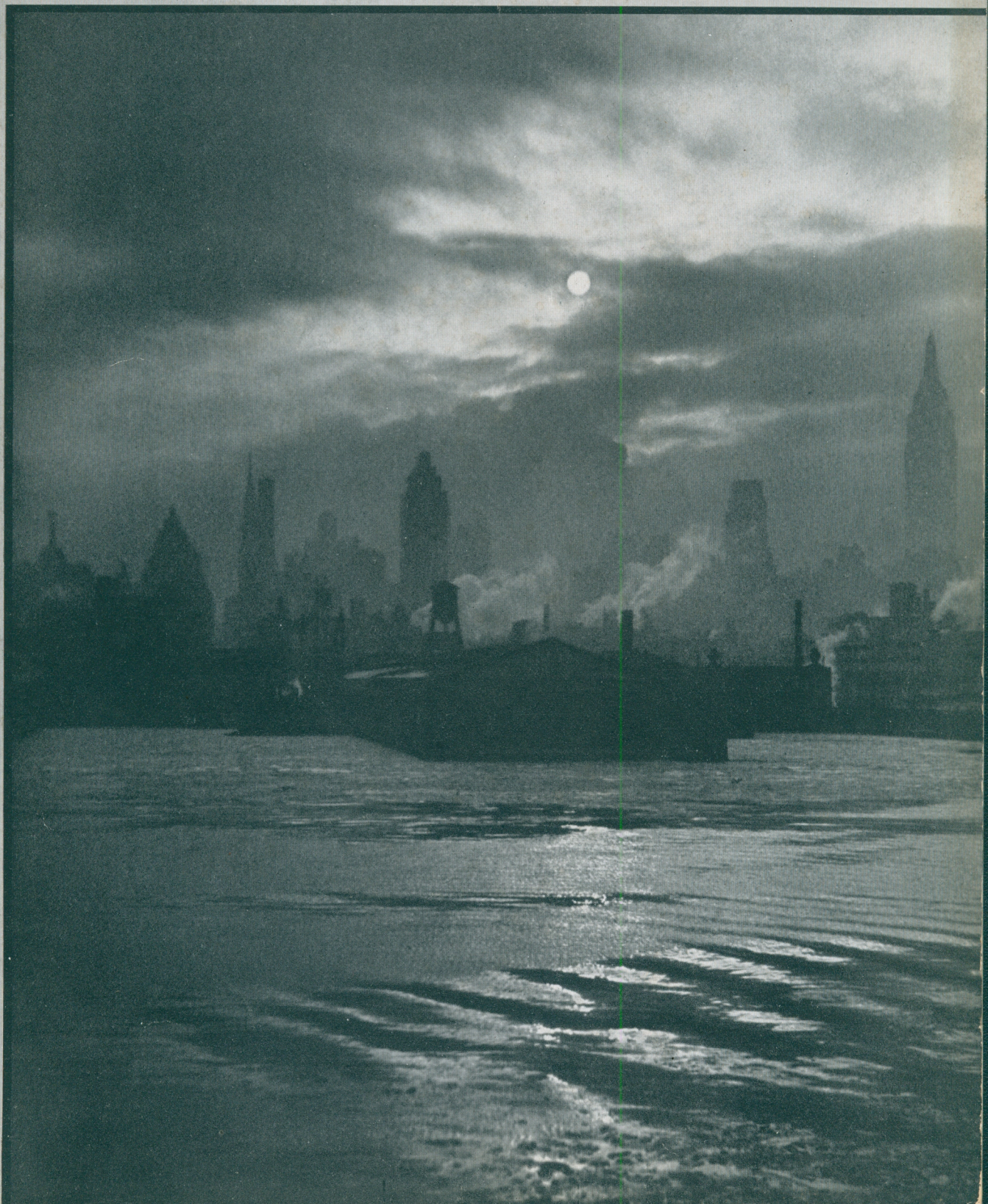
Zeiss MAGAZINE

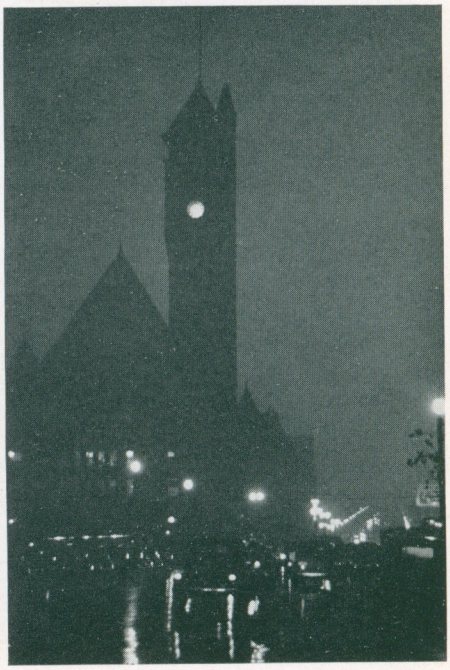
MARCH, 1938



10 CENTS
VOL. 4, No. 2

FIRST PRIZE
Summer Skies
E. M. DUNBAR

THIRD PRIZE
Night Scene
REX GARY



Zeiss Ikon Monthly Competition

FOR MARCH, the first prize award goes to E. M. Dunbar for his picture, *Summer Skies,* enlarged from a negative exposed in the SUPER IKONTA B with the TESSAR F:2.8 8 cm Lens, the exposure being 1/25th second at F:6.3 with the R-10 Light Red Filter. In using a filter, the darker the filter or the bluer the sky the more striking the results will be, and a light red filter such as the R-10 (used, of course, with panchromatic film) will produce very striking results. In this picture Mr. Dunbar has rendered well the spirit of a July day, and we can sense the noonday sun high up in the sky with its warm rays tempered by the breeze which is hurrying the clouds across the fields. The composition is an interesting variation of the "S" curve principle. Following the direction of the farmer and his team, we are carried back fortunately by a gently sloping darker border up to the break through the trees and into the sky. There our eyes meet the bold sweep of the main cloud only to be catapulted back into the picture by the sudden bold curve at the highest point. Thus, our first portion of the "S" formation, made up of lines which are practically horizontal, suggests the quietness and peace of a typical landscape, while the second variation depends on the accentuated curve of the cloud which gives us the feeling of graceful motion.

SECOND PRIZE
Canvas Mender
F. WEINSTABL

The second prize is awarded to F. Weinstabl for his picture, *Canvas Mender,* the exposure being 1/50th second at F:4.5 with a MAXIMAR A and TESSAR F:4.5 10.5 cm Lens. This is a straightforward simple photograph of an old man at work. (*Continued on page* 71)

H. W. JOHNSON

ZEISS MAGAZINE

Devoted to Zeiss Ikon Photography

VOLUME IV NUMBER THREE

MARCH, 1938

THIS MONTH

. . . the Fourth Annual Exhibition moves on to the Palmer House in Chicago from the 7th to the 12th, the Book-Cadillac Hotel in Detroit from the 17th to the 19th, and the Hotel Statler in Cleveland from the 24th to the 26th, all dates inclusive. The Exhibition will be open at each place, free of charge, from 10 a.m. to 9 p.m. with the exception of Saturdays when the hours are from 10 a.m. to 5:30 p.m.

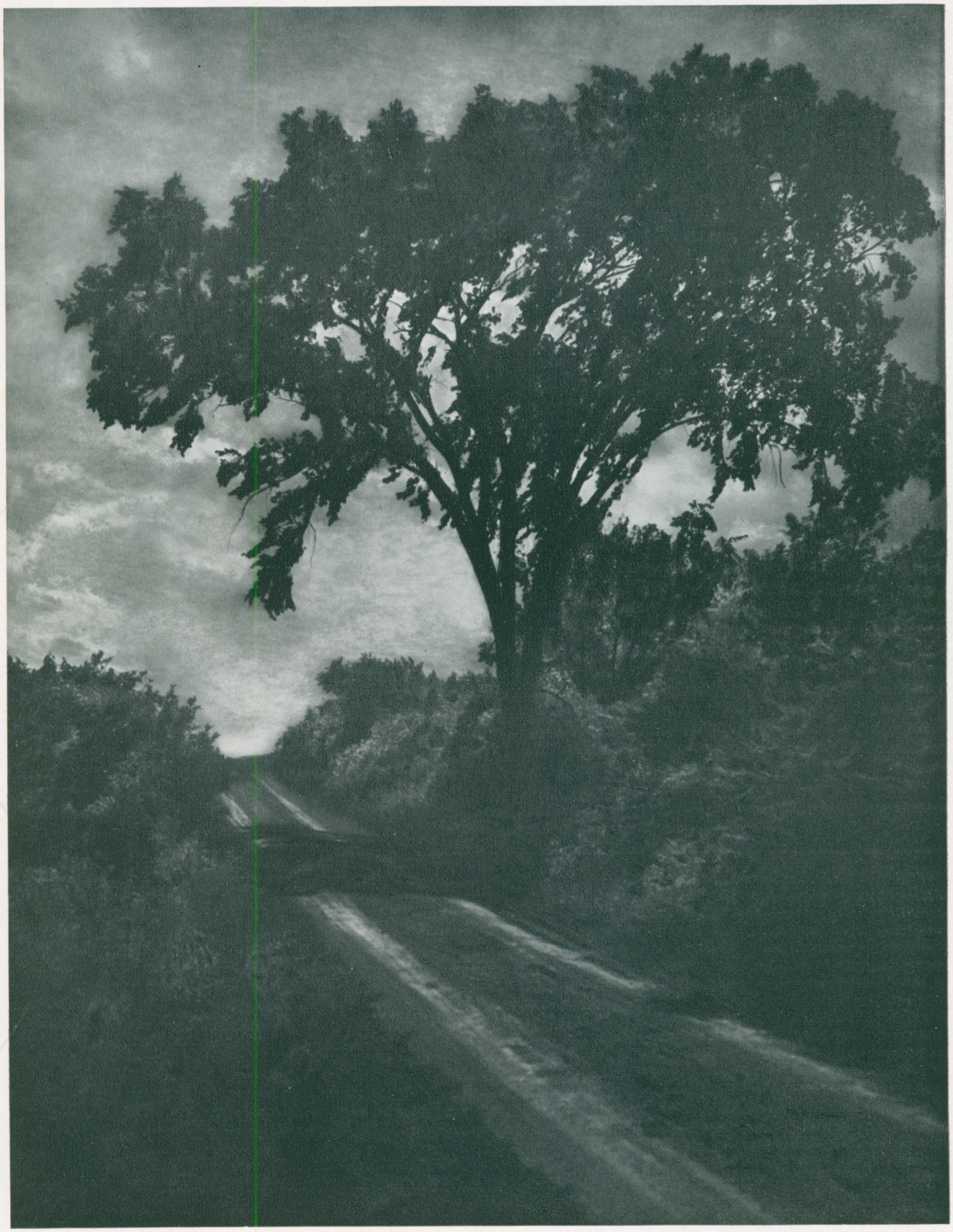
. . . the Story Behind The Picture departs from its accustomed trend in showing an outstanding press photograph involving considerable thought and originality on the part of its maker—Jack Layer, one of the leading press photographers. While the emphasis in this monthly feature will be primarily pictorial, other fields of photography will be considered from time to time. The readers of ZEISS MAGAZINE *are invited to submit pictures for consideration for this feature at regular rates, the story accompanying the picture to be of about one thousand words. Naturally, the pictures must be outstanding as well as technically good, and the story must comment on the picture, giving the reason for which it was made and how it was made.*

