

## PICTURETAKING

At Minut

# Picture Taking



## AT NIGHT...

### IT'S SO EASY to make pictures at night. Picture taking is no longer

confined to the sunny days. With Photoflood Lamps and the Kodaflector or with flashlight you can now make pictures any time, anywhere; indoors or out. There are innumerable pictures that can be made after the sun goes down; portraits, campfire scenes, fireworks, moonlight pictures, lightning flashes, lighted streets and squares, illuminated buildings, floodlight effects, interiors electrically lighted, table top studies, greeting cards and fires are but a few of the opportunities for striking and effective pictures that can be made after the sun has gone down.

For the best results when taking pictures at night, use the Kodak Super Sensitive Panchromatic Film. When photographing colored objects, this film reproduces in black-and-white the correct color *values* of the subject. It is three times faster, by artificial light, than Kodak Verichrome Film.

Kodak Panatomic Film is a very fine grain panchromatic film intended for use in miniature cameras. It is slightly faster, by artificial light, than Kodak Verichrome Film; by making the same exposures recommended for Verichrome Film, satisfactory pictures will result.

In the following pages we will outline some of the many possibilities. These instructions will necessarily be more in the nature of suggestions than directions, owing to the great differences in each particular subject; a few general hints will doubtless be found helpful.

### INDOOR PICTURES

★ Making pictures indoors at night has been simplified so much, by the introduction of Eastman's new film—the Kodak Super Sensitive Panchromatic Film, that it is very easy for anyone to make pictures in all parts of the home, with any kind of a camera.

By using the Mazda Photoflood Lamps, or the Photoflash Lamps, you may obtain sufficient light for all kinds of subjects—with the added advantage of being able to place the lamps in any position, to obtain the lighting desired.

The Kodaflector makes indoor pictures still easier. It increases the efficiency of Photoflood and Photoflash Lamps at least four and a half times.

Snapshots of the youngsters in the playroom (unposed pictures), can now be made if you use a camera with an f.6.3 or faster lens. Quick exposures—not snapshots—are possible with the slower lens cameras, including those of the box type, by using Photoflood Lamps and Kodak Super Sensitive Panchromatic Film.

Make some indoor pictures tonight, everyone will have fun doing it.

#### WITH THE PHOTOFLOOD LAMP

★ NIGHT PHOTOGRAPHY indoors, such as home portraits, family groups, still-life studies, and intimate home life scenes in which action need scarcely be suspended more than is necessary when making snapshots outdoors, are easily and simply made with the new Mazda Photoflood Lamps and Kodak Super Sensitive Panchromatic Film.

This lamp, not to be confused with the Photoflash Lamp, is similar in appearance to the usual 60-watt Mazda lamp and is used

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#### THE PHOTOFLOOD

LAMP gives a steady burning light of great intensity. Its average life on the usual house current is two hours, sufficient for taking a great number of "snaps" so that the cost per picture is negligible. Price 35 cents.

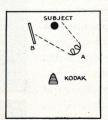
### AT NIGHT

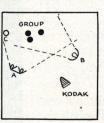
in the same sockets. When used without a reflector, it gives, however, a light approximately equivalent to that of a 750-watt general service lamp. This intensely brilliant light—the result of over-loading the filaments—is very effective for photographic purposes and, although the life of the lamp is shortened by this overloading, its rated life of approximately two hours at 115 volts is sufficient for such a number of exposures as to make the cost per picture negligible. The Photoflood Lamps cost 35 cents each.

A reflector should be used behind the lamp, to obtain full light value.

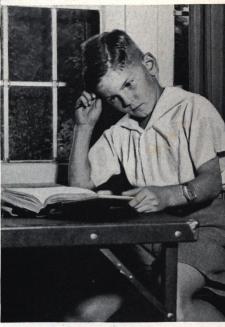
ABOVE: A, 2 Photofloods in home lamp, 3 feet from subject.
B, White tablecloth over screen.
Exposure 115 second with stop f.11 (U.S.8).
Kodak Verichrome Film.

A, 2 Photofloods in Kodaflector, 4 feet from subject.
B, 1 Photoflood in home lamp, 5 feet from subject.
C, 1 Photoflood in floor lamp. Exposure 1125 second with stop f.6.3. Kodak Super Sensitive Panchromatic Film.





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It increases the power of the light three or four times; without a reflector the exposure must be three or four times longer.

The Kodaflector is especially designed for use with the Mazda Photoflood Lamps. It also increases the illumination when using Photoflash Lamps. The Kodaflector can be used to increase the efficiency of ordinary Mazda lamps.

