

50c

# Important—DONOT ATTEMPT TO OPERATE CAMERA BEFORE READING

#### 1. LOADING

One of the first and most important steps to learn in the operation of your camera, is the correct loading procedure. Turn to pages four and five for description and illustrations.

#### 2. CLOSING AND LOCKING CAMERA

After loading film, the back is then placed in the proper position and locked. Before locking, be very sure that the top edge of the back is placed firmly into the groove provided for it.

The back is locked by the use of two latch arms on the bottom of the case. The proper position of these arms when open, is against the bead, pointing toward each other. After closing, the arms will be in a position against the bead, pointing away from each other.

#### 3. TRANSPORTING

Be sure that the transport-rewind control lever is in the transport position. When transporting, the transport knob must be turned in the direction in which the arrow points, until a definite stop is reached. If this is not carried out, it will cause the loss of one frame. A good way to check this is to see that the counter knob registers to the next number, after the winding is completed.

If for any reason the release button has been pushed, and the shutter released before complete winding, it will be necessary to turn the transport knob until a definite stop is reached, press release button and then transport to the next frame, at which time the camera will be ready to take the next picture.

4.

The rewind knob should rotate as the film is being transported. If, after three or four frames have been transported and the rewind knob still fails to rotate, it is an indication that the film has been detached from the spool, due to improper threading. If this happens it will be necessary to open camera and check your loading procedure.

#### 5. SETTING OF SHUTTER SPEEDS

Be sure to set the shutter speed knob after transporting to a definite stop. If the stop has not been reached, it is possible to expose part of the frame, whereby the negative will show a strip at one end, that will appear as if over exposed.

#### 6. POINTS TO CHECK

- 1. Be sure you transport enough frames so that you have fresh film in the proper position.
- 2. The counter knob should be lifted, and rotated to "0" after transporting to a definite stop.

#### 7. REWIND

After the full roll has been taken, it will be necessary for you to rewind the film back into the cartridge. First you must be sure that the transport-rewind lever is in the "R" or rewind position. See Fig. on page 16. Complete rewinding will be indicated by the lack of resistance felt in turning the knob.

#### 8. CARRYING CASE

When using the camera in a carrying case, it is very important to watch that the flap does not obscure part or all of the lens.

#### 9. EXPOSURE METER

Although the exposure meter is of a highly accurate type, you will find that due to the difference of the eyes of different individuals, it is advisable to make three trial pictures, one using the meter reading you find to be right, and two others, one a step up and the other a step down. After the three negatives are developed, compare them and determine at which meter reading your best results were obtained. From this information you will be able to determine whether you should use the last readable letter or the one above, or the one below.

If all of the above suggestions are carefully adhered to during the operation of the camera, you should obtain good results. If for any reason you do not get the proper results, refer back over this list and see just where your trouble may be. Read your instruction book, and become thoroughly tamiliar with your PERFEX camera before trying to operate it.

# OPERATING INSTRUCTIONS

for the New 35mm



CANDID CAMERA

with

HINTS ON HOW TO TAKE PERFECT PICTURES

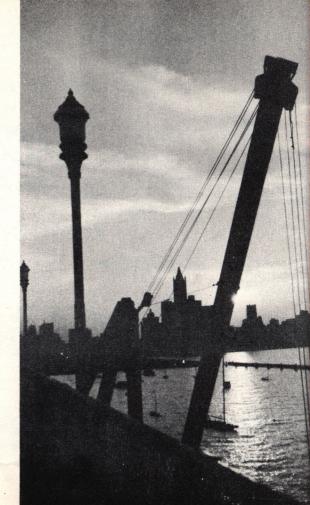
CANDID CAMERA CORPORATION of AMERICA
844 WEST ADAMS STREEET • CHICAGO, ILLINOIS

# **GUARANTEE**

The Perfex Forty-four Camera is guaranteed to be of perfect work-manship and free of both material and mechanical defects. It is guaranteed to give satisfactory service under all normal operating conditions.

In the event of breaking down or failure to any part or parts, return the camera to the factory prepaid and at our option we will repair or replace such defective parts. This guarantee is voided if, in our judgement, the camera has been abused or misused. Do not attempt to repair the camera yourself as special equipment not ordinarily available is required.

Into the sun at evening. A silhouette of Chicago's Skyline.
Shots like this are easy with the Perfex Forty-four.



# FOREWORD

THE PERFEX FORTY-FOUR CAMERA has been designed by experts to bring you in an American made instrument a camera that offers every essential feature for perfect picture making. Its design is the result of exhaustive research and careful study to produce an instrument that incorporates every desirable and worthwhile feature for ease in operation—convenience in use—adaptability to trying conditions and most important of all, for taking perfect pictures.

The Perfex forty-four is American made throughout—a credit to the ingenuity of a competent engineering staff who have spent endless hours in overcoming the mechanical and structural difficulties involved in the production of a quality miniature camera. It incorporates every worthwhile feature of the highest priced cameras.

A careful study of the various features found in the Perfex forty-four will give you a greater appreciation of the difficulties they have overcome in producing a top quality camera of this caliber at so economical a price.

To secure the best results from your Perfex Forty-four Camera, it is important that you understand all of its parts and adjustments thoroughly and we recommend that before you attempt to take pictures you spend an hour or two carefully going over these instructions with the camera before you so that you may familiarize yourself perfectly with all of the various adjustments and advantageous features.

Your Perfex Camera is a precision instrument—with good care it will reward you with a lifetime of service.

• PERFEX PICTURES ARE PRIZE WINNING PICTURES

# OPERATING INSTRUCTIONS

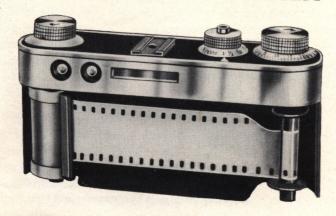
### LOADING THE CAMERA

The Perfex camera is designed to load with the standard 18 or 36 exposure cartridges of 35 mm film obtainable anywhere. It may be used for making pictures in black and white or color.