. . . and every month ZEISS MAGAZINE *will endeavor to bring to you that which is new or interesting in photography with special reference to its application or use with* ZEISS IKON *Cameras. Commencing in this issue is a series covering all phases of flashlight photography by Herbert C. McKay, F.R.P.S., and promised for the near future is a series by Jack Powell, famed Pacific Coast photographer and instructor. New materials, new processes, and new ideas are coming to the fore in increasingly greater number; these will be presented as authoritatively and interestingly as possible. In this respect, if you have something that is new and interesting—a new procedure or new application of your camera—why not contribute it to* ZEISS MAGAZINE *for the benefit of other photographers. Why? What? When? Where? and How? The same questions you would ask if you heard of the idea from someone else. Then include some illustrative photographs and send it along.*

Contents

Edited by Fenwick G. Small

ZEISS MAGAZINE, *Devoted to Zeiss Ikon Photography*, is published monthly by CARL ZEISS, Inc., at 485 Fifth Avenue, New York, N. Y. The subscription rate for the United States and Possessions is $1.00 per year; for all foreign countries, $1.50 per year. Single or sample copies, 10 cents in the United States and Possessions, 15 cents elsewhere. The Editor will welcome original manuscripts on photography with current models of ZEISS IKON Cameras, remuneration for which will be at the customary rate for photographic magazines. Unsuitable manuscripts will be returned promptly.



The Road Runs By . . . J. GHISLAIN LOOTENS, A.R.P.S.

IDEAL B *with* TESSAR *F:4.5 15 cm; exposure 1/100 at F:8 with G-1 Filter*

The Homecoming — J. GHISLAIN LOOTENS, A.R.P.S.

SUPER IKONTA A *with* TESSAR *F:3.5 7 cm; exposure 1/50 at F:8*

What is a Pictorial Photograph

J. GHISLAIN LOOTENS, A.R.P.S.*

WELL . . . what is a *pictorial photograph?* Have you ever tried to find the answer? If you want to start something, pop this question the next time your camera club gets together for a quiet meeting.

At first thought, you may believe a term used day in and day out is going to be simple to define. You might think the more a man knows about photography, the easier it is for him to give a concise and clear-cut definition. On the contrary, you will find that the experts can and do disagree, not only to the same extent, but with even more vehemence than the tyros. *Everyone* talks about a pictorial photograph, but it is practically impossible to get two people in agreement as to its exact meaning.

Suppose we buttonhole a friend well-versed in the technical phase of our hobby. "What is a pictorial photograph, Bill?" Bill ponders a bit, begins to look slightly bewildered, and finally winds up with, "I should say it is a landscape . . . a pastoral . . . something an artist might have done with a brush." Not bad, of course, but haven't we heard of a pictorial portrait—or even a pictorial candid shot? But, here comes Jim—what is his opinion? Thinks Jim, "It's probably a sentimental photograph which looks fuzzy and has been doctored up." But the minute he says this his expression shows that he is not quite so sure. Ed, who

*Instructor & Lecturer in Photography; Instructor of Photography: Central Branch Y.M.C.A., Brooklyn, New York; Chairman of Pictorial Committee and Group; The Miniature Camera Club of New York, New York City.

hears this, volunteers the idea it is "a beautiful picture," which leads a flippant listener to interpose, "Yeah, you know, a goody-goody." This demands further research, so Vera is quoted in her positive manner: "It is an interpretive picture—it tells a story." Bob dismisses the whole problem from his mind by saying, "A picture which will crash a salon." Still hopeful, I corner Andrew who thinks, "It should be dramatic and possess character." Our young friend, Howard, fresh from his thesis on architecture, a serious chap who uses the camera in his new profession, believes it is "a photograph which moves me æsthetically." A last chance remains—we'll tackle the Print Director. Being the club member whose duties are concerned with prints having a definite pictorial flavor, he ought to know the answer. He does know to his own satisfaction, at least, when he states: "It is a print I would hang on my own wall."

By now, we are quite ready to call it a day. Further inquiries will only confirm our previous feeling that it is impossible to find one meaning which will suit us all. On the face of things, our friend's answers seem to be quite different.

But, let us analyze their definitions a little more thoroughly and look a bit deeper than mere surface appearances. Do we not begin to note an actual similarity? A similarity, parodoxically as it may seem, which lies in the fact that all these answers *are different?* Would this not indicate that we are touching upon a distinctive personal problem of which each in his own way is aware? That everyone seems to recognize the fact that a pictorial photograph *should* differ from the ordinary picture . . . differ in the sense that it is *individual* in choice and treatment? That even our cynical friends, who call it "doctored up" and "fuzzy" are tying up the pictorial photograph with ambitions towards *personal* interpretation? That, in the last analysis, this would mean artistic leanings, because "art" in a sense is nothing but a way of letting others know how we feel about the world around us?

And *where* does this "art" or "interpretation" in an individual derive its source? To answer that we have to dig still deeper and go right back to Man himself.

Of the many things with which Man is blessed (or cursed, in the opinion of some who should know better) there are two powerful factors which influence life from beginning to end. These are a *love of beauty* and the *need for self-expression.*

A love of beauty is inherent in all of us; we are born with an instinctive feeling for beautiful things. Beauty, itself, is a term capable of a labyrinth of interpretations and meanings, for it may be defined as something which will satisfy the eye or ear, it may be intellectual, or it may be abstract. What it signifies to us will depend on our age, experience, and education. A mere babe will reach for the object which sparkles and glitters. The lover of music becomes completely enraptured by the harmonies of a symphony. Even if we have not given a conscious thought to the meaning of beauty, we are continuously letting the world know what it personally means to us. For we give ourselves away, so to speak, by the things we do, the things we wear, the homes in which we live . . . in fact, by everything in our lives. Beauty, in its deeper significance, is with us each hour of our existence.

Self-expression, like beauty, makes its appearance in many forms. We can point to the pouting youngster who finds an outlet for his brand of self-expression by kicking the cat or pinching his baby sister . . . to the man, his brain surging with the pulse of life, whose every moment is haunted by visionary characters pleading for a chance to take form, who will never be contented until he expresses himself by writing a book. Everyone of us, in a small or big way, *has* to find a form of self-expression *or be unhappy,* whether that form be running a big business and dominating people or knitting a sweater for others to admire and envy.

When these two factors—the love of beauty and the need for self-expression—become fused in one person,

Dismantled J. GHISLAIN LOOTENS, A.R.P.S.

IDEAL B *with* TESSAR *F:4.5 15 cm: exposure 1/10th at F:16 with G-3 Filter*

Gee! I wished I was seventeen J. GHISLAIN LOOTENS, A.R.P.S.

SUPER IKONTA C *with* TESSAR *F:4.5 10.5 cm; exposure 1/100th at F:8*

the outcome is apt to be almost anything from a new toothbrush to a pictorial photograph.

A pictorial photograph, thus, is one of the mediums through which a man can blend and find an outlet for these two strong influences . . . it is an expression of his feeling of beauty. The vague urge to take a picture, even in its elemental form, takes root from that rudimentary sense of beauty and the need for self-expression. The man who points his camera towards the setting sun or snaps a child's smiling face may not be aware of this, but these influences are at work within him. Through the camera he is trying to tell others what he saw and felt. The actual results from his effort may be disappointing and may fail to reach others. This failure may be due to inability to understand his own actions and how to make the camera see *through* his own eyes. Whether he will be successful in the opinion of others will depend on the strength and imagination of his feeling plus (*Please turn to page* 71)

Virginia J. GHISLAIN LOOTENS, A.R.P.S.

CONTAX *with* SONNAR *F:1.5 50 mm; exposure 1/50th at F:2*

The Story Behind the Picture

JACK LAYER*

Now—with the winter-sport's season ending, the last puck skidding across the ice, and the last ball dropping through the basket's rim—the camera's eye is on spring, and the news cameramen are focusing their lenses on spring shots of summer sports. Lenses that for months have stopped the swift action of basketball play and caught the gleaming flash of hockey skates on ice are now ready to capture the more verdant poses of golfers on the green, "Casey" at the bat, and tennis sharks serving fast ones over the net. The boys with the cameras are out in the sun again, basking at the spring training camps, ambling across the turf in the wake of a golf bag, or blinking the shutters at beauties in tennis shorts. The umpire's first call—"Play Ball"—is the signal for the photo editors to assign several men to the local baseball parks, for during the first few weeks of the season hundreds of stock pictures of the players must be made . . . pictures that will be placed in the files and referred to many times during the coming season. There must be many shots of each individual player, especially close-up and action shots at the position he plays. In the action pictures the fielder is usually leaping high in the air, the pitchers are winding up, and the leading batters are following through after a mighty swing at the ball. *Stock* is a good name for many of these pictures—a comparison of a majority of them, year after year, with those made in previous seasons would show an inevitable sameness except for the appearance of some new faces and dropping out of some of the old ones.