To obtain a variety of lightings with greater illumination, two Kodaflectors (two double units) should be obtained.

Where one Kodaflector (double unit) only is used, owing to the light source being from one direction which would light one side of the subject brightly and leave the other side in shadow, a reflector of some white material should be used to throw light back into the shadows.

The diagrams demonstrate suggested lightings. Many scenes can be made without using additional reflectors, as light walls when near the subject reflect sufficient light. Reflectors may be used as shown in the upper diagram on page 3. Reflectors are necessary where the walls are dark and can be of little help.

A medium colored or light background will give the best results, and it is advisable that it be not more than two feet from the subject.

**CAUTION:** Do not place the Kodaflector too close to the imaginary line between the Kodak and the subject or the lighting will be flat, but do not exceed an angle of about 45 degrees. For the best results use two Kodaflectors (two double units), with the







A, 1 Photoflood in home lamp, 6 feet from subject.
B, 2 Photofloods in home lamp, 6 feet from subject.
Exposure, 1110 second with stop f.6.3.
Kodak Super Sensitive Panchromatic Film.



A, 1 Photoflood in home lamp, 3 feet from subject. B, 2 Photofloods in home lamp, 3 feet from subject. Exposure, 1125 second with stop f.6.3. Kodak Super Sensitive Panchromatic Film.



A, 2 Photofloods in Kodaflector, 10 feet from subjects. B, 1 60-watt light in bridge lamp. Exposure, 1 second with stop f.11 (U.S.8). Kodak Super Sensitive Panchromatic Film.



stands raised to bring the lamps slightly higher than the subject's head, and pointed downward.

When arranging the Kodaflectors and Kodak, see that no reflections of the lights in windows, glass in picture frames or glass doors, are within range of the lens of camera. Draw the window shades to avoid reflections from that source.

Unusually effective results can be produced by backlighting. Use one Photoflood Lamp in a tall floor or bridge lamp, so that the lamp will be above and to the side of the subject. This lamp is in *addition* to those given in the exposure table on page 8, and should not be considered when determining the proper exposure.

With two Kodaflectors (two double units), which is the ideal arrangement for the home, many artistic lighting effects can be obtained, and it will be found easier to control the balance of illumination than with only one Kodaflector (double unit).

Sometimes it may be found desirable to use two single units, or a double and a single unit.

If it is necessary to have the source of illumination at a low level, near the floor, or in any place where the tripod stand can not be used, the reflector and lamp can

be held by an assistant in the position required. The angled rod attached to the socket makes it easy to hold the lamp at any level.

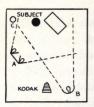
Better lighting effects are usually

We recommend the Kodaflector as the ideal lighting unit. It consists of a folding, adjustable stand with combination clamp and swivel top, two special reflectors with sockets and angled rods, and two connecting cords (attached to the sockets), as shown in the illustration.

The price of the Kodaflector, complete, but not including the Photoflood Lamps, is \$5.00.



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A, 2 Photofloods in Kodaflector, 4 feet from subject. B, 1 Photoflood in home lamp, 8 feet from subject. C, 1 Photoflood in floor lamp, 3 feet from subject. Exposure 1125 second with stop f.6.3. Kodak Super Sensitive Panchromatic Film.



### PHOTOFLOOD LAMPS AND KODAFLECTORS

obtained with more light on one side of the subject, as shown in the diagram above. When using three lamps they may be at equal distances (see two diagrams on page 5), but when using four lamps the two Kodaflectors (two double units) should be at unequal distances. For example, the table on page 8 gives the distance at six feet, the lamps may be placed at five and seven feet from the subject.

The distance from the Kodaflectors to the subject is the important factor in determining the correct exposure, not the distance from the Kodak to the subject. The camera may be moved to include as much of the subject as desired, but of course the Kodaflectors must not show in the finder.

The exposure will, of course, vary with the nature of the subject, the kind of film used, distance of light from subject, and size of lens opening. With more than two lamps the exposure will be relatively and considerably less.

It is advisable to use ordinary electric lights in the Kodaflector or

in home lamps when arranging your subjects and composing the picture. When everything is in readiness, replace the ordinary electric lights with the Photofloods.

Do not turn the lamps on the subject or subjects full in the face when they are unprepared. It is better to accustom subjects to the lights by first pointing the Kodaflector in some other direction.

When ready to make the exposure, turn on the Photoflood Lamp, open the shutter of the camera for the time required, close the shutter and then turn off the Photoflood Lamp at once. When photographing living subjects turn on the lamp a few minutes before making the exposure. This allows the subject's eyes to become adjusted to the bright light. As many good pictures can be made during the two hour life of the lamp as your speed of operation permits. Do not leave the Photoflood Lamp lighted any longer than is necessary.