The 35 mm size of film has been determined upon because of the wide variety of emulsions available. These include the regular orthochromatic, panchromatic, process, infra-red and such natural color films as Kodachrome, Dufay, etc. To load the camera with film it is necessary first to remove the back of the camera exposing the film chambers and film driving sprockets. The Perfex has been designed to provide utmost accessability for the loading and unloading of film. On the bottom of the Camera will be found two arms which should be turned inward until they snub the metal bead on the edge of the camera. This will permit you to draw the back and bottom of the camera downward and to disengage it entirely from the camera proper.

The film cartridge to be loaded into the camera should now be placed in the film chamber at the left hand side of the camera as you face it from the back. The end of the film protruding from the cartridge should be drawn out until both the upper and lower perforations in the film can be engaged in the sprocket gears. The film take up spool which will be found in the film chamber at the right hand side of the camera as you face it from the back should now be removed from its chamber and the end of the film threaded into it in such a manner that it wraps around the back of the spool. See illustration on following page.

# LOADING THE CAMERA WITH FILM



The above illustration shows the correct manner of loading the camera. Notice that on the take-up spool, at right end of illustration, the film threads under the spool. When loading the camera it is advisable to work in the shade or subdued light to prevent possible fogging of the film.

With the end of the film properly threaded into the take up spool it should be reinserted into the take up chamber, making sure that the film perforations engage both the upper and lower sprocket gears. The back of the camera should now be replaced holding it in such a manner that the film pressure plate is laid over the film at the back of the camera—and making sure that the sprockets are still engaged. The back should then be slid into proper position and the two locking arms at the bottom of the camera returned to their original position. Do not force, if properly placed no force is necessary.

### LOADING THE CAMERA—Cont.

The film that has been drawn out of the cartridge in the loading operation has been exposed to light and to bring fresh film into proper position it will be necessary to wind the film advance knob until it reaches its automatic stop. The shutter release button should then be depressed and the transport knob advanced until the automatic stop is reached. Depress release button and transport film once again. The unexposed film is now in position for the first picture. (Note: Be sure to set counter to zero at this time.)

#### THE FILM ADVANCE KNOB

Located at upper left of camera as you face it from front. It winds the film, operates the exposure counter and sets the shutter automatically.

The film advance knob located at the top right of the camera from the back (see center spread) is designed so that as you wind the film for each successive exposure you automatically rewind the shutter and operate the exposure counter. Having the shutter winding mechanism coupled in this manner to the film advance mechanism eliminates the possibility of double exposures.

The film winding knob is designed to stop automatically when the correct amount of film for the next exposure has been brought into position. Do not force this knob. Turn it in the direction of the arrow until a positive stop is reached. If while winding the film you accidentally trip the shutter, before reaching the automatic stop—it will be necessary to continue winding until the stop is reached. Then release the shutter and rewind again until the automatic stop is reached.



#### THE EXPOSURE COUNTER

The Exposure Counter tells you instantly the number of exposures you have made—the number left. Its operation is mechanically coupled to the film winding mechanism for unfailing accuracy.

The beveled flange at the bottom of the film advance knob is marked off with 36 graduations representing the 36 exposures which may be made with one loading of the camera. After the film has been loaded, the shutter wound and released as described above it will be necessary to adjust the exposure counter disc to the figure "zero." This is done by drawing up the film advance knob and rotating it either right or left until the "zero" graduation appears opposite the indicator. The exposure counter is extremely accurate and as it is mechanically coupled to both the film advance knob and shutter mechanism, it cannot come out of adjustment. It will tell you instantly the number of exposures you have taken and the number you have left.

## THE PERFEX COUPLED RANGE FINDER

An engineering accomplishment that takes the guesswork out of good photography. Focusing the lens is an automatic operation—mechanically coupled to the built-in range finder. It assures critically sharp, perfectly focused negatives.

The Range Finder which is built in as an integral part of the Perfex forty-four is extremely accurate. It is of the split image type, operating on the principle of triangulation. Utmost accuracy is secured because of the long (3½ inch) base upon which the finder operates. The finder is mechanically coupled to the camera lens and images are brought into coincidence in the finder by rotating the lens in or out, depending upon the distance of the subject from the camera. This provides for automatic focusing.



RANGE FINDER

WINDOW-OPER-

#### RANGE FINDER WINDOW

LENS FOCUSING RING-ROTATING THIS RING OPER-ATES RANGE FINDER - AUTOMATICALLY FOCUSES THE LENS

Movement of the lens for focusing is synchronized with the action of the Range Finder and when an object is brought into incidence in the range finder, the lens is automatically focused for that distance. Proper focusing of the lens is a primary requisite to sharp, clean cut negatives and this system of synchronizing the action of the range finder with the focusing of the lens enables you to be sure of accurate focusing on every exposure.

Operation of the range finder is accomplished by placing your eye to the small circular window at the extreme left, from back of camera and with your left hand thumb and fore finger placed upon the metal flange which supports the lens on the front of the camera you revolve the lens to operate the range finder. As you look into the range finder you will see your subject (see illustration) as though it were cut in half horizontally, the upper half being misplaced in relation to the lower half. By revolving the lens support you will be able to bring these two sections into proper incidence to form a perfect picture. At this point the subject which you have brought into incidence is in perfect focus with the lens.

## THE PERFEX "SPLIT IMAGE" RANGE FINDER

The illustration below shows you an image as you see it in the Perfex Range Finder. When the upper and lower halves of your subject are misplaced in relation to one another the image is out-of-focus. Rotation of the lens focusing ring will bring the image together—at which point you have the range—and the lens is automatically focused for that distance.