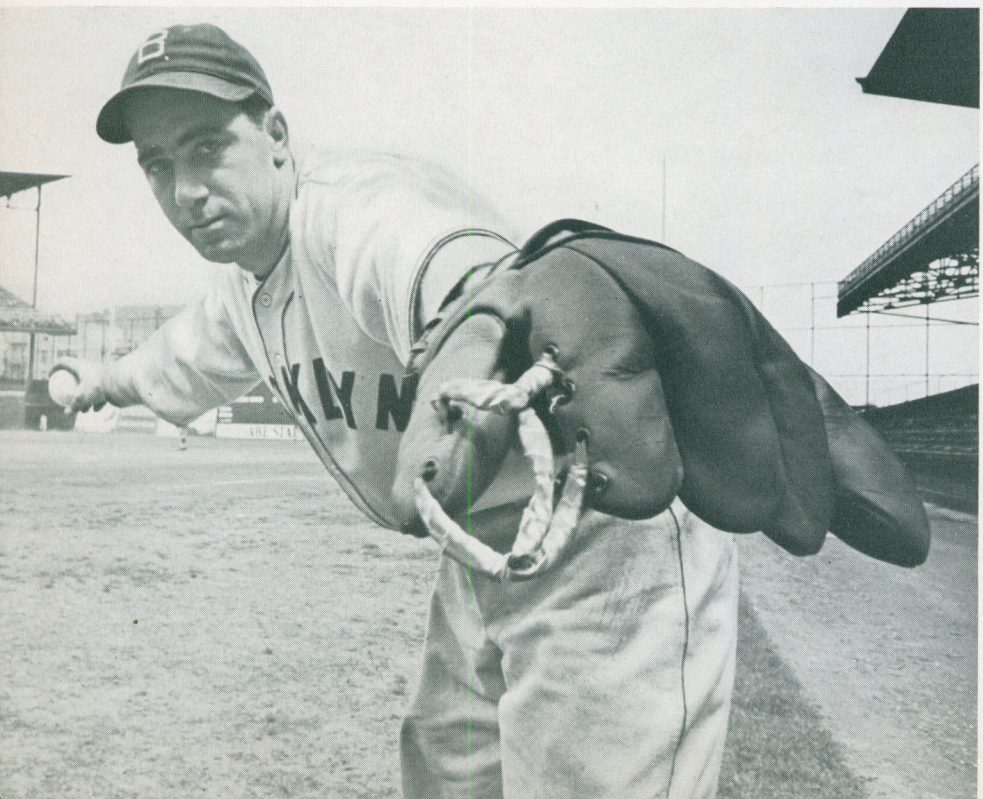
The veteran lensmen have this fact in mind and attempt to express in their pictures a newness in style and idea to add interest and avoid repetition. Many interesting shots have resulted from this endeavor, some of the best involving worm's-eye and bird's-eye views and other freak angle shots. With this thought in mind I was recently experimenting with a new wide-angle lens—the TESSAR F:8 28 mm—which had recently been fitted to my CONTAX. After a few experiments, I could visualize its grand possibilities, for I found that pictures way out of proportion, without distortion and with a tremendous depth of field, could be secured. Now, how to use this new equipment in securing baseball pictures that would be different, that would tell a story, yet would have the player doing that with which he is associated in the public mind and that would have his features recognizable.

My first stopping point with the newly acquired equipment was Ebbet's Field, the home of the Brooklyn Dodgers, where I secured a set of unusual pictures of most of the players at their respective positions. The ones of Van Lingle Mungo — one of the most effective pitchers in any league when he is in condition and right, and famous for his fast ball—were selected from among these because they show clearly the idea that is undoubtedly running through many an opposing batter's mind as he faces this speedball artist. *If only the ball looked that way, instead of this way, as it comes streaming over the plate.* When these pictures were submitted to the Sport's Department of the paper with which I am associated, the Editor, (always receptive of new

*Staff Photographer: New York Journal-American.

Van Lingle Mungo — JACK LAYER

— this way as it comes streaming over the plate.



Van Lingle Mungo JACK LAYER

If only the ball looked that way, instead of —

PICTURES REPRODUCED THROUGH COURTESY OF *New York Journal-American.*

ideas in photography) used the pictures with just that caption. Unusual pictures? Yes. But pictures that gain their value not only from their unusualness, but also from their excellent representation of this well-known pitcher and their story-telling quality—a story that is equally as well-known by the many thousands of fans who follow the fortunes of the various teams throughout the season.

The technical data: a CONTAX with the ZEISS TESSAR F:8 28 mm Lens—the diaphragm set between F:16 and F:22 and an exposure of one-tenth second on Super-X Panchromatic Film. When I got Van Mungo to strike the pose, the nearest object—his hand—was actually four inches from the lens. Framing was accomplished by means of the wide-angle finder for this extreme wide-angle lens, and focusing was done by means of the focusing scale on the lens mount, and the depth of field table for this lens, the setting being such that both the near and far objects would be sharply focused at the selected diaphragm stop.

When a photographer wishes to incorporate a new idea in a picture, he will find most baseball players more than willing to cooperate with him. And the CONTAX is likewise cooperative, for many splendid informal pictures can be made of the players during practice due to its versatility and flexibility. I use it ex-exclusively except where only a brief time is permitted to catch an edition, for this versatility and flexibility combined with its dependable focal-plane shutter enables the making of pictures that pay real dividends.

Flashlight Photography

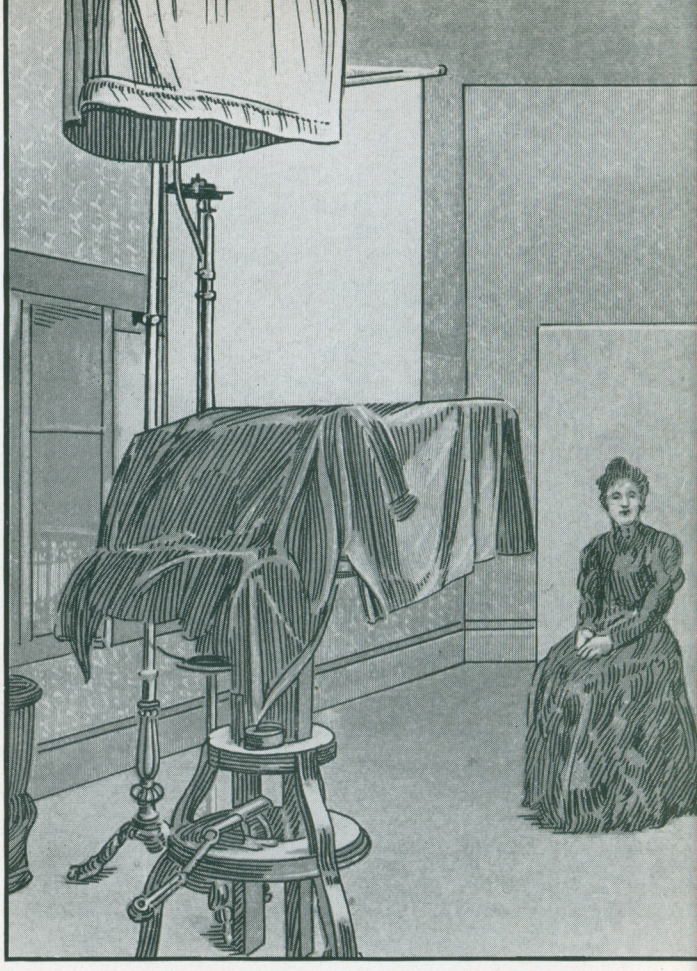
HERBERT C. MCKAY, F.R.P.S.

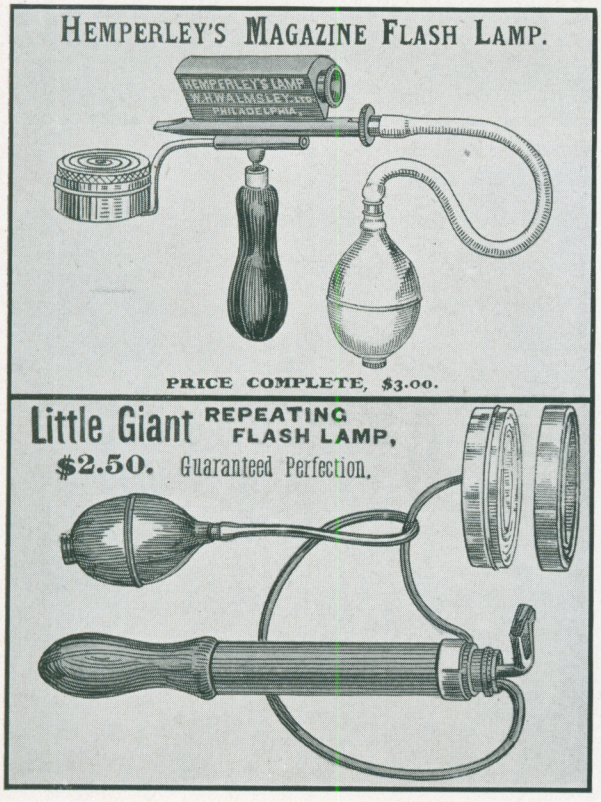
IN THE *Philadelphia Photographer* for February, 1869, there was printed a notice from which the following extracts have been taken.

"We have frequently stated that the time would come when the magnesium light would be available and useful in making photographic portraits, and after several experiments presented with our January, 1867, issue, the largest picture we have ever seen made at night. We were not wrong in this conjecture, and below describe a contrivance which seems to answer perfectly, and which is the invention of Mr. George K. Proctor, Salem, Massachusetts.

"It consists of constructing a room of such form that the rays of magnesium light placed within it will be reflected and concentrated upon the person to be photographed so that photography may be successfully performed at night by artificial light, or other than that of the sun.

"The room is of oval form, made of oak bows bent into oval shape and covered with paper cloth, which is hung on hooks inside the bows by large eyelets. It stands about six feet high, five feet wide, 6½ feet long and weighs about 35 pounds. An opening is made in the curved end of the room for the end of the camera to pass through. The other end of the room is open to admit the ordinary background for the picture. A kerosene lamp is used for focussing while the magnesium is fed by a clockwork lamp. This lamp has an indicator attached which may be set by the operator to show when the time necessary for the exposure has expired.





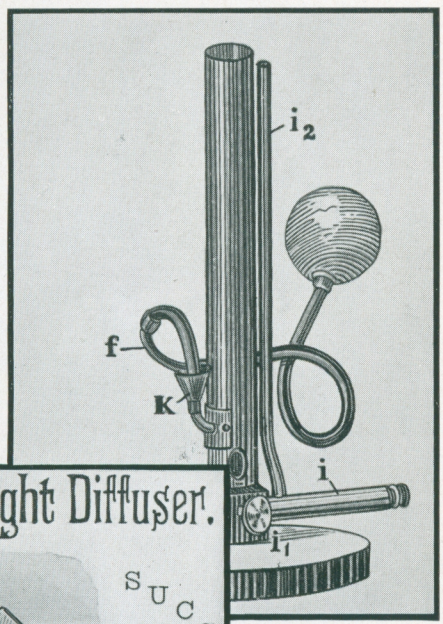
"We have not had an opportunity of testing the invention yet, though we hope to soon. Mr. Proctor declares that the best part of his *day's* work is done at *night*. He applies his invention to solar printing and copying as well. He tells us that the cost of making a negative is about nine cents for the light and the exposure is *cut down to fifteen or twenty seconds*. (The italics are ours.) This invention will certainly be a boon to those who cannot take time to have their pictures made in the daytime and to the photographer in unfavorable weather. We have very good pictures made by Mr. Proctor by means of his useful invention."