As a general guide, it may be taken that with Kodak Super Sensitive

### HAVE SIMPLIFIED PICTURE TAKING AT NIGHT





A, 1 Photoflood in home lamp, 6 feet from subjects.
B, 1 Photoflood in table lamp, 5 feet from subjects.
C, 1 Photoflood on cord behind man.
Exposure 1 second with largest opening of Brownie Camera.
Kodak Super Sensitive Panchromatic Film.

Panchromatic Film an exposure of about one-half second will be sufficient at night, with any single-lens camera, including the boxtype cameras, using two lamps in reflectors at six feet from the subject, and using the largest stop opening of the camera. With Kodak Verichrome and Panatomic Film an exposure of about one and one-half seconds should be given under these same conditions. With a double-lens camera, 1/5-second at f.11 (U. S. 8) should be sufficient with Kodak Super Sensitive Panchromatic Film, and

### **EXPOSURE TABLE**

### FOR KODAK SUPER SENSITIVE PANCHROMATIC FILM AND KODAK VERICHROME FILM

This table gives the approximate exposures required for the different stop openings and distances, when using the Kodastector with two Photoslood Lamps.

Distance Lamps to Subject	Diaphragm or Stop Opening	Exposure in Seconds Kodak Super Sensitive Pan- chromatic Film	Exposure in Seconds Kodak Verichrome Film
4 feet . " "	f.4.5 f.6.3 f.11 f.16	1/50 1/25 1/10 1/5	1/25 1/10 1/5 1/2
6 feet " "	f.4.5 f.6.3 f.11 f.16	1/25 1/10 1/5 1/2	1/10 1/5 1/2 1-1/2
10 feet " "	f.4.5 f.6.3 f.11 f.16	1/10 1/5 1/2	1/5 1/2 1-1/2 3

Doubling the number of lamps will halve the exposure.

These exposures are for portraits. When making pictures of interiors without including people, double the exposures given in the table.

Kodak Panatomic Film is slightly faster, by artificial light, than Kodak Verichrome Film, however, satisfactory pictures can be obtained by making the same exposures recommended for Verichrome Film.



2 Photofloods in home lamp with shades removed, placed behind white sheet. Exposure 2 seconds with stop f.11 (U.S. 8). Kodak Super Sensitive Panchromatic Film.

1/2-second with Kodak Verichrome and Panatomic Film. Double these exposures if making indoor pictures without including people.

Interesting backlighting effects can be obtained by using an *additional* lamp in a shaded table or floor lamp placed behind the subject. Do not allow the direct rays of light to enter the lens of the camera.

**CAUTION:** These lamps will become quite hot, therefore the fabric of any lamp shade must not come in contact with the lamp bulbs.

When the lamps are used for general illumination to make a picture of a room, it is advisable to use an opening such as f.16 (U. S. 16) to get sufficient depth of focus. This will require an exposure from one to six seconds when using Kodak Super Sensitive Panchromatic Film, depending on the distance included, number of lamps, if reflectors are used with the lamps, and the color scheme of the room, whether light, dark, or medium. If Kodak Verichrome or Panatomic Film is used the exposure should be increased about three times.

The Photoflood Lamp can be used for making silhouettes in place of daylight or flashlight. More uniform results are obtained with it than with daylight. Following the general directions on pages 14 and 15, an exposure of four to six seconds will be required with the largest opening of a single lens camera, using Kodak Verichrome or Panatomic Film (one or two seconds, with Kodak Super Sensitive Panchromatic Film), and a single Photoflood Lamp in a reflector. With stop f.8 (U. S. 4) the exposure should be about three seconds with Kodak Verichrome or Panatomic Film, or two seconds if stop f.6.3 is used. The lamp should be placed at the same height from the floor as the lens.

### FLASHLIGHTS

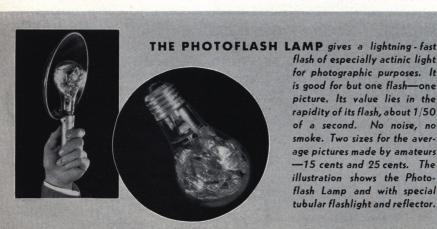
★ A FLASHLIGHT is the most concentrated form of artificial light and with it we can obtain the same effects that are produced by sunlight. It is especially useful in the home for indoor portraits, group pictures and interiors that do not get much sunlight, as it is easily controlled and can be used to produce any degree of contrast or softness.

