are projected on a screen and examined for needed repairs.

New Books

SUMMER'S CHILDREN by Barbara Morgan, Morgan and Morgan, Scarsdale, N. Y., 159 pp., \$7.50.

Whenever the spirit becomes jaded and yielding, along comes a wonderful book like this one to reaffirm one's faith in photography. These are beautiful pictures of real live children, not stilted human manikins or grimacing monkeys. Barbara Morgan has taken a simple subject—children's camp life—and with an approach that is maternal, gentle and loving created a social document that is splendid. This is how pictures should be taken, without the hokum of posing, without formality and artificiality. *Summer's Children* is a textbook on superb photography. You won't find any lighting diagrams or technical data to copy. You can get that elsewhere. Barbara Morgan can teach you how to see a picture, and, better yet, how to feel one. Get this book, study the illustrations and text and you can't help but be a better photographer. And if you're interested in how to crop and display your pictures, take a look at Mrs. Morgan's craftsmanship. It belies the belief that a photographer can't be a good editor. She designed the format, layout, typography and jacket and they are first rate jobs. Why can't we have more photographic books like this one? The answer possibly lies in her statement that the book "is the fruit of 15 years' experience with children's camp life, as parent and photographer."

STROBE—THE LIVELY LIGHT by Howard Luray, Camera Craft Publishing Co., San Francisco, 128 pp., \$4.

As Dr. Harold Edgerton, one of the pioneers of electronic flash, says in his foreword to this book, it will "help to fill a bothersome gap that has separated the photographer from the electrical engineer. . . This book will help in educating photographers and photo dealers and the general public on the so-called mysteries of electronic flash. Once the public is educated, it will grasp the applications and produce many outstanding accomplishments. Actually the electronic flash system is one of the simplest of electrical devices. . ." Luray's book is written in today's language, without any attempt to make a mystery of the subject with mumbo-jumbo. The emphasis is on the usefulness of the light source and its application to black-and-white and color photography. The disadvantages and advantages of electronic flash are discussed frankly and the author goes into exposure and development with thoroughness. This is one of the best photographic books to come along in quite a while.

UNIVERSAL PHOTO ALMANAC—1951, Edited by Ralph Samuels, Falk Publishing Co., New York, 260 pp., \$1.75.

Among the excellent articles in the 15th edition of this almanac are pieces by Ansel Adams, Jacob Deschin, Minor White, Ralph Samuels, Berenice Abbott, Beaumont Newhall and Martin Munkacsi. Among the better-than-average pictures reproduced are photos by Adams, Dan Weiner, Ray Shorr, Ed Feingersh, Abbott, Tosh Matsumoto and a portfolio of some of the best pictures taken by the photographic unit of Standard Oil Company of New Jersey (John Vachon, Esther Bublely, Sol Libsohn, Arnold Eagle, John Collier, Gordon Parks and Harold Corsini). A technical section and market guide make the book very useful.

THE MODERN EXAKTA GUIDE by C. Abel and Dr. K. S. Tydings, Greenberg: Publisher, New York, 124 pp., \$1.95.

The authors of this book have a remarkable enthusiasm for the cameras they describe. This enthusiasm and their assurance that they are giving an unbiased analysis of the four cameras discussed—Exaktas I, II and V and Exa—may be of service to someone wishing to consult literature before making up his mind about the proper camera to buy.

A person seeking information about the cameras, on the other hand, will find their descriptions very poor in practical content. He will find that there is not enough explanation as to why the Exakta is the right camera and the choice of photographers for specific purposes, nor do the authors differentiate sufficiently between the four cameras so the prospective buyer can decide which one he wants.

The Exakta owner will discover that the book does not contain the material he is seeking—the technical experience of tens of thousands of Exakta owners, information obtained only by using and handling the camera. He will find that this book does not help him avoid the trial-and-error methods of learning what to do and not to do, so painful to the new camera owner.

The reader has a right to expect when he buys a book called a guide to a camera that it will give him considerable information about the camera, based on the practical experience of others. This book contains no such material. It contents itself with no more than the basic material usually contained in a brief instruction booklet, stretched out to cover more pages in narrative style.