However this was long ago so we shall skip through the years, coming up to date, and see what the pro-

fessional press had to report in the year 1891. In the *American Annual of Photography* for that year we find reference to a flashlight studio in which the author starts with these words, "The manner of photographing by magnesium flashlight heretofore practiced by amateurs has proven to be of little practical value in professional studios, partly on account of inconveniences arising from the enormous volumes of smoke and from insufficient illumination of the subject."

The author continues to describe ways of removing the smoke from the studio and offers a description of several types of flashlamps of a type, by the way, which few amateurs of today know. A spirit lamp in combination with a magazine for loose magnesium powder in which a current of air is used to blow the powder through the flame. However, the author reaches a conclusion which may surprise many amateurs who have tried to work with flashpowder before the advent of the modern flashbulb. The paragraph referred to follows:

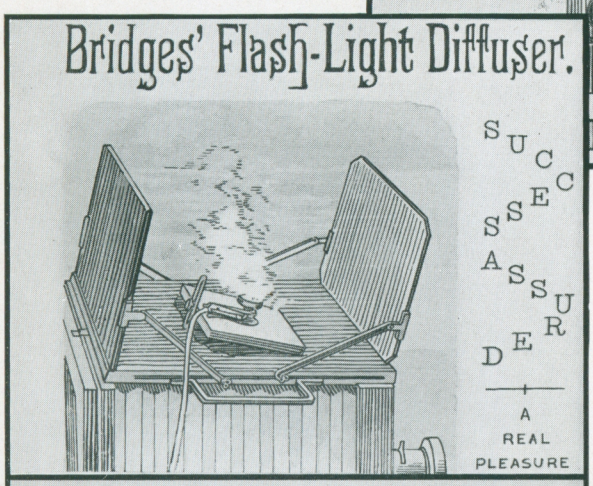
"To produce characteristic illumination of the subject, a division of the light source into single flames of known power becomes necessary. To illuminate with one lamp is always objectionable. With a number of simultaneous flashes distributed throughout the studio every desirable effect may be produced. With pneumatic connection of the several lamps by one pressure, two or three or even twenty flashes of light may be had at the same time and within a small fraction of a second."

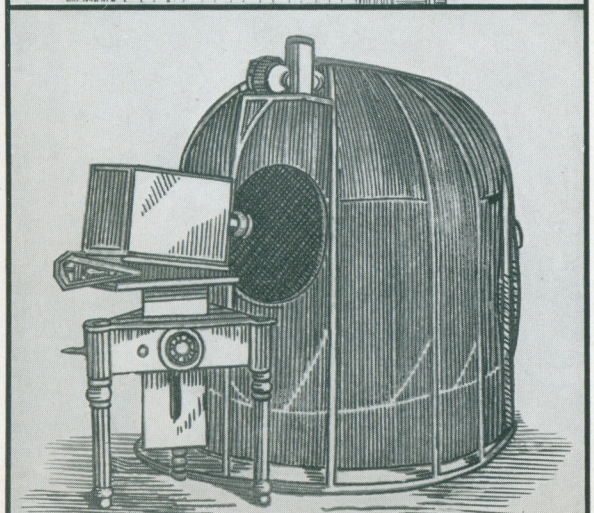


This writer also closes with the characteristic astounding (?) statement regarding the use of flashlight for photography. His closing statement is this

"Magnesium flashlight is used in my establishment for all kinds of work; for enlargements and for the making of positives, for reproduction, transfers and printing upon chloride or bromide of silver paper. We have, in fact, become entirely independent of sunlight."

In the advertising pages, among the interesting devices found is the Little Giant Repeating Flashlamp at $2.50. The advertiser states that these lamps give either continuous or intermittent light of great brilliancy. Nor were the photographers of that day ignorant of the value of diffusion for we also find a flashlight diffuser advertised in which the principal claim is that the tendency to blinking of eyes under flashlight is removed by the use of the appliance which so thoroughly diffuses and equalizes the light that all discomforts of posing by flashlight have been removed. Of course we are inclined to smile at the crudity of the equipment used by these old timers, and of course we must keep in mind that the flashlight referred to in these articles is not the flashlight ordinarily used just before the introduction of the flashbulb, but was a nonexplosive powdered magnesium. At least we must give them credit for making a sincere effort to obtain the results they want for as one writer remarked, " * * * the greatest difficulty one meets is taking faces by flashlight. The tendency being to obtain a weird and ghastly effect similar to that which the electric light gives in a ballroom."





Here again we must keep in mind that at this date the term "electric light" does not refer to our present convenient and universal incandescent bulbs but to the raw arc light.

However by 1901 the flashlight seems to be fully accepted for studio equip- (*Please turn to page* 70)


HOW TO SHOOT AN ARROW
MAKI
Photographs made with CONTAX sonnar f: 2 50mm


photographs by WILLIAM KARSTEN
NG THE BOW AND ARROW

Speed and Fine Grain

(Zeiss Magazine is pleased to be able to present to its readers this authoritative discussion on the characteristics, application, and handling of the new DuPont XL Film—now available for the Contax, Super Nettel, Nettax, and Contaflex in daylight loading spools—prepared by the Redpath Laboratory of the DuPont Film Manufacturing Corporation at Parlin, New Jersey. High-speed film retaining the fine grain and other characteristics of slower-speed greatly widens the scope of the 35 mm miniature camera, and the information given here will be of value and interest to those who wish to make use of this new film.—Editor.)

XL PAN, a faster panchromatic film developed by the DuPont Film Manufacturing Corporation in the Redpath Laboratories at Parlin, New Jersey, is now available at Zeiss Dealers in daylight-loading spools for use in the Contax and other Zeiss Ikon cameras using 35 mm motion picture film. Its speed and other fine characteristics will be found valuable in increasing the possible applications of these versatile cameras.

The speed of XL Pan has been increased over that of standard fast panchromatic films such as the well-known DuPont Superior to the extent that under ordinary lighting conditions either the exposure time may be cut in half—thus stopping motion more completely—or the diaphragm may be closed one full stop—giving a corresponding increase in the depth of field. However, the great advantage that this high-speed film gives the miniature camera user lies in the increase in the range of properly exposed pictures obtainable under difficult lighting conditions.

One of the best features of XL Pan is that it will give a normal type of negative, suitable for excellent enlargements, having good gradation, considerable latitude, and only slight increase in grain size—a combination of qualities not heretofore associated with high speed. The developing time is comparatively short for high-speed negative film, present tests indicating that for the recommended developers the proper time is about thirty per cent longer than that required for DuPont Superior Panchromatic in the same developer. Other desirable characteristics found in DuPont Superior are present in XL Pan, including a clear, non-halation base, and approximately the same color sensitivity.

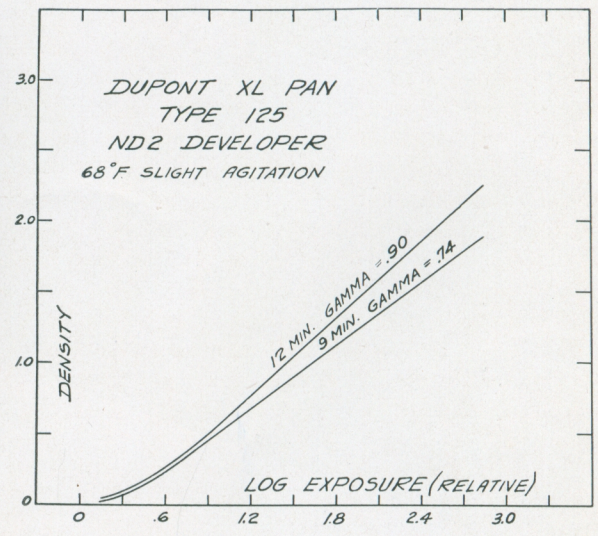
It is under those border-line lighting conditions, both with artificial light and daylight, where it is difficult or well-nigh impossible to obtain a picture with the usual supersensitive panchromatic film, that XL Pan will show to its greatest advantage. This includes many outdoor scenes during the early spring, late fall, and winter when the sun is obscured or low in the sky. XL Pan will work well with filters under these difficult conditions, and particularly so for those who are accustomed to working with DuPont Superior Film, as the factors* for the new film with Zeiss Ikon Filters are so close to those for Superior as to make no change necessary for all practical purposes. Continued testing of the film under a variety of conditions may lead to some minor corrections in factors which will be published in the future.

For indoor work XL Pan will be found ideal. The field of stage and sports photography will be found

*Cf. *Filter Factors for* Zeiss Ikon *and* Carl Zeiss *Filters:* Zeiss Magazine; *III* (1937), pp. 114 & 115 (*June*).

Same-size reproduction from portion of 10X-enlarged print made from XL negative exposed on dull day, showing gradation and fine grain.

Figure Three: ***Characteristic Curve of DuPont XL Pan Film with two different developing times in the ND-2 Developer.***



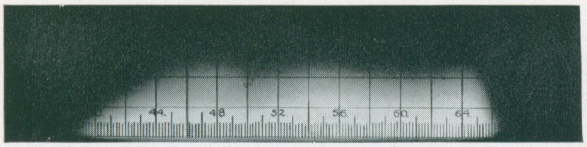


FIGURE FOUR: *Wedge Spectrogram of DuPont Superior Film (above) and XL Film (below) exposed to daylight.*

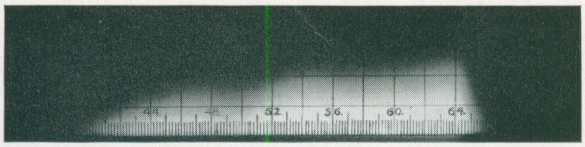
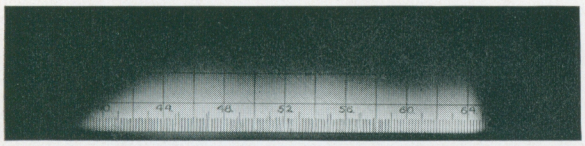
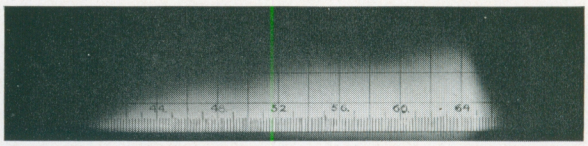


FIGURE FIVE: *Wedge Spectrogram of DuPont Superior Film (above) and XL Film (below) exposed to Tungsten.*





widened. Action may be more completely stopped without risking under-exposure. The photographer using his own lighting equipment may save on his lighting bills or obtain pictures previously impossible with his present equipment. As the film gives a normal negative and is, in fact, a development along orthodox emulsion research lines, the photographer is not required to learn new techniques or criteria of negative quality.

