

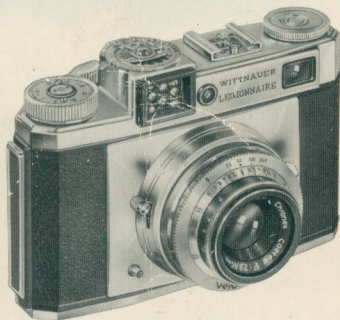
# Wittnauer



KEY TO QUALITY

Operating Instructions  
For the Fully Automatic  
Wittnauer 35mm Cameras

ADVENTURER & LEGIONNAIRE MODEL

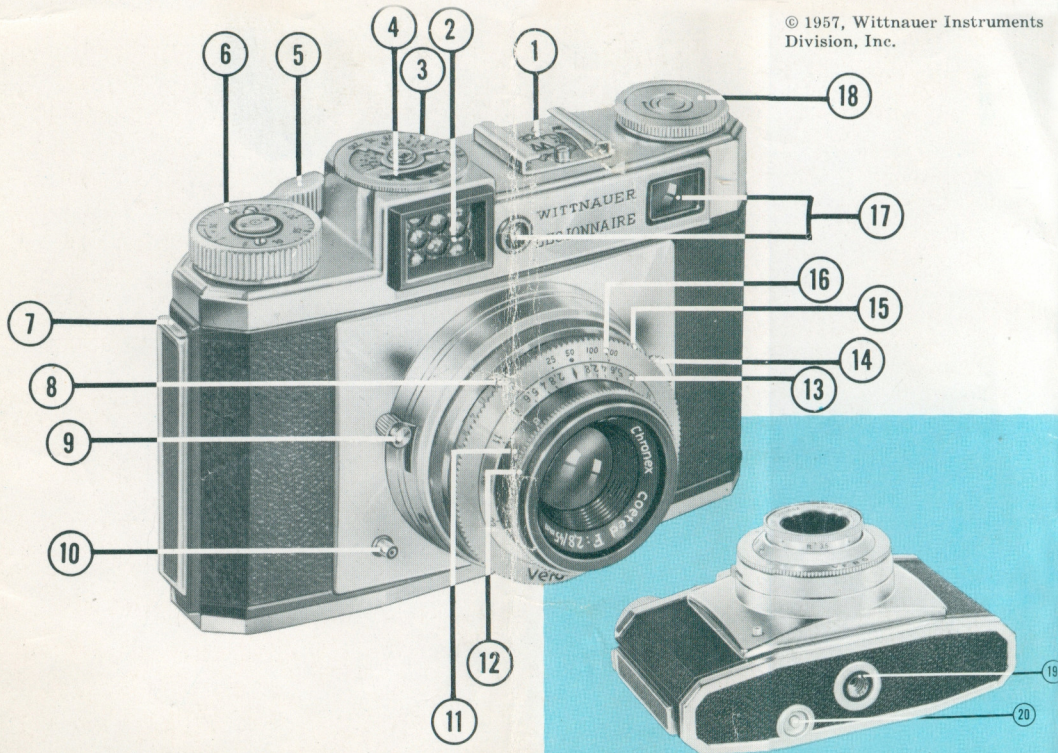


WATCHMAKER-PRODUCED BY WITTAUER INSTRUMENTS DIVISION, INC.

*The Automatic Wittnauer  
Adventurer & Legionnaire Models*

© 1957, Wittnauer Instruments  
Division, Inc.

- |   |  |
|---|--|
| 1. Accessory shoe.  | 7. Cover latch.  |
| 2. Exposure meter (Legionnaire model).  | 8. Diaphragm setting scale.                              |
| 3. Exposure meter calculator (Legionnaire model).   | 9. Shutter release.                                      |
| 4. Exposure meter indicator (Legionnaire model).  | 10. Flash contact.                                       |
| 5. Rapid advance lever (single stroke advances film, counts exposure, winds shutter, releases double exposure prevention device). | 11. Focusing scale.                                      |
| 6. Exposure counter (subtracting type — shows how many exposures remain in film cartridge).                                       | 12. Focusing ring.                                       |
|   | 13. Depth of field scale.                                |
|   | 14. Diaphragm setting lever.                             |
|   | 15. Shutter speed setting ring.                          |
|   | 16. Shutter speed scale.                                 |
|   | 17. Combined viewfinder and rangefinder viewing windows. |
|   | 18. Rewind knob.   |
|   | 19. Tripod socket.                                       |
|   | 20. Rewind button.                                       |



**C**ONGRATULATIONS on your choice of the fully automatic Wittnauer camera. Your new camera will repay you manyfold with years of fine photography. For here, truly, is the perfect blend of optical and engineering automation. Made with WATCHMAKER skill and precision, the outstanding Wittnauer 35mm camera offers every advanced and useable photographic feature.