OUT-OF-FOCUS IMAGE



IMAGE IN PROPER FOCUS

To simplify operation of the range finder, the primary or upper half of the image you see is colored, while the lower half is natural. This enables you to distinguish instantly between the upper and lower parts of the image and to bring them in perfect incidence in a minimum of time. Rotating the lens is easily accomplished by placing your thumb and forefinger on the milled edge of the focusing ring.

When desired focusing of the lens may be accomplished independently of the range finder. The lens focusing ring is graduated in feet permitting focusing in the conventional manner when speed or subject make this necessary.



# THE PERFEX THROUGH-THE-CAMERA TELESCOPIC TYPE VIEW FINDER . . .

The Perfex View Finder is of the telescopic type showing a brilliant "easy to see" image. It is accurately designed to cover the same angle of view as the standard two inch lens. It is placed close to the optical axis of the lens to secure accurate area coverage.

The Perfex Forty-four Camera is fitted with a telescopic type optical View Finder, which is located next to the range finder window—near the optical axis of the lens—minimizing parallax. By holding the view finder window close to the eye, the scene in the finder will have the same angle of view as that produced by the lens on the film. The optical properties of this finder are such that while the image is shown in its reduced size it is especially brilliant and easy to see. What you see in the finder, you will get in the resulting negative. You should train yourself to judge picture value by the image you see in the finder. A little care in securing the proper camera angle for your pictures—moving one way or another to eliminate an unwanted telegraph pole or other distracting object, will repay you with finer, more pleasing pictures. Prize winning pictures are easy with a Perfex.

#### Interesting Pictures

Everywhere you turn with your Perfex Camera you will find interesting subjects for pictures. The low cost per negative enables you to snap more pictures at a minimum of expense. Train yourself to see pictures—to recognize interesting picture material as you go along. And carry your Perfex with you always. Be ready for the unexpected picture when it presents itself.



NOTE — Before reading further, determine whether the exposure meter on your camera is of the type described on Pages 11 and 12 or whether it is of the type described on Pages 11A and 12A.

#### THE PERFEX EXPOSURE METER



The Perfex Camera has a built-in Exposure Meter that enables you to instantly determine the correct exposure time for any subject, either indoors or out. It covers film speeds from 1 to 1000, exposure speeds from 1/1250 to 30 seconds and lens stops from F:1 to F:32. It eliminates guesswork—gives you in its place a scientifically accurate means for determining exposure times.

#### PERFECT EXPOSURES ASSURE PERFECT PICTURES

The Perfex forty-four Camera is fitted with a highly accurate extinction type exposure meter. Located at the top center of the camera you will find a narrow aperature which when held up to the light will show a series of letters. This is the step wedge or density gauge which enables you to determine the value of the light falling upon the subject you wish to photograph. This wedge carries 16 separate and distinctive graduations of density. Each successive letter in the strip is denser than the one preceding it. When taking a reading it is advisable to point the camera at the subject, holding it approximately twelve inches from the eye and shading the back of the camera with the hand to exclude unwanted light as much as possible.

You will notice that the letters which appear easily readable, gradually taper off. The last readable letter being the key letter for determining the proper exposure time. The etched revolving disk on the back of the camera should be revolved until the key letter, found at the top of the revolving disk, lines up with the speed of the film being used. Then, referring to the bottom scale on the stationary disk, find the desired shutter speed, lined up with the correct lens stop to be used. For example, lets say we find a meter reading of "C," and the film in the camera is of the super-sensitive type, having a speed rating of 24. We rotate the movable disk



FILM SPEED CALIBRATIONS

LETTERS REPRESENT LIGHT VALUE READINGS INDICATED BY STEP WEDGE

CALIBRATIONS INDICATE LENS STOPS

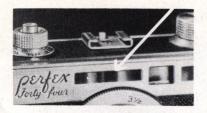
SHUTTER SPEEDS

until the meter reading of "C" lines up with the film speed rating of 24. We also find, that the nature of our subject and the depth of focus desired prompts us to use a shutter speed of 1/25 second. Referring to the scale on the bottom of the stationary disk, we find in alignment with 1/25 second a necessary diaphragm opening of F.8. Thus we find that for our particular film and meter reading, and with a shutter speed of 1/25 second, the correct exposure will be had by adjusting the iris diaphragm on the lens to F.8.

The Perfex exposure meter gives you direct readings. There is no guess-work, no calculating. It gives you on one adjustment the full range of exposure speeds for all lens stops. It is always advisable to use the slowest shutter speed possible to permit the use of a small lens stop, to secure the greatest possible depth of focus or range of sharpness in the picture. The smaller the stop used the greater the depth of focus secured. (See table on inside of back cover.)

The Perfex exposure meter is graduated to cover a range of film speeds from 1 to 1000. The highest speed film commercially available on the market today has a speed rating of 125. However, such rapid strides are being made by film manufacturers in higher speed emulsions that the Perfex meter has been designed to anticipate films of much greater speeds than are now available. The meter has been designed to cover lens stops from F:1 to F:32 and it covers the full range of exposure speeds from 30 seconds to 1/1250 seconds.

## THE PERFEX EXPOSURE METER



The Perfex Camera has a built-in Exposure Meter that enables you to instantly determine the correct exposure time for any subject, either indoors or out. It covers film speeds from 3/4 to 1000, exposure speeds from 1/1250 to 60 seconds and lens stops from F:1.5 to F:64. It eliminates guesswork—gives you in its place a scientifically accurate means for determining exposure times.

#### PERFECT EXPOSURES ASSURE PERFECT PICTURES

The Perfex forty-four Camera is fitted with a highly accurate extinction type exposure meter. Located at the top center of the camera you will find a narrow aperture which when held up to the light will show a series of letters. This is the step wedge or density gauge which enables you to determine the value of the light falling upon the subject you wish to photograph. This wedge carries 16 separate and distinctive graduations of density. Each successive letter in the strip is denser than the one preceding it. When taking a reading it is advisable to point the camera at the subject, holding it approximately twelve inches from the eye and shading the back of the camera with the hand to exclude unwanted light as much as possible.