The requirements for making flashlight pictures are few and simple. A firm support for your Kodak, a Photoflash Lamp, and if a flash is to be made at some distance from the subject, a reflector should be used to increase the illumination on the subject.

#### THE PHOTOFLASH LAMP

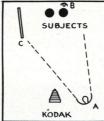
★ The Photoflash Lamp resembles an ordinary incandescent bulb such as is used for household lighting. This bulb, however, contains oxygen and a quantity of crumpled-up aluminum foil; it comes in three sizes, No. 10 (small), No. 20 (medium) and No. 75 (large). Use the No. 10 lamp in small or medium sized rooms with the subjects 6 or 8 feet from the lamp. The No. 20 lamp is for large rooms, with subjects 10 or 12 feet from the lamp. The No. 75 lamp is for interior and outdoor photographing of large areas.

The Photoflash Lamps are merely screwed into an ordinary lamp socket or into the end of a special tubular hand flashlight, or in the Kodaflector. When the current is turned on, the specially coated filament immediately ignites the aluminum foil and an instantaneous flash of great intensity and actinic quality results. Fast lens equipment





is not needed where the Photoflash Lamp is used. The flash is quick enough to catch a child at play, and a portrait exposure is made before the subject can close his eyes.



A, 1 Photoflash in home lamp (with reflector), 6 feet from subjects.

B, 1 Photoflash on extension cord in fireplace between girl and camera, with cord connected to the SAME socket as Photoflash A.

C, White tablecloth over screen 2 feet from subjects.

Exposure, use stop f.11 (U.S.8). Kodak Super Sensitive Panchromatic Film.



A, 2 Photofloods in home lamp, 4 feet from subject. B, 1 Photoflood in home lamp, 6 feet from subject. Exposure, 1/25 second, stop f.6.3. Kodak Super Sensitive Panchromatic Film.







This light is so easily portable that pictures can be made in any part of the home. Most photographic stores sell these lamps.

While the Photoflash Lamp may be used without a reflector it is made more effective where one is employed. By using the Kodaflector the best results are obtained. If the reflector is not purchased, hold a piece of white cardboard or tin back of the lamp.

For the best results, the Photoflash Lamp should be held a little higher than the subject's head, and when photographing a group the lamp should be near an imaginary line between the subjects and lens to avoid casting shadows on members of the group.

If your camera is loaded with Kodak Super Sensitive Panchromatic Film, and you are making the exposure with a Photoflash Lamp; before opening the shutter of your camera (which should be set for "time"), turn out all the room lights or leave only a very dim light in the room. Then open the shutter, set off the flash, and close the shutter immediately. This procedure is necessary because of the extreme speed of the film.

Outdoor night pictures of at least fairly nearby subjects, such as a group around a campfire, the evening garden party, the corn or sausage roast, the game of quoits, etc., may also be taken with this lamp. For groups outdoors, where a comparatively large area is to be illuminated, the largest lamp (No. 75), will prove very satisfactory.

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### **SNAPSHOTS**

### **SNAPSHOTS**

★ Many times you will want to make snapshots of the familiar every-day incidents around the home that occur only in the evening—after dark. Such pictures are now made easily by using Mazda Photoflood Lamps and loading your camera with Kodak Super Sensitive Panchromatic Film; the camera should have a lens with an opening of f.6.3 or larger. Even the box cameras which have smaller lens openings than f.6.3 can be used for making snapshots, by using their largest opening and one of the small, 15-cent Photoflash Lamps.

When the young folks have a party, or if they drop in for an evening of entertainment, it is a simple matter to replace some of the regular electric lights for the Photoflood Lamps; with these lamps you will obtain ample illumination for making snapshots.

Think of the priceless snapshots you can make of your little children, such as tuning in the radio for their favorite program, taking a bite to eat before retiring for the night, and also toddling upstairs to bed.

The examples on these two pages will give you some idea of how simple it is to make snapshots at night, and the diagrams show how you can make similar pictures.

These—and many other subjects too numerous to mention—are easily obtainable by using the *extra rapid film*, the Kodak Super Sensitive Panchromatic Film.

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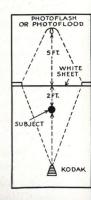
A and B, 1 Photoflood each in separated Kodaflector (single units), Afeet from subject. C, 1 Photoflood in table lamp on radio. Exposure 1125 second stop f.6.3. Kodak Super Sensitive Panchromatic Film. A-1 Photoflood in home lamp, 4 feet from subjects. B, 1 Photoflood in home lamp, 5 feet from subjects. C, 1 Photoflood in floor lamp. Exposure 1125 second with stop f.6.3. Kodak SS. Pan. Film.