Inaccurate information also is given about Exakta accessories. Those manufactured by Ihagee Camera Works (the name of the factory, which makes the camera, is not mentioned in the book) are ignored. The giant release knob and rewind lever are pictured but not mentioned in the text, leaving the reader to guess at their function. Domestic-made extension tubes and microscope adapters are described, illustrated and listed in tables, but no consideration is given those made by the factory which also are available here and differ from the domestic ones. No mention is made of this.

The authors emphasize the wealth of accessories available for the Exakta, an indisputable fact, but neglect to mention that the Exakta excels because only a few accessories are needed except for highly specialized work. A tripod may be called an accessory for the Exakta in the same way as a jack can be called an accessory of an auto.

Another grave error in the book is the statement that the Exa is the basic reflex in the Exakta line. The opposite is true. The Exa is a simplification of the Exakta, to provide the snapshot photographer and the average amateur with the major advantages of the more expensive, refined Exakta.

The attitude of the authors, as indicated by this point, reveals that they are not aware that the Exakta has opened a new path in photography, something that more and more professionals are discovering every day. It reveals also that anyone who undertakes to write a book about the Exakta must first become familiar with the camera, use it and exchange his experiences with other users of the same camera to present material that will be useful and accurate.

In the chapters dealing with general photography, the authors, as might be expected from their backgrounds, contribute a wealth of erudition. It is a pity that they are limited in space and so can only discuss a few aspects. The reader would benefit more if the authors included a bibliography of important books with each part of the *Guide* to compensate for the brief coverage.

The external appearance of the book is pleasant but the pictures are definitely not. On pages 5 and 7, the pictures of the camera are fuzzy. The camera looks like it was photographed on a hairy towel. This carelessness is also obvious on the cover, where Exakta models I and II and the Exa are shown prominently, but the Exakta V, the latest model, is almost obscured. It is possible that the authors are not aware that models I and II are long-discontinued models, although used ones are still on the market.

It is also curious that the authors recommend on page 34 that Japanese lenses be used with the Exakta. The experience of *Life* photographers with these lenses is mentioned, but the authors do not elaborate with the information that *Life* photographers did not use Japanese lenses on the Exakta; that, in fact, the Nikkor lenses they used were on Nikon cameras, both Japanese-made, and that these lenses have not been available for any other 35-mm. camera, except one, and that one is not the Exakta. (Reviewed by Wolf Wirgin.)



This night shot of the U.S. Naval Hospital, Philadelphia, was taken by Dr. S. D. Malton, Brooklyn, with a time exposure. He set his Exakta on a tripod and exposed Super-XX film for 2½ minutes with his f 3.5 Tessar wide open.



Young shaver is son of Dr. Robert E. Horseman, Whittier, Calif., who used Tessar f 2.8 at 1/100, f 16, with No. 6 bulb.