You will notice that the letters which appear easily readable gradually taper off. The last readable letter being the key number for determining the proper exposure time. The etched revolving disk on the back of the camera should be revolved until the shutter speed you desire to use is lined up with the speed of the film being used. On referring to the top portion of the disk, you will find opposite your key letter or density strip reading, the correct lens stop to be used at that shutter speed. As an example: let us assume that we have a meter reading of the letter "C" and the film in the camera is of the super-sensitive type, having a speed rating of 24. The nature



TOP CALIBRATIONS INDICATE LENS STOPS

LETTERS REPRESENT LIGHT VALUE READINGS INDICATED BY STEP WEDGE

ROTATE THIS DISC TO SECURE ALIGNMENT FILM SPEED CALIBRATIONS SHUTTER SPEEDS

ADJUST SHUTTER SPEED INTO ALIGNMENT WITH SPEED OF FILM BEING USED

of our subject and the depth of focus desired prompts us to use a shutter speed of 1/25th second. The movable disk on the back of the camera is rotated until the film speed of 24 is brought into alignment with our shutter speed of 1/25th. Then on referring to the graduations on the bottom of the disk, we find opposite the letter "C" a lens diaphragm opening of F:8. Thus, we find that for our particular film and a shutter speed of 1/25th second, the correct exposure will be had by adjusting the iris diaphragm on the lens to F:8.

The Perfex exposure meter gives you direct readings. There is no guesswork, no calculating. It gives you on one adjustment the full range of exposure speeds for all lens stops. It is always advisable to use the slowest shutter speed possible to permit the use of a small lens stop, to secure the greatest possible depth of focus or range of sharpness in the picture. The smaller the stop used the greater the depth of focus secured. (See table on inside of back cover.)

The Perfex exposure meter is graduated to cover a range of film speeds from ¾ to 1000. The highest speed film commercially available on the market today has a speed rating of 125. However, such rapid strides are being made by film manufacturers in higher speed emulsions that the Perfex meter has

been designed to anticipate films of much greater speeds than are now available. The meter has been designed to cover lens stops from F:1.5 to F:64 and it covers the full range of exposure speeds from 60 seconds to 1/1250 seconds.

The following suggestions should be carefully studied in relation to operation of the exposure meter. When taking a reading through the density strip, we must remember that all of the light reflected by the scene which surrounds our subject is that which gives us our reading. If we desire to take a landscape scene and point the meter to the horizon line, the influence of the sky's brightness will over-balance that of the foreground and middle distance. As we are not primarily interested in taking a picture of the sky, we must eliminate this top light influence and point the camera slightly downward when taking our reading. As you do this, you will notice a distinct difference in the reading you get because of the difference in light value between the foreground which is to form our picture, as compared to the sky. In cases where we desire to photograph a person or a small object where the surrounding light value is in contrast to our subject—such as a person in a dark suit standing against a bright building. To take a reading of such a subject from a normal camera distance, the influence of the light building wall will give us a much higher key reading, resulting in under exposure of our dark colored subject. This can be overcome by taking our reading from a distance of three or four feet from the subject. This will eliminate the influence of the light wall and provide us with a negative properly exposed for our subject, eyen though over exposured for the white wall of the building.

Always bear in mind these differences in light values and make sure the meter reading you take covers only that of the subject you desire to photograph. Following is tabulated a list of 35 mm films with their speed ratings as they apply to the operation of the Perfex exposure meter.

	LIGHT VALUE
	Day- Tung-
AGFA	light sten
Fine Grain Plenachrome	
Finopan	
Fine Grain Rev. Superpan	
Ultra Speed Pan	
Supreme Superpan	64 40
DUFAYCOLOR	
Daylight—no filter	8 3
DUPONT	
XL Pan	
Superior Pan	
F. G. Parpan	
Micropan	6 4
EASTMAN	
Panatomic Plus X	40 24
Panatomic X	
Super XX Pan	
Kodachrome Daylight Type	
Kodachrome Type A	
Super X Pan	
S. S. Pan	
Panatomic	
Micro File	2
GEVAERT	
Express Superchrome	6 3
Panchromosa	

#### THE PERFEX FOCAL PLANE SHUTTER



The Perfex Focal Plane shutter covers a full range of exposure speeds from a s-1-o-w of 1 second to a top of 1/1250th second. Winding the film after each exposure automatically winds the shutter . . . returning it to the same speed adjustment as was used on the previous exposure. Any other desired speed may be instantly secured by readjusting the shutter set knob.

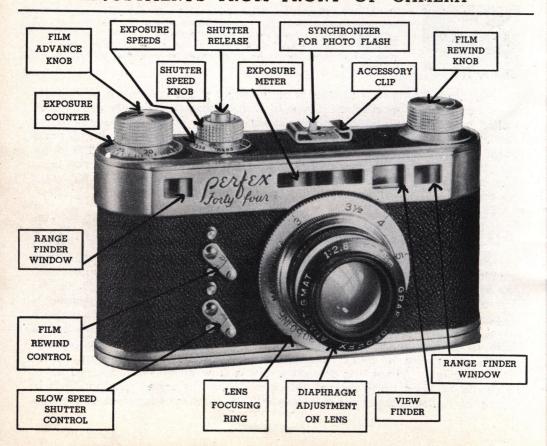
The Perfex forty-four Shutter is of the focal plane type generally recognized as being the most efficient type of shutter produced. Exposures are controlled by an opaque curtain having a slit aperture which passes before the film at various controlled slit openings. It assures uniform exposure to all parts of the film and it tends to eliminate blur caused by moving objects due to the fact that only a small area of the film is being exposed at any one time. The shutter is of advanced design providing a complete range of exposure speeds of 1-1/2-1/5-1/10-1/25-1/50-1/100-1/200-1/500-1/1050 seconds.