AT NIGHT





### SILHOUETTES ADD NOVELTY TO PICTURE MAKING

### PHOTOGRAPHIC SILHOUETTES

★ Photographic silhouettes can be made indoors either by daylight, flashlight, or with Photoflood Lamps, but as the strength of daylight varies considerably, the surest way of obtaining correctly exposed silhouette negatives is by using a Photoflash Lamp, or with Photoflood Lamps (see page 9).

Two rooms with a doorway between them are needed. The opening is covered with a sheet stretched so that no wrinkles are seen. The subject is placed before the sheet facing at a right angle to the camera, in full profile. The Photoflash Lamp should be screwed into a Kodaflector or a floor lamp placed on the opposite side of the sheet in a line with the camera as shown in the diagram above. It would be convenient to have an extension cord from the Kodaflector or floor

lamp, which would be long enough to allow making the connection to a wall outlet in the same room where the Kodak is set up. The switch at the lamp should be turned on and the flash set off when the plug on the extension cord is connected with the outlet.

Just before making the exposure, turn off all lights in both rooms, then open the shutter, set off the flash, close the shutter and turn on the lights in the rooms again. See directions on page 9 for using the Photoflood Lamp.

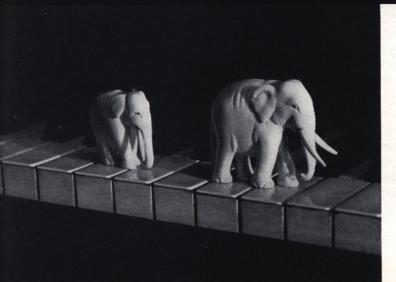
Silhouettes make very interesting and unique pictures. They can be used for making unusual personal greeting cards, as illustrated and described on page 19.

### TABLE TOP STUDIES

★ Table top photography gives the amateur an opportunity to wander from the beaten track of outdoor snapshots, and attempt experiments with the unusual, something which is purely the creation of one's own ingenuity and imagination.

The table top or other suitable support comes in as the base of operations, on which you build up any fancy your imagination leads you to, from the simplest arrangement of fruit and flowers to an elaborate "set"

### UNUSUAL EFFECTS ARE MOST FASCINATING



1 Photoflood in home lamp, 4 feet from subject, and placed on the right side. Exposure 2 seconds with stop f. 16. Kodak Verichrome Film.

simulating a windswept, moon-lit desert, or a battle scene in which the children's toy soldiers and cannon can be used to advantage, or a miniature train would make a fine railroad picture.

Our illustration shows the possibilities; the novel arrangement shown on page 15 needs no description, it is but one of the thousand and one similar pictures you can compose. For a still life picture of flowers or a basket of fruit, use a plain cloth for a background, and in order to get a large image use a Kodak Portrait Attachment.

Many interesting pictures can be made of the children's toys and trinkets that may be about the house. The lighting for the picture on the preceding page can be obtained with one Photoflood Lamp placed above and to one side of the "set-up." Make an exposure of two seconds with stop f.16 or U. S. 16.

Other arrangements can, of course, be anything you fancy, and the variety of pictures is limited only by your imagination.

A good point to keep in mind when making table top pictures is to have your "set-up" not too far from the edge of the table or other support. If too much of the table shows in the foreground, it will be out of proportion to the rest of the picture.

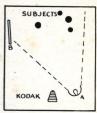
### THE CHRISTMAS TREE

★ THE Christmas tree is another favorite subject for the Kodak and one that is not difficult to photograph by a simple flashlight. It is best done as soon as the last touch has been given the decoration of the tree and when the little folks are sound asleep.

Set the Kodak in position to show all the tree in the finder, with stop f.II (U. S. 8) and the shutter opened at time, use a Photoflash Lamp with reflector, placed slightly behind and to one side of the camera, at a height of about six feet. Close the shutter immediately after the flash. If the illumination of the room is dim, it will not affect the film while the shutter is open, providing none of the lights show in the finder.

When a single lens camera of either the box or folding variety is used for photographing Christmas trees under similar conditions, use the largest stop opening.





A,1 Photoflash in home lamp with reflector, 10 feet from subject. B, White tablecloth over screen. Exposure, use stop f.11 (U.S.8). Kodak Super Sensitive Panchromatic Film.

Photoflood Lamps can also be used by following the Exposure Table on page 8. If people are not included, be sure to *double* the exposure.