XL Pan may be developed in any recognized fine-grain developer, although it is recommended that the standard developers of the DuPont Film Manufacturing Corporation given herewith be used. The ND-2 is a par-speed developer, whereas the ND-3 is a very fine-grain developer, causing the loss of the equivalent of a half-stop in speed. Excellent results can, however, be obtained with many of the standard fine-grain developers now available, but, as suggested, the development time should be increased approximately thirty per cent longer than that required in the same developer for DuPont Superior. Should any question arise as to the proper development time with any particular developer, it is suggested that the manufacturer of that developer be consulted further.

The small grain size obtainable with XL Pan is most gratifying for a high-speed negative film. The photomicrographs shown in Figures One and Two give an excellent example of this feature in comparison with DuPont Superior Pan in raw stock. The sensitometric characteristics of XL Pan are illustrated by the characteristic curves shown in Figure Three. Note particularly the long straight-line portion with its direct indication of considerable latitude in exposure.

A word has already been said about color sensitivity in connection with filters and their factors. Figures Four and Five show wedge spectograms of Superior and XL Pan Film exposed respectively to daylight and to artificial light. As has been said, the color sensitivities of XL Pan therein correspond so closely to those of DuPont Superior to both daylight and artificial light that the factors for ZEISS IKON Filters* for Superior may be applied equally as well for all practical purposes to XL Pan.

As XL Pan is new, it is hard to predict to what extent it will be ultimately used. Present indications and (*Please turn to page* 70)

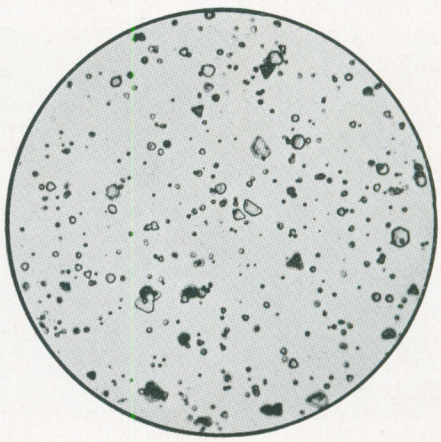


FIGURE ONE: 1000X *Photomicrograph of DuPont Superior Film Raw Stock.*

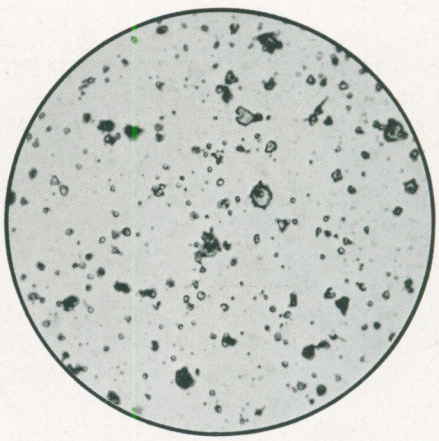
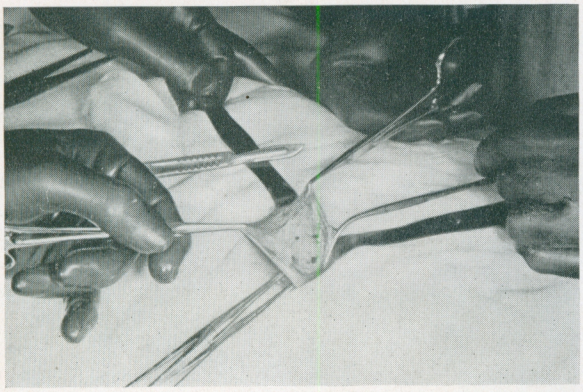
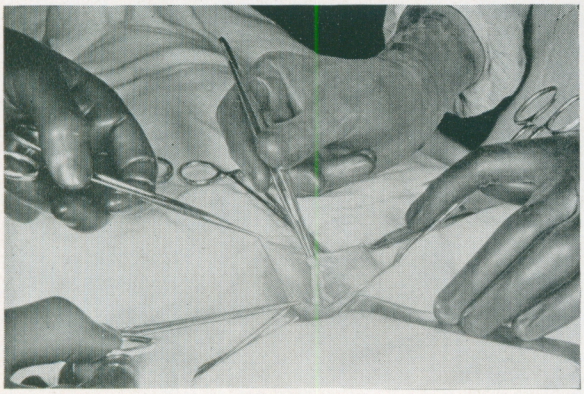
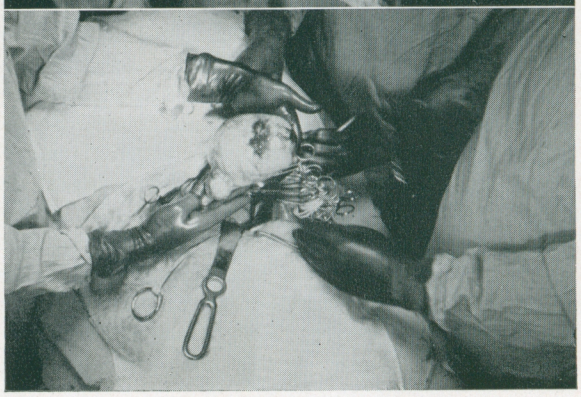


FIGURE TWO: 1000X *Photomicrograph of DuPont XL Pan Film Raw Stock.*







A comparison of the pictures above and below (reproduced from black-and-white enlargements made from Kodachrome Transparencies) taken with the CONTAX *and* CONTAMETER *with the three on the right taken with the* CONTAX *and* SONNAR *F:4 135 mm Lens shows the advantage of the smaller field of view In each case the entire negative area is shown*

All photographs by
FREDERICK J. MAISEL, A.B., M.D.

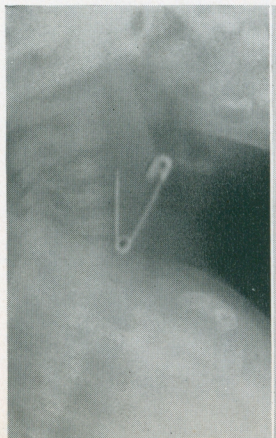
Medical Photography

FREDERICK J. MAISEL, A.B., M.D.*

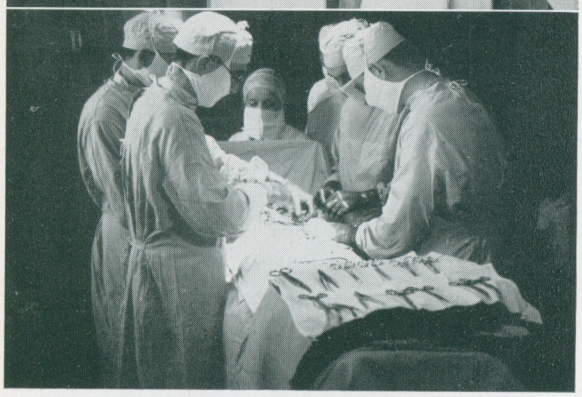
(*Continued from the February Issue*)

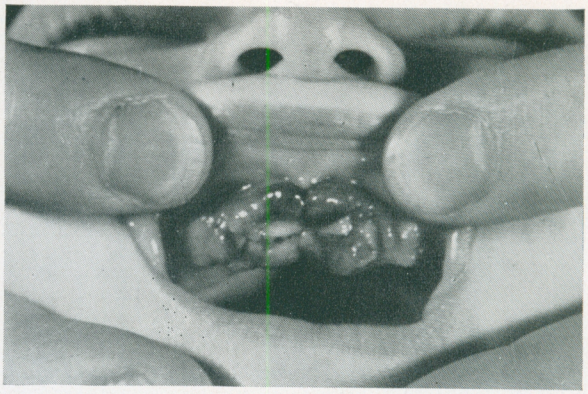
FOR MY work in color I have generally used the flash bulb and synchronizer with the CONTAX. In addition to the higher shutter speed and smaller diaphragm openings—giving better definition and sharp focus throughout the entire field — I have found that the flash bulb has less effect on the eyes of the surgeons, internes, and nurses in the operating room, provided they did not look directly at it when it flashed, than the photoflood bulbs. Furthermore, the intensity of the flash bulb is constant, whereas the intensity of the flood bulb will fall off as it is used on account of darkening of the inside of the glass. If the danger of bulb shattering is feared from the flash bulb, although not one out of hundreds I have used have shattered, it can be protected against by means of wire mesh fastened to rings which

Below are examples of pictures easily made with the CONTAX, *Reproduction Stand, and Light Box illustrated last month.*

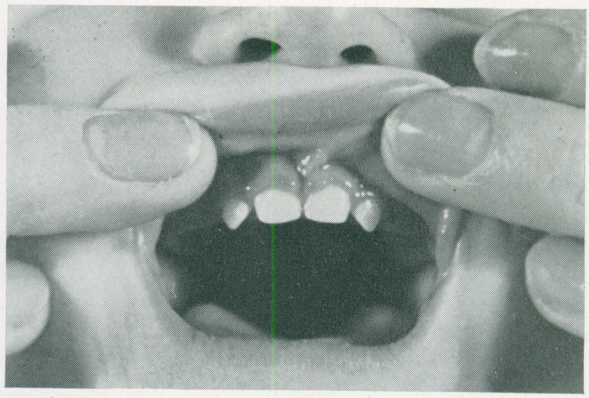


*St. John's Hospital, Brooklyn, New York.





Above and below are pictures of gums before and after treatment reproduced from pictures taken from the case history and made with the CONTAX *and* CONTAMETER, *showing the advantage of this equipment when the field of view is small. At the left are incidental record shots made with the* CONTAX *and* TESSAR *F:2.8 50 mm Lens*



reproduced by courtesy
ST. JOHN'S HOSPITAL

clamp over the reflectors. The protection, however, is a precaution which should be taken.

A record of the subjects photographed with the first four rolls of Kodachrome Film (eighteen exposures each) exposed with this equipment will show its possibilities and use in medical photography. Out of these seventy-two exposures a record was obtained of a complete Thyroidectomy, portions of a Hernia Operation, a Tonsilectomy, skin grafting, kidney operations, Colpoplasty, open reduction of fracture of the humerus, dissection of glands of the neck, and amputation of the breast—all in color, all while the operations were in progress, and in no instance was the surgeon delayed more than a few seconds while the picture was being taken. In addition, a gall bladder containing stones, a museum specimen in a glass jar, and the hands and feet of a patient in bed with gout were recorded. A total of six dozen pictures from the first use of the apparatus with color without a single blank. Naturally, they were not all perfect; that would not be expected from the first use of any equipment. Some were underexposed or overexposed because of no allowance in exposure for an unduly dark or light subject, some had the field improperly framed, and some were photographed from the wrong side or the wrong angle. But one only learns by doing, and the proficiency gained from the first six rolls has given a degree of success that is surprising and satisfying. Surprising because it was not expected at such an early stage, and satisfying because the pictures so obtained are in true natural color with large images sharply defined throughout the entire field.