## ADJUSTING THE SHUTTER SPEED

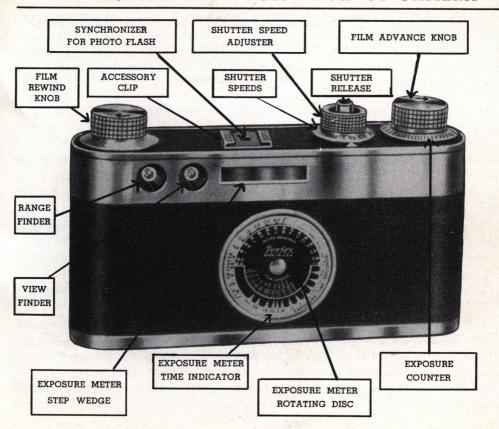
NOTE—It is advisable to set Shutter Speeds after cocking shutter

Adjustments of the shutter speed is accomplished by lifting and then rotating the shutter speed adjustment knob on the top of the camera until the speed desired is opposite the pointer. This is done by lifting up on the knurled knob and rotating it either right or left until the speed desired is opposite the indicator at which time the knob should be returned to its original level. It will be noticed that the speed graduations on the flange are in both black and red colors. When it is desired to use the higher speeds which are shown in black, the desired speed should be lined up to the black indicator. When it is desired to use a slow speed having a red color, it should be lined up to the red indicator. When the speed graduation is in black, no further adjustment is necessary. The slow speeds which are gradu-

# SHOWING POSITION OF OPERATING CONTROLS AND ADJUSTMENTS FROM FRONT OF CAMERA



# SHOWING LOCATION OF OPERATING CONTROLS AND ADJUSTMENTS FROM BACK OF CAMERA



### ADJUSTMENT OF SHUTTER SPEED—Cont.



The wide range of exposure speeds of the Perfex Focal Plane Shutter enables the operator to select a speed that fits the subject at hand. At the higher shutter speeds the fastest action can be frozen on the film permitting you to take full advantage of Perfex high speed lenses. At the slower shutter speeds (under 1/25th second) the use of a tripod is recommended.

ated in red become operative only when the bottom lever, located on the front of the camera is in the raised position marked (S) for slow. When speeds marked off in black are used, the lever on the front of the camera should be down at the position marked (F) for fast. The graduation marked (B) on the shutter speed knob is for bulb exposures. When using bulb exposure the lower level should be in position for the fast speeds. When the subject to be photographed requires an exposure longer than one second the bulb or time exposure should be used. With the shutter speed knob set at (B), depressing the shutter release opens the shutter—it closes when you release the button. Thus any desired duration of exposure may be secured by pressing the shutter release button and keeping it depressed for the desired time.

#### FOCUSING THE PERFEX LENS

Focusing of the lens is synchronized with the action of the range finder. Thus, by operating the range finder you bring the lens into proper focus for any subject which is brought into coincidence in the range finder. When it is desired in high speed photography to snap at random without recourse to the range finder the lens may be focused independently by the graduations appearing on the flange which supports the lens.

#### THE SHUTTER RELEASE BUTTON



If your negatives are to be critically sharp, care must be exercised not to move the camera during the exposure. The shutter release plunger on the Perfex is located on the top of the camera where the finger normally rests when making an exposure. Its action is vibrationless permitting longer exposures without fear of camera movement.

The Shutter Release button is of the micrometric type—requiring minimum pressure to operate—eliminating jarring of camera during the exposure. It permits you to make exposures without fear of camera movement. A special adapter is provided which slides over the exposure plunger and threads into the shutter set knob which permits the use of a cable release when desired.

### PERFEX F:3.5 and F:2.8 ANASTIGMAT LENSES



Perfex Lenses produce negatives of extreme sharpness and detail—ideal for enlarging. Large apertures provide ample speed for well exposed negatives even under poor light conditions. They permit the operator to take full advantage of the higher shutter speeds when photographing moving objects. Focusing is coupled with the operation of the range finder and is fully automatic.

Perfex forty-four Cameras are available with highly corrected, sharp anastigmat lenses of F:3.5 and F:2.8 aperture. The critical design of these lenses assure negatives of extreme detail and their high resolving power permits enlargements of many diameters without apparent loss in sharpness or detail. Do not attempt to clean lens before reading paragraph on lens cleaning.

## ADJUSTING THE LENS DIAPHRAGM

An understanding of the use and purpose of the lens diaphragm will aid you in securing finer picture results. The larger the opening in the lens, the greater the amount of light that passes through in a given time. With the iris wide open the lens will pass its maximum amount of light permitting a high shutter speed. Each successively smaller stop or diaphragm opening cuts the amount of light passed by one-half—requiring double the exposure time. The area of sharpness or the depth of focus in a picture is also controlled by the iris diaphragm. With the lens wide open the depth of field is shallow, requiring accurate focusing upon a plane surface. Each successively smaller stop increases the depth of focus, brings objects into sharp focus over a much wider area.

# CONTROLLING THE "Range of Definition"

On the inside back cover of this little booklet will be found a table showing the depth of focus secured at any lens stop when focused on any distance from five feet to infinity. It is advisable to work with the smallest lens stop that light conditions permit to secure the greatest possible depth of focus. When photographing moving objects a high shutter speed is necessary to arrest the motion and prevent a blurred image. At the higher shutter speeds, it follows that a larger lens opening must be used so that sufficient light passes through in the fraction of time allowed to give you a perfectly exposed negative. The fact that your camera is fitted with a high speed F:3.5 or an F:2.8 lens provides you with a speed reserve to meet the unusual conditions found in sports and action photography of all types.