### INTERIORS BY ORDINARY ELECTRIC LIGHTS

★ Crry homes are sometimes so close to other buildings that it is not always possible to get enough illumination to photograph some of the rooms by daylight. When electric light is available this difficulty is overcome. By using plugs that will hold two, three or four lamps and connecting with the nearest floor or ceiling outlet, any quantity of light can be placed where it is needed. The regular wall and ceiling lights will often supply enough illumination, or if more light is needed lamps

of higher wattage can be used. By using ordinary electric lights in a Kodaflector, the amount of illumination is increased considerably.

The illustration below shows a kitchen and dining alcove photographed by a single 60-watt lamp in an amber shade over the table, a 100-watt lamp in a porcelain shade over the sink, and a 40-watt lamp in the ceiling over the camera. The exposure was 15 seconds with stop f.11 (U. S. 8); larger rooms with dark wall paper and hangings would of course need more illumination and longer exposure. Each room will call for its own exposure, but it will soon be found comparatively easy to estimate a satisfactory exposure.

Lighted floor and table lamps can be photographed in their normal positions and will not fog the picture if the bulbs do not show through or under the shade. They photograph much more attractively when

lighted and can improve many an interior picture.

A distinction must be made between lamps that show in the picture area and those that do not show but are used for illumination. Brilliant pictures by artificial light can be made only when the light from the lamps that are not in the picture, is prevented from shining directly into the lens while the exposure is being made. A magazine or newspaper can be so held as to shade the lens from direct light.

### THE PERSONAL TOUCH

★ The personal greeting card is rapidly coming into favor and the Kodak enables you to make the truly personal and distinctive ones,





### PERSONAL GREETING CARDS

Mounted print on regular or hand printed card.





Photographic silhouette, hand lettering and decoration.

showing as they do, a group of the family, an individual or the home.

No special equipment is needed, as the simplest box camera will produce negatives suitable as a basis from which to work. Look over your good prints or make a special silhouette for the occasion, from the instructions given on pages 14 and 15. The lettering can be done by hand, or your prints can be mounted on a regular greeting card if a considerable number are required.

Our illustrations show just how simple, yet effective, these cards can be. The only limit to the elaboration of the decoration of the cards is your ability to design and execute the personal touches.

### OUTDOOR PICTURES



★ THERE is something about pictures made outdoors at night that arouses the imagination and fascinates one. They are often pictures of ordinary subjects made under unusual conditions, and they are therefore more interesting than the usual type of pictures made by daylight.

A novel idea for your collection would be to make two pictures of a building or a street scene, one by daylight and the other at night, both pictures being made from exactly the same position—the comparison would be most interesting.

Pictures made after dark of buildings with their myriads of brilliantly-lighted windows, campfire scenes and fireworks, remind one of scenes

### AT NIGHT



Exposure 5 minutes with stop f.11 (U.S.8). Kodak Super Sensitive Panchromatic Film, 15 minutes with Kodak Verichrome Film.

such as those described in fairy books.

A large industrial plant like a steel mill or a blast furnace will offer excellent opportunities to make unusual and fascinating pictures at night. The flying sparks from the chimneys and the bright light reflected on the smoke will prove most effective.

Pictures at night of outdoor subjects are really very easy to make. They can be made with any kind of camera. For the very best results, however, you should load your camera with the Kodak Super Sensitive Panchromatic Film, which is obtainable in both rolls and packs. By using this film very short exposures can be made; and it has a special backing which prevents halation or "fuzziness" around the bright lights in the picture.

Be sure to include many outdoor pictures at night in your photograph album; the beautiful results will be a constant source of pleasure to you and your friends.



### \* \* \* BUILDINGS AND CAMP FIRE SCENES

### FLOODLIGHT PICTURES

★ More and more of our public buildings are being illuminated after dark, and their beauty shown off to great advantage by powerful, indirect lights that bathe the building in a brilliant soft light. The Capitol at Washington, for instance, is beautifully displayed after dark and can be easily photographed with exposures of two to three minutes with Kodak Super Sensitive Panchromatic Film and stop f.16 (U. S. 16), or five to ten minutes with stop f.16 (U. S. 16), with Kodak Verichrome and Panatomic Film. These exposures are for white light. The requirements are a tripod or other firm support for the camera and not too much movement or obstruction near the lens. Street lights must be kept as far out of the immediate foreground as possible. When using Kodak Verichrome Film, Kodak Super Sensitive Panchromatic Film or Kodak Panatomic Film, halo from street lights is reduced to a minimum.

#### **CAMPFIRE SCENES**

★ The campfire is easily the center of attraction after sundown in any scout or family camp, and many good picture opportunities occur as the campers busy themselves with the corn or marshmallow roast. It is easy to secure good pictures by letting off a flash at the right time.