The new Wittnauer "high definition" CHRONEX lenses have been computed with the most modern mathematical formulas and are ground to exacting specifications to insure razor-sharp clarity and full color fidelity. All glass—air surfaces are coated to reduce internal reflections and assure brilliant pictures. Wittnauer quality cameras are versatile enough to meet the most demanding photographic assignments.

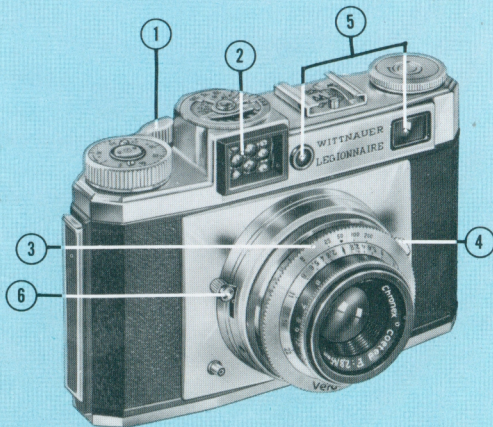
On the following pages you will find a full description of the many features designed to make Wittnauer picture-taking more successful. Please read this booklet carefully before using the camera.

*Wittnauer Instruments Division, Inc.*

THE LONGINES-WITTAUER BUILDING  
580 FIFTH AVENUE, NEW YORK 36, N. Y.

## *Operation of the Fully Automatic Wittnauer 35mm Camera*

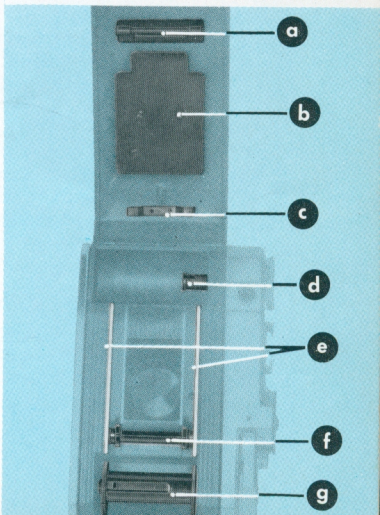
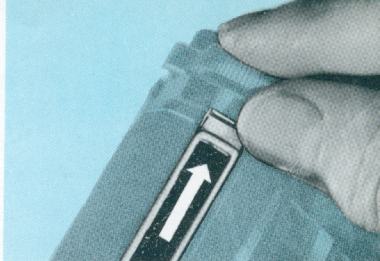
- 1.** Advance film and wind shutter by moving rapid wind lever once.
- 2.** Measure light value with built-in meter (on Reporter and Legionnaire models only).
- 3.** Choose most desirable shutter speed.
- 4.** Adjust diaphragm.
- 5.** Focus and view subject.
- 6.** Release shutter—take picture.



## To Open the Camera

Pull out the back panel cover latch located directly below the rapid wind lever. When the locking bar has been disengaged, the back panel will swing outwards. The back panel can then be fully opened and pivots on a hinge on the left side of the camera. Do not put excessive strain on the back while open as it has been carefully fitted at the factory and proper alignment is important to correct closure and long life.

- a. film retaining roller (recessed so metal roller does not actually contact negative area).*
- b. pressure plate holds film perfectly flat and in focal plane during exposure.*
- c. cartridge retaining spring.*
- d. rewind post.*
- e. film plane guide channels.*
- f. film advance sprocket.*
- g. film take-up spool.*

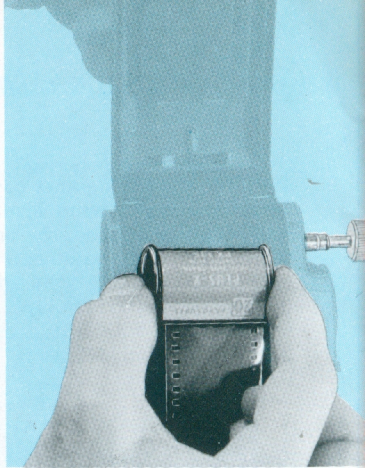


## *Inserting the Film*

Pull out the rewind knob as far as it will go and insert a fresh cartridge into the empty chamber. The cartridge is inserted so that the long projection is towards the bottom of the camera. Push the rewind knob back into its original position, turning it gently at the same time so that the slot in the rewind post engages the crossbar of the film spool.