## SUMMARY OF OPERATIONS

It might be well to summarize here the various operations necessary in making an exposure. (1) Loading the camera with film. (2) Winding the film, releasing the shutter and rewinding to bring film into proper position for a picture. (3) Operation of exposure meter to determine correct exposure time and adjustment of the iris diaphragm on the lens to conform to the meter reading. (4) Set shutter speed to conform to meter reading. (5) Sighting subject through range finder and securing coincidence by revolving lens mount. (6) Sighting and properly centering subject through view finder. (7) Pressing shutter release button.

# REWINDING THE FILM AFTER EXPOSURE

After all exposures have been made the film is rewound into its original chamber before being removed from the camera. To rewind the film the top lever on the front of the camera should be moved to the (R) position. The knob at the top left, from back of the camera, should be revolved in the direction of the arrow until all of the film has been returned into the cartridge at which time the camera may be opened and the cartridge removed for finishing. Rewind until you feel by the freedom of the knob that all film has been rewound into the cartridge. For the convenience of those amateurs who work with bulk film and desire to eliminate the need of rewinding, a special light-tight film take-up cartridge is available at a slight additional cost.

The use of this special chamber eliminates the need of rewinding the film. These special take-up cartridges can be secured from the dealer from whom your camera was purchased.

## THE PERFEX FLASH SYNCHRONIZER



Action pictures at night—unheard of a few years ago—are possible with the Perfex forty-four. Using standard photoflash bulbs as the light source, ample light is provided to permit the use of high shutter speeds. The Perfex built-in synchronizer times the action of the shutter with the firing of the bulb providing positive synchronization. This perfect timing assured negatives of full exposure every time.

#### BUILT-IN FLASH SYNCHRONIZER

In the center of the accessory clip on the top of the camera an opening will be found for the contact of a flash gun for firing flash bulbs. The flashing unit consisting of battery case, reflector and bulb socket to fit the accessory clip on the Perfex forty-four Camera. It is available as an accessory from your dealer. The timing arrangement for synchronizing the flash of the bulb with the shutter is built in as an integral part of the camera. The contact in the camera is properly placed to assure perfect synchronization every time. It fires the bulb as the exposure is being made. There are no critical timing adjustments to get out of order. The firing action is always positive—always occurring at the precise moment the shutter starts to travel across the plane of the film.

Complete instructions for use of the shutter speeds with longer flash duration bulbs will be found on the instruction sheet accompanying the flash gun.

# FLASH LIGHT PHOTOS ARE EASY WITH A PERFEX

Flash light photography is fascinating, highly interesting, and surprizingly easy. Taking pictures indoors or at night not only lengthens the photographic day; but brings before our camera lens a host of subjects not to be had at other times. The high efficiency of our modern flash bulbs coupled with their low prices, places this fascinating branch of photography within reach of all serious minded amateurs.

# CARE OF THE PERFEX CAMERA AND LENS

All working parts of the Perfex camera are accurately machined and fitted to assure smooth, trouble-free operation. Do not under any circumstances attempt to oil the mechanism. It is free working in all its adjustments and no force is required in its manipulation. If force seems necessary it is a sure sign that something is wrong. Locate and correct the trouble before proceeding. Protect the camera from dust and dirt. Dust it out occasionally with a camels hair brush.

Do not take the lens apart. Never unthread the lens elements. If cleaning is necessary breathe lightly on the lens surface and wipe off with lens tissue or Kleenex... or a well laundered silk handkerchief may be used. If dust or dirt lodge within the lens it should be sent to the factory for cleaning.

Reasonable care in the treatment of your camera will reward you with finer pictures—and a lifetime of trouble-free service.



#### DO NOT

Do not attempt to wind the shutter with the speed adjustment knob.

Do not attempt to fix the camera if anything goes wrong. Return it to the factory.

Do not force the mechanism. It is so designed that all parts work easily. If force seems necessary, locate the trouble and correct it.

Don't guess at distance—use the range finder for automatically focusing the lens.

Don't guess at exposure speeds. Light values can fool the best of us. Use the exposure meter and be sure,

Don't take the lens apart. If cleaning is necessary clean the outside surfaces only. See paragraph on "Care of Camera."

Do not attempt to take pictures with the camera held in the hand at shutter speeds under 1/25th second. The slightest movement of the camera during the exposure will blur the negative. Use a tripod.



No subject is too difficult for the Perfex forty-four. The small negatives because of their extreme sharpness may be enlarged many diameters without apparent loss of detail.

# ACCESSORIES FOR BETTER PICTURES WITH THE PERFEX

On the following pages are listed various accessories for use with the Perfex forty-four camera. These accessories have been designed for the camera assuring perfect fit and satisfactory performance. They may be secured from the dealer where you purchased the camera.

The use of proper accessories will widen the scope of your picture making activities . . . enabling you to turn out pictures of professional quality. Of course, good pictures can be made without the use of accessories. However, a carrying case and filters are recommended for general use. Other accessories may be added from time to time to cover the particular branch of photography for which they have been designed.

## THE PERFEX EVEREADY CARRYING CASE



#### LIST PRICE \$5.00

A specially designed all leather case of the eveready type. Provides utmost convenience for carrying the camera—and most important of all, it protects the camera from scuffs and damage. The fine mechanical design of the Perfex Camera should prompt you to accord it the same care and attention you would a fine watch. The camera's mechanism is rugged. It will withstand the wear and tear of everyday use without harm. The mechanism, however, must be kept clean. Dust and grit are the amateur photographer's greatest

Dust and grit are the amateur photographer's greatest enemies. At the beach or seashore it is almost impossible to keep it free from sand. A good carrying case will do more to protect your camera from dust and grit in normal use than anything else you might do.

The eveready case permits the free use of the camera for taking pictures—and openings are provided at all points where adjustments must be made.

The camera is firmly anchored to the case by a retaining screw which connects to the tripod socket of the camera, eliminating the possibility of the camera slipping out of the case accidently.