The method is quite simple. Set up your Kodak or Brownie on a tripod to include the view desired. To determine the area which will be included in your picture, an assistant should hold a lighted flashlight or match at the right and left boundary of the group, while the photographer is looking in the finder (be sure the shutter is closed). Use stop f.11, U. S. 8 or No. 1, or the largest stop opening on a box camera. To one side and slightly behind the camera, hold a Photoflash Lamp fitted in a special tubular hand flashlight and reflector (see page 10) about five feet from the ground. Having first opened the shutter of your camera, press the button of the flashlight, then close the shutter. Before setting off the flash, caution the campers not to move, and see that none are staring at the camera, as this is apt to spoil the picture.

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### MAKE VERY INTERESTING SUBJECTS \* \* \*



### **FIREWORKS**

★ Fireworks offer opportunities for some beautiful and novel pictures. The effect wanted, is of streams of light with the incidental sparks caught in the slower-moving showers. These lines fall beautifully, tracing graceful patterns that make splendid pictures.

Since the film is not affected by a dark sky, the shutter may remain open or be reopened to capture successive pieces. The lens must point towards an unobstructed part of the sky in order to get a solid background, and you must be prepared to close the shutter should any spectators get too close to the lens. Many a brilliant burst can be secured with an exposure of one second and as long as they are not set pieces attached to a framework, the camera can be tilted as much as necessary to get the film fairly well filled. Simply aim the lens at the space where the shells are bursting and you will not fail to get some very beautiful pictures. The camera must be on a firm support, especially when making pictures of set pieces that are on the ground, and where buildings are included as shown in the illustration on the opposite page.

### LIGHTNING

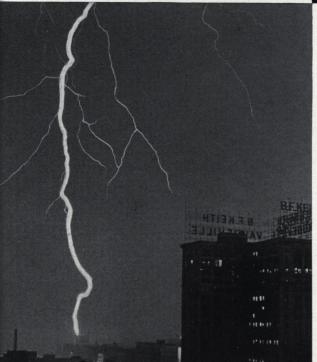
★ LIGHTNING is in somewhat the same class as fireworks and what we aim to get are brilliant ribbons of light against a black background, it is more erratic, however, and more patience is required. The most satisfactory method is to place the camera, focused at the 100-foot mark, on a tripod at an open window pointed in the direction of the last few flashes. The shutter, set at time and using the largest opening, is left open, and closed after a single flash, or left open for several flashes.

The only form of lightning that does not picture satisfactorily is sheet lightning, which uniformly illuminates a broad expanse of sky. What we like best are the spectacular pictures—the brilliant zig-zag lines of light which flash across a black sky made by chain lightning, and ball lightning—an unusual form—a fiery ball descending to the earth.

The camera can be held in the hands for photographing lightning, with the shutter set for "time." In this case, however, the film should be turned after each flash so as not to show more than one horizon line.



Exposure 45 seconds with stop f.8 (U. S. 4). Kodak Super Sensitive Panchromatic Film.



Open shutter at "time." Point camera at the sky. Close shutter after a flash or flashes.



#### MOONLIGHT

★ Moonlight will make pictures just as sunlight does, but as it is a great many times weaker than sunlight, exposures must be very considerably increased. Perhaps the simplest way to calculate a moonlight exposure is to give 25 minutes for each one-hundredth of a second that would be given for the same scene by sunlight. For example: The exposure in bright sunlight for a landscape with a dark-toned object in the immediate foreground, would be 1/25 with stop f.11 or U. S. 8. Then the exposure by the light of a full moon would be 100 minutes with the same stops. This could be cut down to 50 minutes with stop f.8 or U. S. 4. For a landscape without a dark-toned object in the immediate foreground about 25 minutes with f.8 or U. S. 4 would be ample; for distant landscapes the exposure can be from 10 to 15 minutes. If the ground is covered with snow, shorter exposures can be made, see illustration below.

If a full daylight effect is desired these exposures must be multiplied by 4 and this applies only to nights when the sky is clear and the moon is full, the half moon does not give even half as much light as a full moon.

With a single lens, and all fixed focus types of cameras, use the largest stop and double the exposures given above. These suggestions of course, apply only to pictures made by moonlight and not those showing the moon itself.

"Moonlight" scenes can be made by sunlight. This is best done during the sunset hour and when there are masses of clouds floating in the western sky which create lighting conditions favorable for picturing

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AT LEFT
"Moonlight" made at sunset. Exposure 1/100 second, f.11 (U. S. 8).

AT RIGHT Real Moonlight. Exposure 15 minutes, f.8 (U. S. 4).