A few technical notes. The synchronizer must be adjusted to the CONTAX shutter so at to work at speeds up to 1/500th second. This can be done by experimentation, but it is better to send the camera and synchronizer to the synchronizer manufacturer for such adjustment. A sunshade should be used on the lens, and if it is not of the screw-in type, it should be fastened to the camera, as will be seen from a study of the illustrations, to prevent it falling off into the (*Please turn to page* 71)

Landscape Photography

The Procedure for Snow

ANSEL ADAMS

SNOW PHOTOGRAPHY is not as difficult as some workers believe it to be, yet frequent complaints of failure suggest that a few basic facts are generally neglected. Let us consider a few of them as well as some of the limitations.

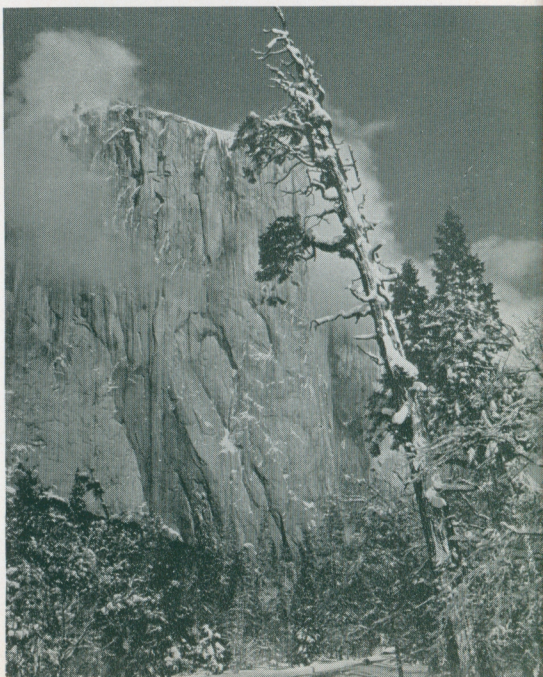
1. BRILLIANCIES

No photographic negative material is capable of reproducing the full range of brightnesses found in the average landscape, and these are much less than those of a snow-covered landscape in sunlight. In the print the limit of "whiteness" is the clear paper, yet this maximum obtainable whiteness is much less intense than that of sun-lit snow. We can never *literally* portray such intense values in a print. Accordingly, we must adjust the relative values of the photograph to gain the desired emotional effect. Inherently, snow is brilliant—white and scintillating. Nevertheless, it has *texture;* and texture properly photographed, indicates *substance.* In other words, there must be some apparent tone and texture to even the brightest parts of the image.

The emotional aspect of brilliant snow is conveyed in the print by the relative intensities of the deeper tones, not only in relation to the high-key snow image, but also in relation to themselves. For example, let us take a snowscape with three elements: snow, rocks, and

1 & 2. Winter Storm, Yosemite Valley. Left above with Zeiss D Filter and right above with Zeiss Ikon R-10 Filter, illustrating values from the use of different filters. In this instance my personal preference would have been the Zeiss Ikon G-4 Filter since its effect would have been in between the two examples shown. Unless spectacular effects are desired the G-4 Filter is admirably suited for such subjects.

3. Half Dome in Winter, Yosemite Valley. Below is a typical example of a snowscape of great contrast. The Zeiss L Filter was used with slightly reduced exposure.



trees. The snow is most brilliant, the rocks lie in the middle registers, and the trees are dark. The sun-lit portions of these objects may take the positions in an arbitrary tonal scale of 0 to 10 as follows: the snow—1, the rock—6, and the tree—8. Note that there is a greater separation between the snow and the rock than between the rock and the tree. Now, let us consider the shadow values of these elements. Their position on the arbitrary scale would be somewhat as follows: the snow shadow—2, the rock shadow—7 to 8, and the tree in shadow—9 to 10. In following this procedure, we will have effectively kept our snow values at one end of the scale, and our other values at the opposite end. The *actual* brilliancies of the subjects are not—and cannot—be reproduced, but the emotional effects are secured by the exaggeration of relative values and contrasts.

2. Color Values

There is no such thing as an absolute "white." The whiteness of snow is an illusion; the sun-lit parts reflect the predominant color of the sunlight at various times of day and under different atmospheric conditions. The shadowed parts are predominantly blue, and also reflect the colors of reflected light from surrounding objects. Dust and algae (red snow) must also be considered. A subtle adjustment of emulsions and filters is required to properly control the color values of snow.

Emulsions: The predominant color of snow shadows—blue—presents a difficulty when orthochromatic emulsions are used, as this type of emulsion tends to render blue light in a rather high value. Control can be secured by the use of filters, but more powerful filters must be (*Please turn to the following page*)

6. Landscape, Yosemite Valley. As there are no large dark areas the D Filter was used, accenting the small shadows and giving vitality to the picture.

7. Forest in Winter, Yosemite Valley. A typical example of a snow scene of great contrast. The Zeiss L Filter was used; a heavier filter would only deepen the dark tree trunks, obliterating detail.

4 & 5. Tree and Cliff, Yosemite Valley. These two examples—lower right facing page and below—illustrate a somewhat unsatisfactory treatment of a difficult problem. The Zeiss D Filter was used for each. On the facing page the correction of the sky is not enough to render emotionally the values of the cliff and sky. A Zeiss Ikon G-4 Filter would have been better. Below the correction of the sky is too great, for it blends too closely with the shadowed cliff. In this case a Zeiss L Filter would have been better.

8. Forest in Winter, Yosemite Valley. With the exception of a few small spots of sunlight this entire subject is in shade. The use of a stronger filter than the Zeiss L would help the brilliancy but little and would "block" the highlights.

(*Continued from page* 67) employed than with panchromatic emulsions which have an increased sensitivity to the other colors. With panchromatic emulsions of the "super" type the shadow values of snow are admirably rendered even with a very light filter (and proper exposure, of course).

FILTERS: Under varying conditions with panchromatic emulsions, the following filters will suffice for all general snow work that does not require severe distortion of values: the ZEISS L and D, and the ZEISS IKON G-0, G-1, G-2, G-3, G-4, and, occasionally, the R-10. I find that the ZEISS L and D Filters suffice for about nine-tenths of my work with the ZEISS IKON G-4 used occasionally and the R-10 very seldom.

EXPOSURE: It must be remembered that the effects of filters are influenced by the degree of exposure, and the serious worker must base his tests for his filters on a consistent degree of exposure. Everyone should make experimental tests in order to adjust emulsions and filters to his particular requirements.

DEVELOPMENT: This also profoundly influences color values. The contrasts of snow subjects being extreme, we must be especially careful not to over-develop. On the other hand, as there must be a satisfactory separation of tones throughout, we obviously cannot afford to under-develop. The proper degree of development for average sunny snow subjects should be *moderately soft*. "Blocking" of the highlights is the principal thing to avoid, especially in miniature camera work.

3. TEXTURES:

We have mentioned *texture* as essential to the indication of *substance*. We have also stated that the shadows of snow are predominantly blue. The visual texture of snow is derived from the juxtaposition of minute crystals and their equally minute shadows. I refer now to the granular effect of snow surfaces—naturally, the actual snow crystal is too small to record on the negative except when photographed very close. This effect of minute shadows and sun-lit points produces two dominant qualities in the image; one, a detailed granular effect, and, two, a general deepening of tone. As we increase the strength of the filters, this effect is exaggerated so that we can produce images of snow surfaces ranging from almost even, continuous whiteness down through logical relationships of values to grossly exaggerated values. The reader has undoubtedly seen such exaggerations of snow values with pale, lifeless whites and grays or harsh "flour-and-charcoal" effects. Needless to say, both are to be avoided.

Even with perfect color, exposure, and development control, the effect of texture can be lost if halation exists in the negative. Anti-halo, or "backed", negative material should be used in practically all cases. However, the halation effect is advantageous if the greatest part of the image is in shadow and it is desired to convey the illusion of great brilliance and flare on isolated brilliant points .Also, the optical system (both lens and filter) must be as perfect as possible. The image must be very sharp, and the glass surfaces must be clean. It is important that both the lens and filter be carefully checked for "misting" which is chiefly due to changes of temperature and warmth and moisture from the hands and breath of the operator. Great care must also be taken to prevent any trace of fog on the negative. Light-tight cameras, shutters, lens boards, and film holders are absolutely essential, and the darkroom and safelights must be carefully checked and tested. Finally, the use of textured papers in printing is obviously detrimental to the clear and precise rendering of snow textures. I use only glossy papers and prefer a clear black-and-white print tone.

4. WORKING SUGGESTIONS

NEGATIVE MATERIAL: Panchromatic emulsions of the fast type, such as Agfa Superpan, Eastman Supersensitive Panchromatic, or DuPont Superior, are advised, because:

1. They have a long foot to their characteristic curve, permitting relatively short exposures which assists in preventing "blocking" of the highlights and retaining shadow detail.
2. They have a more balanced sensitivity to blue light.
3. They are all obtainable with anti-halo backing.

This type of film is best for brilliant subject material. For photographing snow in shade, I prefer emulsions such as Agfa Finopan, Eastman Panatomic, and DuPont Parpan. The color sensitivity is about the same as the first mentioned films, but the resultant images are more intense and give greater vitality to the soft values of shaded snow. I see no advantage in using the extremely fast films except for action pictures when a very short exposure is required.

DEVELOPER: There is great argument on this subject. Personally, I prefer a Pyro or Pyro-Metol Formula with a reduced proportion of alkali. I find that I get a fine shadow quality with a maximum clarity of highlights. For miniature camera negatives I prefer DuPont ND-3 or Champlain No. 15. But, above all, avoid using developers of high contrast or with "blocking" tendencies.

EXPOSURE FOR SUN-LIT SNOWSCAPES: With the negative material suggested above, a slightly under-normal exposure is usually best. By "Nomal" I mean the indicated exposure obtained from an average meter reading of the entire subject. Never over-expose. I scale such negatives for normal or medium bromide papers.