A shoulder strap completes the case assembly—provides a convenient means for carrying the camera in instant readiness for a picture. It is recommended that you purchase a camera carrying case when you buy the camera. It is economically priced at \$5.00 and considering the convenience it provides and the protection it affords the camera it quickly pays for itself. If you do not have one, avail yourself of the first opportunity to pick one up from the dealer where you purchased the camera.

### INTERCHANGEABLE LENSES

The Perfex Forty-four camera is designed to permit the instant interchange of lenses. This is accomplished by merely screwing out the present lens and screwing in  $\alpha$  new one.

The advantages of a battery of lenses are obvious and in newspaper



F:3.5-2 INCH LENS



F:2.8-2 INCH LENS



F:4.5-6 INCH TELEPHOTO

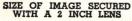
work, sports photography and travel they will prove indispensible. The lens regularly furnished with the camera whether F:3.5 or F:2.8 has a focal length of two inches. This covers an angle of approximately 45 degrees, giving you on the negative a picture that covers an area as it would normally be viewed by the eye—and for all general use this 2 inch focal length is recommended.

Telephoto lenses are lenses of greater focal length
—covering a more restricted angle of view. This provides

an enlarged image of the subject—giving you in effect a closeup of a distant object. The longer the focal length the greater the image size. Thus, a lens having a focal length of 4 inches will give you an image size twice as large as a lens

## INTERCHANGEABLE LENSES—Cont.







SIZE OF IMAGE SECURED WITH A 4 INCH LENS



SIZE OF IMAGE SECURED WITH A 6 INCH LENS

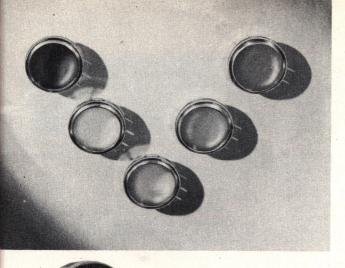
The above illustrations show you the relative image sizes secured—from the same camera position—when using lenses of 2, 4 and 6 inch focal length. A good telephoto lens is indispensible when photographing distant subjects.

of two inch focal length. A lens of 6 inch focal length will give you an image half again larger than that of a 4 inch lens or 3 times that of the standard 2 inch lens from the same camera position.

The illustration shows you the relative image size secured with 2, 4 and 6 inch lenses—all from the same camera position.

The interchange of lenses is so arranged on the Perfex forty-four that the range finder coupling unit operates with equal efficiency on either the F:3.5 or F:2.8, 2 inch lenses.

In sports photography when you desire to snap the action of a baseball play—or a racing scene, etc., where you cannot get sufficiently close to the action to get an image of good size a telephoto lens is necessary. It enables you to get a suitable size image from a greater distance.



# PERFEX COLOR FILTERS

- YELLOW
- GREEN
- RED
- ORANGE
- HAZE

IN SLIP-ON CELL MOUNTS TO FIT PERFEX F3.5 AND F2.8 LENSES



Color Filters for the Perfex forty-four camera are available in those colors most commonly used in both amateur and professional photography. They enable the amateur to produce pictures of improved monochromatic quality—to secure improved contrast in colored subjects or to get the clouds in the picture.

Perfex Color Filters are a scientifically designed, thoroughly stable product that overcome the short comings of many present types of filters.

The color, accurately controlled for density and spectral cut-off is fused into the glass. It is not subject to discoloration or deterioration. Both surfaces of the filter are ground optically flat—eliminating possible distortion of the image. Perfex Filters are mounted in attractive chrome plated cells, which are designed to slip over the regular camera lens. The cells are accurately formed

## PERFEX COLOR FILTERS—Cont.

to securely retain the filter in a parallel plane with the camera lens. Perfex filters are not stained geletin—the color is in the glass which is ground optically flat to assure freedom from distortion.

The judicious use of Filters by the Perfex operator will find its reward in finer negatives—and improved tone values in the finished prints. While modern films are sensitive to all visual colors—their response to certain colors is not as the eye sees them. Most panchromatic films are over sensitive to red and all orthochromatic emulsions are over sensitive to blue. The proper use of filters provides a controlling factor that enables us to better balance this uneven color sensitivity—enabling us to produce pictures of finer, more natural tone rendition. They enable us to control contrasts, to over emphasize when necessary to secure special effects.

#### YELLOW 2X

Provides medium correction on both orthochrometic and panchromatic emulsions. Holds back the blue of the sky permitting the clouds to register on the film. Exposure factor 2 times.

#### YELLOW 4X

Provides increased correction. Permits blue to register as  $\alpha$  definite tone. Aids in cutting through haze, etc. Exposure factor 4 times.

#### **GREEN 2X**

Provides ideal correction when used on panchromatic emulsions. Gives beautiful cloud effects in outdoor work. Exposure factor 2 times.

#### **GREEN 4X**

Provides slight over-correction on blue and green when used with panchromatic films. Fine for pictorial effects. Exposure factor 4 times.

#### ORANGE 2X

To be used with red sensitive or panchromatic emulsions only. Makes green register light—blue dark. Exposure factor 2 times.

#### LT. RED 4X

A light red filter for use with panchromatic emulsions only. Blue as a darker tone. Fine for dramatic effects. Exposure factor 4 times.

#### DK. RED 8X

For use with panchromatic and infra-red emulsions only. Blue as black. Cuts through haze, etc. Exposure factor 8 times,

#### HAZE

Filters the ultra-violet. Requires no appreciable increase in exposure. For use in high altitudes, etc.

### LENS EXTENSION TUBES



Provides a convenient means for supporting the lens at a greater distance from the film—providing a greatly enlarged image when working close-up to the subject. Enables you to photograph small objects larger than actual size. Subsequent enlargements give you grotesque effects of commonplace subjects.

Lens extension tubes are available for use with the Perfex forty-four Camera. They open a new vista of picture making possibilities for the amateur. These tubes act as a rigid bellows to support the lens at a greater distance from the film. Pictures of small objects may be made actual size, or, with the longer extension tubes, greater than actual size. Such negatives, when subsequently enlarged provide startingly dramatic pictures of commonplace subjects.