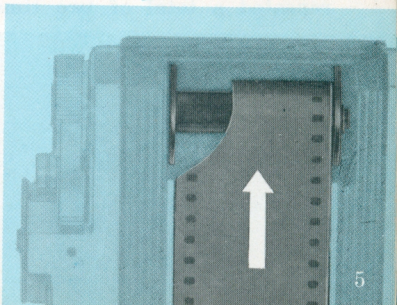
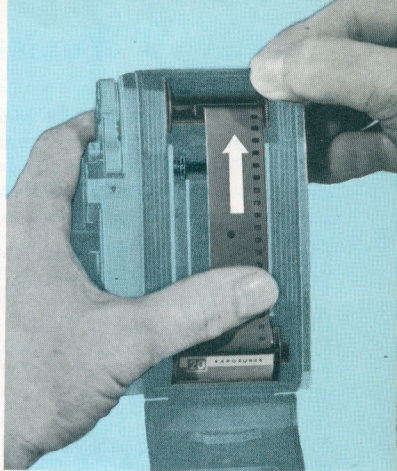
Modern emulsions are extremely light sensitive and even the most carefully constructed cartridge should be protected from the direct rays of the sun. Load and unload the camera in the shadow of a tree or building. If no shadow areas are available, turn your body so that your own shadow will offer protection.

Protect film cartridge from physical damage or abuse. Rough usage may tend to distort the cartridge and destroy its light-proofing ability. To further protect film, do not allow loaded cartridges to be stored at high temperatures.



## *To Attach Film and Complete the Loading Operation*

Pull out enough of the trimmed film leader so that the end can be inserted into the slot of the take-up spool. The notch in the take-up spool should catch on a film sprocket hole. The take-up spool may be freely rotated by turning in the direction indicated. At the same time, engage the perforations in the film with the sprockets of the film advance wheel. Continue to turn the take-up spool and draw film out until the sprockets have engaged perforations on both sides of the film. Enough extra film has been supplied by the manufacturer to provide for the leader used when loading. The correct number of exposures still remain in the cartridge. Now, close the camera back. A slight pressure will be felt when the back is almost closed. This is normal and is the result of the action of the pressure plate which forces the film into the correct focal plane. With the back held firmly closed, snap the cover latch into position and the camera is made completely light tight.



## To Set the Exposure Counter

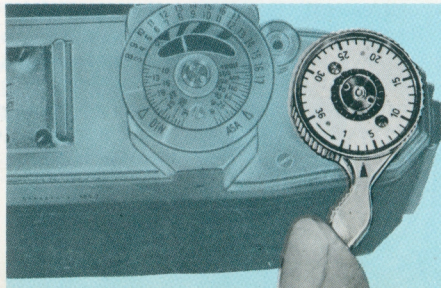
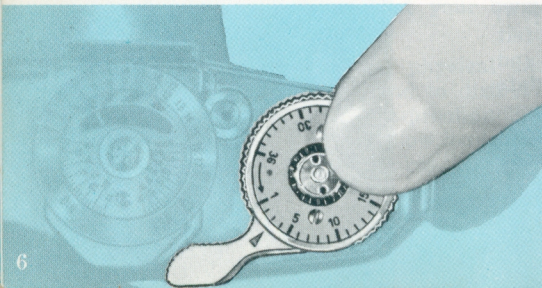
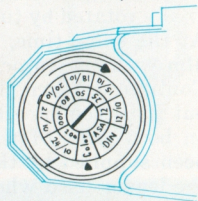
The exposure counter is located on the rapid wind lever and is of the SUBTRACTION TYPE. It will count backwards to show, at a glance, the number of UNEXPOSED FRAMES still available.

Before taking the first picture, set the exposure counter by bringing the red dot (near the number 36) into register with the black index mark on the rapid wind lever. (When using a 20-exposure cartridge, register the green dot). This is accomplished by rotating the counter disc in direction of arrow. Now, advance the rapid wind lever fully and release. Press the shutter release button. This operation is repeated a total of two times until the

number 36 (or 20) is opposite the indicator mark. Advancing these two frames removes film that may have been "fogged" during the loading process.

*Note: Champion, Constellation, Challenger and Continental models are provided with a built-in film speed reminder dial.*

When setting the exposure counter, also set the film speed dial. This handy indicator will remind you (after the camera has been put aside) of the type and speed rating of the film currently loaded in the camera.





# The Rapid Wind Lever and Film Transport Mechanism

A single rotation of the rapid wind lever:

1. Advances the film to the next unexposed frame.
2. Winds the shutter.
3. Counts the exposure.
4. Unlocks the double exposure prevention mechanism.