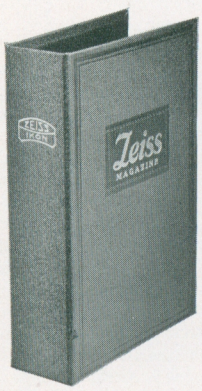
EXPOSURE FOR SNOW IN SHADE: This type of subject is the most difficult of all. The values (*Please turn to page* 69)

10. Rock and Snow, Yosemite Valley. The dark rock and white snow both retain values in this example. A stronger filter than the Zeiss L would have made the snow more brilliant but would have resulted in serious loss of detail in the dark rock.

9. Forest in Winter, Yosemite Valley. An example of a snow scene in shade. The use of Agfa Isopan Film and the Zeiss L Filter with full development gives good brilliance. The use of a stronger filter would not help—the values could easily become harsh.

Notes & News

A New Binder for Zeiss Magazine



In answer to the many requests of our readers who have wished for an inexpensive way of binding and preserving their copies of Zeiss Magazine, we offer the new and beautiful *Permo Binder* to fill this very definite need. The binder is easy to use and necessitates no punching or marring of the magazine. A click and the magazine is in . . . and with the patented construction of this binder any issue can be quickly and easily removed without disturbing the other magazines in the binder. In addition to its very practical use, the binder will permit you to keep your copies of the magazine on the library shelf with the same security and appearance as a bound book. The binders will each hold twenty-four copies—two full years—of Zeiss Magazine and may be had from your Zeiss Dealer for $1.50.

Autofocusing Close-up

If you own a Contax, Super Ikonta B, Super Nettel, or Nettax, ask your Zeiss Dealer to show you the Contameter, the Zeiss Ikon Optical Near-focusing Attachment, and study the possibilities it offers you in the field of hand-held, close-up photography. It consists of a supplementary combined range finder and view finder, three supplementary lenses, and three matched prisms for the range and view finder. In use the supplementary lens for the distance selected is slipped on the camera lens which is left focused at infinity, the corresponding shoe on the range and view finder is placed in the accessory clip on the camera, and the matching prism is slid into a collar on the range and view finder. The eye is placed at the eyepiece of the combined range and view finder, the camera moved back and forth without moving the focus of the camera lens from infinity, and when the images are superimposed, the entire field included in the finder is that covered by the lens. A valuable accessory for use in photographing small objects, whether still or in motion, for the camera can be hand-held with automatic focusing, allowance for parallax, and the near-focusing distance is approximately eight inches. With the 35 mm cameras the smallest field covered is 4¾"x 7¼", while with the Super Ikonta B the smallest field covered is 4¾" x 4¾". Be sure to ask your Zeiss Dealer to show you the Contameter and explain its operation.

Zeiss Focusing Magnifiers

A good focusing magnifier can play an important part in the photographers kit. As an aid in focusing on ground glass or examining negatives they are invaluable, and a good worker can frequently spot a pinhole in a negative with a fine brush and a strong magnifier. In focusing on ground glass the use of a magnifier can be made more effective by making a fine pencil cross mark on the ground surface of the glass, then cementing a microscope-slide cover glass over it with Canadian Balsam. The focusing magnifier is then focused sharply on the pencil mark, after which the camera is focused on the subject and the sharpness of the image watched through the focusing magnifier. Recommended for this purpose are the Zeiss Aplanatic Magnifiers which are available in magnifications of 6X and 10X, and in helical focusing mounts and sliding sleeves. The magnifier with the helical focusing mount is illustrated; this is focused by turning the upper knurled collar, and when in focus, is fixed in position by screwing the lower knurled ring down tightly. The magnifier in the sliding sleeve is provided with a millimeter scale so that once its position has been determined it can be quickly reset. Ask your Zeiss Dealer to show you these focusing magnifiers or write to us for descriptive literature.

Landscape Photography

(*Continued from preceding page*) are very close and very hard to represent without unpleasant exaggeration. The use of slower emulsions is advised, and the resultant negative should have good density. I would suggest normal exposure and *full* development with the use of a filter such as the Zeiss L. Without a filter the snow might be too flat; with too strong a filter both the detailed and massive values can be easily exaggerated. The image of shaded snow must be "alive"—a feeling of *light* must exist in every part. In printing from such a negative, I find that minimum exposure and maximum development of the print (on glossy paper) gives the most satisfactory results. For this type of work I usually scale my negative to a medium grade of bromide paper, although I will often use a contrast grade.

Exposure for Snow and Sky: Clear sky is always much deeper in tone than sun-lit snow. The relationship must be satisfactorily controlled by the proper use of filters and the proper exposure. Sunlit snow against clouds is an uncertain problem. I prefer to use only moderately strong filters, as a strong filter would tend to raise both snow and clouds to a degree of brilliancy which could not be separated in the print.

Exposure for Snow and Dark Objects: Trees, rocks, buildings, etc., in a sun-lit snowscape must be considered with great care. It is unfortunate to have the snow and snow shadows nicely rendered with the darker objects harsh and lacking in detail and texture. Compromise is necessary, and only experience can dictate the procedure in such cases. If any rule is to be followed, it is this: expose so that the darkest important subject value will be rendered with tone and texture, and, if doubt exists as to the rendering of the complete value scale of the subject, give a softer development. *This is of the greatest importance when working into the light.*

Direction of Light: As the direction of the light may be high or low, back of, to the side, or in front of the camera, it is obvious that an almost infinite variety of effects confront the photographer. Light of a low angle, or light coming more-or-less into the camera, produces strong textures. Relatively low-power filters are advised under these conditions. "Flat" lighting indicates the use of stronger filters. This is only a generalization.

Reflections: The use of a lens shade is advised whenever possible. There is a great amount of reflected light coming from all directions that can cause serious trouble when working in snow.

(*To be continued in the April Issue*)

FLASHLIGHT PHOTOGRAPHY

(*Continued from page* 59) ment, for in the *American Annual of Photography* that year we find two full page advertisements for a flashlight apparatus selling for $75.00.

Among the advantages claimed for the 1901 variety of powder is that it can be used with equal success in poor daylight as well as at night; in an instantaneous flash; does not ignite by friction or concussion; produces no spark; and leaves no odor. Any mention of smoke is conspicuous by its absence, however. We find still another page devoted to magnesium cartridges for taking pictures in the evening or in the dark, and characteristically enough the advertisement is headed "daylight at night."

We might proceed to trace the humor to be found in such advertisements from year to year but it is hardly worth while to do so. Instead let us jump over more than a quarter of a century and examine the American Annual for the year 1928. After all this was only ten years ago, and we find that the volume is given up to such subjects as the use of large aperture lenses, color plate photography, starting the motion picture amateur right, amateur movies and still photography, hypersensitizing plates, and similar subjects which might just as well appear in the current issue of an annual publication. We find the advertisements refreshing the interest in amateur motion pictures and in miniature camera photography. Among the advertisements we find the portable carbon arc advertised for photography, the "T" type of incandescent bulb, and an advertisement of Victor Flash Powder and the Caywood Flash Lamp. The statement of the advertiser is that the combination of the lamp and powder "will solve your exposure light problem. Produces at anytime, in any location, a soft, powerful light which you can regulate in volume and direction to suit the nature of your subject. A few grains of powder, a pull on the trigger of the gun, and your exposure is made."

It would seem that the interest of the amateur and professional alike has, for years, been to overcome the handicaps imposed by poor light. Solutions of this problem have been brought to us from three directions. The manufacturers of lenses have been turning out camera optics which are increasingly larger and larger in aperture, yet very little, if any, quality has been sacrificed to this increase. The manufacturers of photographic emulsions have been stepping up the sensitivity of their products from year to year and almost from month to month. In spite of the fact that we are resigned to accepting certain shortcomings in an emulsion to obtain supersensitivity, recent developments have resulted in emulsions which are not only a great deal more sensitive than any heretofore obtainable, but have also a very definite advantage in quality itself. The third advance has of course been that made in the line of illuminants.

Within the memory of a very large number of photographic amateurs three sources of independent illumination were available to the amateur. The simplest was a little metal case of such size that it could conveniently be carried in the vest pocket; which contained a roll of magnesium ribbon. A piece of this ribbon was pulled out to the desired length, ignited by a match and permitted to burn with the characteristically brilliant light of magnesium. This device which provided illumination at any place indoors or out was necessarily a "time" device for even a short piece of the ribbon would require a second or so for burning. Another independent illuminant was the flash sheet sold to amateurs throughout the world up to a comparatively recent time. These sheets were cut in standard sizes and were not dissimilar in appearance to a small piece of bromide paper with a granular surface. They were pinned against some noninflammable background and one corner ignited by a match. The sheets then flared up, giving an intense but comparatively soft light lasting for a second or two. These sheets were extremely popular with amateurs as they were comparatively safe yet did make an entirely practical illumination for the purposes of the amateur photographer.

The third illuminant was the conventional flash pistol. This was merely an igniting device of some kind or other which made use of the highly explosive magnesium flashpowder. The great objection to this illuminant was its explosive nature. There are many cases on record of serious injury being inflicted by the use of such powder including one newsphotographer who, using a pistol at the end of a long rod so the lamp could be held above the heads of a crowd, had the handle of the pistol forced clear through the palm of his hand by the explosive violence of the flash. Flash powder was inclined to clog into lumps when subjected to the slightest dampness, and lumpy powder when ignited would burn more slowly. The loose dry powder would blow these flaming lumps of burning material in all directions and anything upon which they alighted, including human beings, were very seriously burned.

Of course any magnesium preparation burns with a cloud of dense white smoke and some unpleasant fumes. In addition to these light sources, the professional portrait studios continued, up to a comparatively recent date, to make use of the magnesium blow lamp which was the earliest form of flash, in which a current of air blows powder through a spirit flame.

Of course many devices were invented to overcome the smoke of the flash, and among the most successful of these were the so-called flash bags. These were bags of a lightweight, white cloth which had been subjected to a thorough fire-proofing treatment. The bags were supported on small metal stands not unlike those used today to hold photoflood reflectors. The gun extended through one side of the bag so that an external control was available or in some cases a pneumatic trip was used. The cloth with its fireproofing acted more as a screen than a diffuser so it was necessary to use much more powder than would ordinarily be necessary under the circumstances; but the bags did eventually trap the smoke and remove one of the greatest nuisance objections to the use of flashpowder.

One of the last innovations to be offered to the photographic public in the way of flashlight powder was an imported flashbulb. This was a glass bulb which in general appearance resembled the early radio tube, both in size and general shape. Provision was made for a contact at the base of the tube so the powder could be fired electrically. A small quantity of a so-called smokeless flash powder was inclosed inside the bulb together with the necessary firing primer, and this bulb was used in a manner quite similar to the present day highly efficient flashlight bulb. Of course such a thing as synchronization was not dreamed of even with these powder bulbs. Over the period of 65 years from 1865 to 1930 the value of magnesium light was recognized at all times, but the advances made in the technique of its use were practically nil as compared with the rapid strides which have been made in the technique of flashlight photography since the introduction of the modern type of photoflash bulbs.