This branch of photography, known as macragraphy is proving extremely popular. The extension tubes are threaded at each end. The lens should be removed from the camera and mounted on one end of the tube—the other end of the tube is then threaded into the camera. When using an extension tube focusing must be extremely accurate. Because of the extended position of the lens the coupled range finder cannot be used. The following table will prove a valuable guide to securing sharp negatives.

Length of Extension Tube, Inches Area Covered by Lens, Inches	$\frac{11}{32}$ "8x5	1" 3x2	2" 1½x1	4" 3/4 x 1/2	$\begin{array}{c} 6'' \\ \frac{15}{32} \mathbf{x}_{16}^{5} \end{array}$	
Working Distance, Camera to Subject, Inches	12	51/2	31/2	21/2	21/8	

Because of the close distance between camera and subject parallax must

# LENS EXTENSION TUBES—Cont.

be allowed for—as when the image is properly centered in the view finder, it is not properly centered to the lens.

These difficulties can be overcome by focusing on a ground glass. To accomplish this the back of the camera should be removed and a ground glass placed in the film track—with the ground side of the glass facing the camera lens. Thus, you see the image on the ground glass, permitting accurate focusing and centering of the subject.



# THE AMERICAN MADE CANDID CAMERA

Manufactured and Guaranteed by

# CANDID CAMERA CORPORATION of AMERICA

844 WEST ADAMS STREET

CHICAGO, ILLINOIS

### DEPTH OF FIELD TABLE

The table below shows the range of sharpness secured with Perfex F:3.5 and F:2.8, 2 inch lenses, when set at any lens stop or focused at any distance. The first column shows the lens stops while across the top the various focusing distances are shown. The table shows you in feet and inches the point from which sharp definition starts to where it ends.

DIAPHRAGM OPENINGS	RANGE OF SHARPNESS WITH LENS FOCUSED AT							
	INF.	50 FT.	30 FT.	20 FT.	15 FT.	12 FT.		
F1.5	125'-Inf.	36'8"-86'	24'-40'	17'2"-24'	13'8"-17'6"	10'10''-13'4"		
F1.9	90'-Inf.	31'8"-120'	22'5"-45'6"	16'5"-25'5"	12'6"-18'8"	10'7"-13'9"		
F2.8	63'-Inf.	28'4"-Inf.	20'3"-57'10"	15'3"-29'2"	12'-19'8"	10'-14'9"		
F3.5	50'-Inf.	24'8"-Inf.	18'8"-76'10"	14'5"-33'1"	11'6"-22"	9'8"-15'9"		
F4.5	37'-Inf.	21'8"-Inf.	17'-125'	13'8"-39'8"	11'-25'4"	9'3"-17'3"		
F5.6	30'-Inf.	18'4"-Inf.	15'3"-Inf.	12'5"-52'9"	10'-31'	8'8"-19'6"		
F8	20'-Inf.	15'-Inf.	12'8"-Inf.	10'9"-Inf.	9'-55'	7'9"-26'5"		
F11	16'-Inf.	13'4"-Inf.	10'6"-Inf.	9'3"-Inf.	7'8"-Inf.	6'10"-47'6"		
F16	10'-Inf.	10'-Inf.	8'2"-Inf.	7'5"-Inf.	6'4"-Inf.	5'9"-Inf.		
F22	7'-Inf.	8'-Inf.	6'8"-Inf.	5'7"-Inf.	5'3"-Inf.	5'-Inf.		
F32	7'-Inf.	7'-Inf.	5'-Inf.	4'4"-Inf.	4'-Inf.	3'4"-Inf.		

DIAPHRAGM		RANGE OF SHARPNESS WITH LENS FOCUSED AT							
OPENING	10 FT.	8 FT.	7 FT.	6 FT.	5 FT.	4 FT.	3 FT.		
F1.5	9'3"-10'9"	7'8"-8'9"	6'4"-7'8"	5'8''-6'3''	4'9"-5'2"	3'11"-4'2"	2'11"-3'1"		
F1.9	9'-11'4"	7'7"-9'4"	6'4''-7'9"	5'7"-6'4"	4'8"-5'4"	3'10"-4'4"	2'91-3"-3'11-3"		
F2.8	8'7"-12'	7'4"-9'2"	6'4"-7'11"	5'6"-6'7"	4'7"-5'6"	3'8"-4'4"	2'10"-3'2"		
F3.5	8'4"-12'7"	6'11"-9'7"	6'1"-8'2"	5'5"-6'11"	4'6"-5"7"	3'73"-4'5"	2'93"-3'21"		
F4.5	7'11"-13'4"	6'7"-10'2"	5'11"-8'7"	5'2"-7'1"	4'5"-5'10"	3'7"-4'6"	2'9"-3'3"		
F5.6	7'6"-15"	6'4"-10'11"	5'8"-9'1"	5'-7'6"	4'4"-6"	3'6"-4'7"	2'82"-3'32"		
F8	6'10"-19'	5'10"-12'11"	5'4"-10'5"	4'8"-8'5"	4'-6'6"	3'5"-4'11"	2'7"-3'53"		
F11	6'1"-29'8"	5'3"-17'	4'10"-13"	4'4"-9'11"	3'10"-7'6"	3'2"-5'5"	2'61"-3'81"		
F16	5'4"-160'	4'8''-38'	4'2"-17'8"	3'10"-13'	3'5"-9'4"	3'-7'	2'43"-4'1"		
F22	3'6"-Inf.	4'-Inf.	3'5",50"	3'4"-25"	3'-14'4"	2'8"-9"	2'2"-4'103"		
F32	3'4"-Inf.	3'4"-Inf.	3'-Inf.	2'10"-Inf.	2'6''-80'	2'4"-19'	1'11"-6'10"		