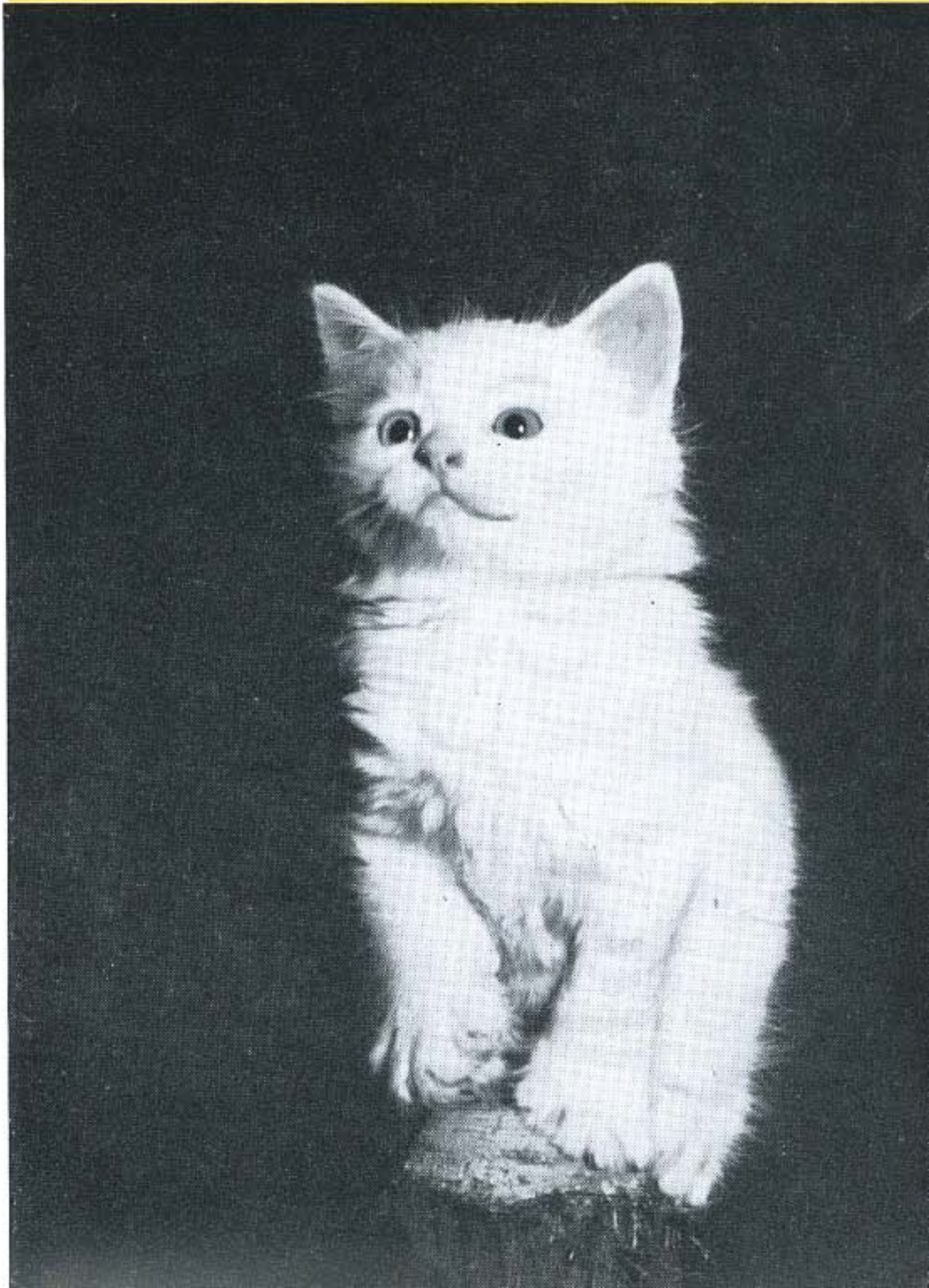
Exakta pictures

Readers are invited to submit photographs for this page. We will pay \$5 for each picture published. Photographs are acceptable in any size, whether your own printing or that of a photofinisher, but must be accompanied by complete technical information. If there are any persons who can be identified in your prints, a release signed by each individual authorizing the use of the picture in advertising must be included. Address pictures to George J. Berkowitz, Editor, Exakta, 46 West 29th Street, New York 1, N. Y. Include return postage.

Watching for an opportunity to make a sudden, dashing raid on unattended food, this "camp robber" shows no alarm at nearness of Peter H. L. Stuteville, St. Louis. Exakta was about three feet away, Biotar at f 2.8, exposure 1/150.



Hobart Freeman, St. Petersburg, Fla., got this charming shot on Plus-X at 1/50 sec., at f 22, with No. 6 flashbulb.



Exakta V...

*the miracle camera
that makes
photographic masterpieces*



Second printing now ready!

Jacob Deschin, Photography, Editor of *The New York Times*, says:

"A profusion of illustrations, diagrams and tables makes George J. Berkowitz's 4x6 inch, 188-page *A Complete Guide to the Exakta V* both practical and interesting. Moreover, the pictures are on a much higher level than the hobby type frequently used in such manuals. Other photographs illustrate correct methods of using the camera. Mr. Berkowitz covers the loading, focusing, handling and general operational details of the Exakta V and discusses the lenses and other accessories available for this single-lens reflex miniature. The major portion of the handbook, with a thoughtful foreword on the photographer's function in camera work, is devoted to chapters on black-and-white photography, lighting, flash, strobe and speedlight, filters, color photography, close-ups and photomicrography." Designed to fit your pocket, now available in two editions: paperbound, \$1.50, cloth-bound \$2.50.



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