In our next article we shall discuss the photoflash bulb from its introduction up to the present time including some of its more important characteristics.

(*To be continued in the April Issue*)

MEDICAL PHOTOGRAPHY

(*Continued from page* 65) field of the operation. Type A Kodachrome Film should be used. With photoflood illumination no filter is needed. If flash is used for illumination, the filter selected by the Editor of this magazine, known as the Chromeflash Filter*, should be used. For best results, the supplementary lens should be placed on the camera lens first, then the filter, and then the sunshade. The flash bulb I use has a colored spot on the end; when this spot is blue, the bulb is safe, but when it is reddish-pink, the bulb should not be used, for it will surely explode. Even so, the precaution of a wire mesh over the bulb as previously outlined is recommended. Wiring of the bracket should be done carefully to prevent sparking or premature flashing of the

*Obtainable through your ZEISS DEALER from Fish-Schurmann Corporation, New York, N. Y.

bulb. In the operating room near mixtures of explosive gasses, such as Ethylene and Cyclopropane, the utmost care should be taken at all times, for the consequences of carelessness are obvious. As stated, the surgeons and assistants should be cautioned not to look at the bulbs, as the intense light may be irritating to the eyes or produce momentary blindness; otherwise no eye difficulty will be experienced.

Work as close as possible to the subject; with practice in not breaking operating-room technique and the demonstration of results, the surgeon will permit approach to within eight inches of the operative field, where the image reduction is about one-fifth the size of the subject. With photoflood bulbs the exposure will vary depending on the age of the bulbs and the strength of the lighting current; it is best determined previously with a photoelectric exposure meter or by experimentation, and once determined for the various distances should be fairly constant. With two No. 2 Superflash Bulbs, Kodachrome A Film, and the Chromeflash Filter, I have found the following exposures satisfactory: 1/125th second at F:22 with the No. 50 (20″) CONTAMETER Lens and 1/250th second at F:22 with the No. 30 (12″) and No. 20 (8″) CONTAMETER Lenses; with very light subjects the shutter speed should be doubled and the diaphragm index be set half-way between F:16 and F:22, while with very dark subjects the shutter speed should be that stated but the diaphragm index be set half-way between F:16 and F:22.

The further desirability of the CONTAX is shown by the fact that it is not restricted to general use in close-up work from eight to twenty inches. If it becomes necessary to cover a larger field of view, the CONTAMETER can be removed and the CONTAX be used at distances from three feet up with sharp focus quickly and accurately secured with its built-in range finder. At these distances the bracket can still be used with the choice of flash or flood and color. A special medical stand is available, illustrated herewith, which can be used in the clinic, operating room, private room, or ward, where it is necessary that the camera be rigidly and accurately held in a predetermined position.With this device the CONTAX is attached to a micrometer focusing slide fastened to a horizontal arm swinging on a heavy, rigid upright. The CONTAX is swung out over the bed or table, the subject framed and focused, and then swung back; when pictures are to be taken, the CONTAX is again swung out over the bed or table, a previously set ratchet stopping it at the identical place at which it was previously focused. If photomacrographs beyond the range of the CONTAMETER are desired in the Pathological Laboratory, the CONATX can be fastened to a reproduction bracket and upright over a light box as will be seen from the illustrations, permitting image reductions of from one-half to one-fourteenth that of the subject. Since these images can be enlarged from ten to fifteen times on paper, and up to six by nine feet on a screen, very small subjects easily can be enlarged tremendously for study, record, and lecture purposes. Even in the field of photomicrography this small camera is not found deficient, for with the MIFLEX Attachment it can be used with any standard microscope for making photomicrographs in either black-and-white or color.

This article has been presented in the hope that the recording of a serious attempt to obtain medical photographs of value will be of benefit and interest to other physicians likewise interested in obtaining good medical photographs. It is further hoped that the reader will not gain the idea that all he has to do is secure the equipment and be immediately assured of the finest results. There is no field allied to medicine, there is no instrument used in medicine, in which, or with which, practice and experience is not a prerequisite to success. Practice with gross specimens before use on moving objects is suggested, and when the apparatus is first used in the operating room, it is suggested that the less difficult operations be attempted. But it is surprising what proficiency can be gained with a small amount of practice. From then on, the degree of success attained will depend on the forethought and experience brought to each job attempted.

WHAT IS A PICTORIAL PHOTOGRAPH

(*Continued from page* 55) his technical ability to crystallize all this in a tangible form on a piece of paper. In exact proportion to *what* he has to express and the *ability* to express it, so will be measured his success as a pictorial photographer.

The futility in identifying a pictorial photograph by subject matter is thus evident. Seen through the eyes of a sensitive mind, a common roadside weed may stir a deeper emotion than the cold, proud orchid. The smeary, oily machinery of a thoughtless world may become a symbol of man's struggle for better things. The glory of an every-day sunset may have the power to bring us just a bit closer to the riddle of the universe.

Nor can we identify a pictorial photograph through the manner of treatment or the process. It can be fuzzy or sharp, sentimental or cynical. It can be a warm bromoil or a black-and-white bromide. Misonne's lovely, wistful visions of the dawn are fundamentally no different from Steiglitz's wire sharp declarations of form and texture, and both spring from the same elemental sources. Both men are decidedly pictorialists . . . it is simply that each one interprets the world to us in his own inimitable manner.

And may I offer a suggestion in case you are privileged to view some one's first attempts at pictorial photography? Even if everything seems wrong to you—both conception and execution—be careful as to your manner of criticism, or you may either inflict a deep wound or make a deadly enemy. You should realize that these pictures are not just a doubtful manifestation of the possibilities of optics and chemistry . . . they are the first illegible efforts of a mind to say what it feels and sees. One of the reasons why there can be such strong words among photographers, whether beginners or old-timers, is the failure to recognize that in each picture there is a little something of its creator. To criticise a picture in a thoughtless or cruel manner is to so criticise the personality who made it. Never forget the human values present in a picture, whether it be a grand landscape without a flaw or a terrible shot of Paul's pet pooch.

SPEED AND FINE GRAIN

(*Continued from page* 63) acceptance show that there will be a large field for it in news photography, stage photography, and under other conditions where the amount of artificial light is limited. Also for outdoor work in the early spring, fall, and winter under conditions where it is desired to stop motion more completely or to increase the depth of field beyond that otherwise attainable with correct exposure and a shutter speed that will stop motion.

THE MONTHLY COMPETITION

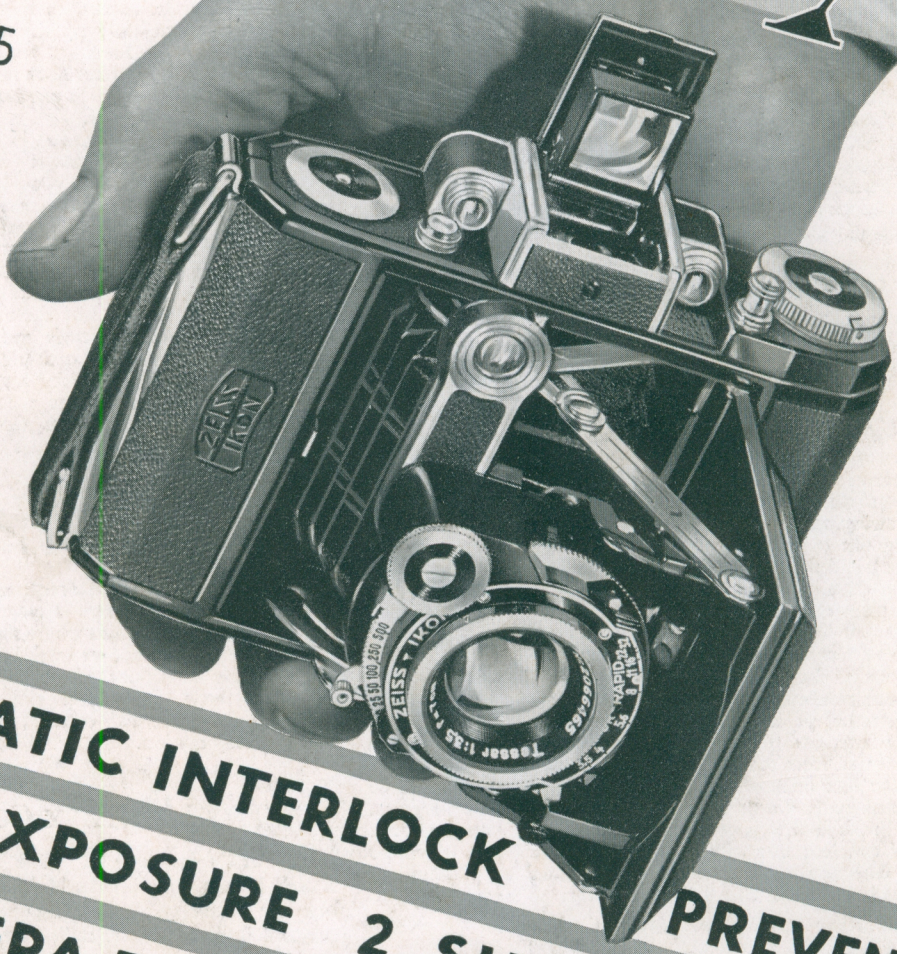
(*Continued from page* 50) The appearance of the figure is well in keeping with the background and general setting, even the lack of brilliancy being appropriate. The linear composition is based on the radial form with the hub centered around the hand resting on the canvas. If imaginary lines are drawn from the four corners of the picture, we will immediately see how the important outlines of the photograph follow this general outline with the center receiving the greatest emphasis.

This third award for this month is won by Rex Gary with *Night Scene* made with the CONTAX with the SONNAR F:2 50 mm Lens at an exposure of 1/10th second at F:2 on the new Agfa Ultra Pan Film to secure the negative from which the print was made. The combination of these new films with the high-speed ZEISS Lenses makes it possible to secure pictures of a type undreamed of only a few short years ago, of which this interesting night picture is an excellent example.

The Autofocusing

SUPER IKONTA A

NEW MODEL
with
TESSAR F:3.5
7cm LENS *and*
MANY NEW
ADVANTAGES



1. AUTOMATIC INTERLOCK PREVENTING DOUBLE EXPOSURE

2. SHUTTER RELEASE ON CAMERA BODY

3. NEW ALBADA VIEW FINDER

4. FILM WIND INDICATOR

5. 1 TO 1/500 SECOND SPEED RANGE

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