"moonlight" scenes by sunlight. The sun must be wholly or partially obscured and if the light is red, yellow or orange an exposure of 1/100 second with stop f.11 (U. S. 8) can be given, and to secure a night effect from a negative exposed in such a manner, it must be printed long enough so that all but the high-lights will be dark.

### LIGHTED STREETS AND PUBLIC PLACES

★ The "White Way" or theatre district of a large city often offers bright scenes that would make an attractive souvenir and the town or village square with its corner churches and soldiers' monument, is well worth an exposure, especially on a wet night when the pavement shows interesting reflections.

When making night pictures, some lights may have to be included in the picture. In estimating the exposure necessary it is not so much the lights, however, as the general illumination that is important. The pictorial effect may sometimes be improved considerably, by including some of the lights.

The pictures will not show any trace of occasional passing vehicles or pedestrians during the long exposures necessary, providing they do not stop. If an automobile or trolley car approaches, the shutter should be closed or place your hand or hat momentarily in front of the lens, as any moving bright lights will show as streaks in the negative. Exposure will necessarily depend on the quantity and quality of the light and the size of the stop opening. With stop f.8 (U. S. 4) or f.11 (U. S. 8) an exposure of from one second to one minute for a well lighted sub-

ject will give very satisfactory results, with Kodak Super Sensitive Panchromatic Film. With Kodak Verichrome or Panatomic Film the exposure must be increased about three times.

Cameras with large aperture lenses such as the Kodak Pupille with its f.2 lens and the Kodak Vollenda with an f.3.5 lens permit making snapshots at night with Kodak Super Sensitive Panchromatic Film, providing that the illumination is sufficient. For instance the picture of the man in front of the shop window (made on Kodak Super Sensitive)



Panchromatic Film, exposure f.11 and 1 second) could have been made with the Kodak Pupille at f.2 and 1/25 second; and with the Kodak Vollenda at f.3.5 and 1/10 second.

The picture below of the fountain in front of the Electrical Building at the Century of Progress in Chicago, was made on Kodak Super Sensitive Panchromatic Film, exposure 3 minutes with stop f.16 (U. S. 16).

When traveling through various cities during a long auto tour, or when visiting friends in distant places, be sure to make pictures of the points of interest after dark—they will add very much to the interest of your collection.



### FIRES AT NIGHT

★ FASCINATING as day photographs are for their volumes of swirling smoke, the night picture of a big fire has a picturesqueness of its own. They don't occur very often in any one place, but when they do it's an opportunity that should not be missed.

A big fire, whether it rages in the light of day or during the hours of darkness, presents an ever changing scene and you never can tell when or where the next spectacular disclosure will be. It is therefore best as soon as you arrive, to be ever ready, at a safe distance from the fire, to make the pictures of the impressive spectacles as they successively unfold.

At night both sky and landscape are dark and we cannot photograph dark smoke against a dark



background. We can, however, make silhouette effects of the fire itself. This can usually be done when the flames are brightly outlined against the darkness by giving an exposure of 2 or 3 seconds with a large stop opening, f.8 (U. S. 4). When making exposures with a box camera, always use the largest stop. It is necessary to place the camera on a tripod or some other firm support; do not hold the camera in your hands.

Red and orange are the predominating colors of fire, therefore, the best results will be obtained if your camera is loaded with Kodak Super Sensitive Panchromatic Film, as this film is sensitive to all colors and it is very rapid.

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# Detailed Information GIVEN BY SERVICE DEPARTMENT

Eastman

While we have indicated in this booklet how certain pictures of more than common interest

can be made, you may wish further and more detailed information on some certain phase of photography.

The experts (practical picture makers) of the Service Department of the Eastman Kodak Company, at Rochester, N.Y., are ready at all times to give your enquiries prompt attention and to offer constructive criticism of work when desired. There is no charge—no obligation.

Service Department

EASTMAN KODAK COMPANY, Rochester, N. Y.

#### KODAK VERICHROME FILM

### Double-Guards Your Picture-Taking Success

Verichrome has an amazing picture-taking range for night photography or daytime snapshots. It is the *double-coated film* with two sensitive coatings instead of one. In sun or shade, on bright days or dull or for making pictures at night, it double-guards your picture-taking success.

IN THE YELLOW
BOX WITH THE
CHECKERED
STRIPES

### KODAK SUPER SENSITIVE PANCHROMATIC FILM

Assures the best results for picture-taking at night. While not noticeably faster than Verichrome in the bright sun of midday, it is 50% faster by morning and afternoon light. By artificial light it is three times faster than Verichrome. It is also double-coated and has a special back-

best results with each roll and pack.

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ing to prevent halation. Full instructions for

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