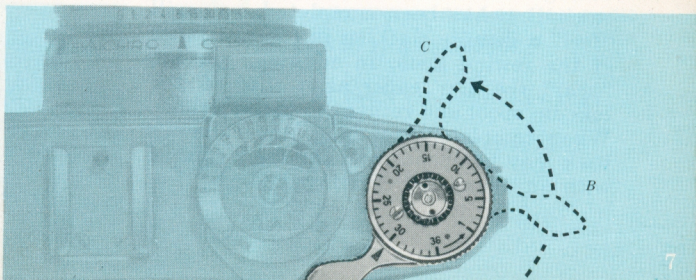
The high speed single stroke rapid advance lever makes Wittnauer one of the fastest handling of all 35mm cameras. With practice, a shooting speed of over one frame per second can be achieved. Thus, action sequences and complete picture stories can be captured with ease and precision by

the imaginative photographer.

Using the thumb, push the lever to the right as far as it will go. Then allow it to return to its original position. The exposure can now be made by pressing the shutter release button. The shutter release can be operated **ONLY** if the wind lever has been **FULLY** advanced (thus preventing double exposures). If this action has not been properly completed, the lever will remain stationary, and must **NOT** be forced back into its rest position. In this case, merely advance the lever to its fullest extent and it will once more disengage and automatically return to the rest position.

*Rapid Wind Lever:*

- A. Rest position
- B. Partially advanced position
- C. Fully advanced position



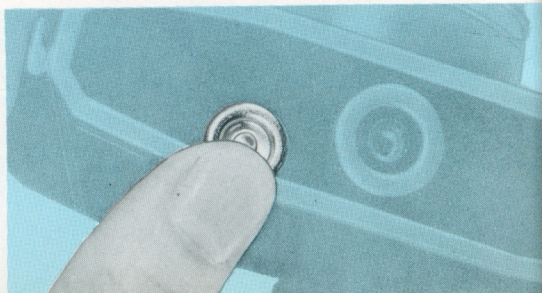
## To Unload

When the last frame has been exposed, the exposure counter will indicate the number 1. Do not continue to advance the film beyond this point or it may be torn from its protective cartridge.

Exposed film should be rewound into the cartridge so it may be taken from the camera in ordinary room or daylight. To do this, turn the camera over and depress the rewind locking button. At the same time, lift the rewind knob slightly and turn it in the direction indicated by the engraved arrow until all film has been rewound. The rewind locking button must be held down during the entire rewinding process. When rewinding has been completed, you will "feel" a definite slacking in the resistance of the rewind knob. In addition, you can "hear" the film leader as it slips off the take-up spool and returns to the cartridge. When completely rewound, the camera's back may be opened and the film replaced with an unexposed cartridge.

### *CHECKING THE REWIND ACTION*

The rewinding action can be checked by releasing pressure on the locking button during the rewinding operation. If the mechanism is working properly, considerable resistance to further rewinding will be noticed. DO NOT ATTEMPT TO FORCE THE REWIND KNOB, OR THE FILM PERFORATIONS WILL BE TORN. To continue the rewind operation, depress the rewind locking button once more. If, during the above test, no resistance is noticed after the locking button has been released the film has been pulled from the cartridge and the camera should be opened only in a darkroom.



## In Review

### HOW TO LOAD FILM



**1. OPEN THE CAMERA.**



**2. INSERT UNEXPOSED FILM CARTRIDGE** (protect film from direct sunlight).



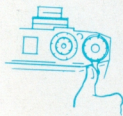
**3. ATTACH FILM TO TAKE-UP SPOOL** AND ENGAGE PERFORATIONS WITH SPROCKETS OF ADVANCE WHEEL.



**4. CLOSE AND LOCK THE CAMERA BACK.**



**5. SET EXPOSURE COUNTER.**



**6. ADVANCE RAPID WIND LEVER TWICE** (each time the rapid wind lever is advanced, the exposure button must be pressed).

### HOW TO UNLOAD AFTER THE LAST EXPOSURE HAS BEEN MADE



**1. DEPRESS REWIND LOCKING BUTTON.**



**2. TURN REWIND KNOB IN DIRECTION OF ARROW, WINDING THE ENTIRE ROLL OF FILM BACK INTO THE CARTRIDGE.**



**3. OPEN THE CAMERA BACK.**



**4. REMOVE CARTRIDGE FOR PROCESSING.**

## *Focusing and Viewing*

### *Scout and Reporter Models*

The distance from the camera to subject—estimated or established by means of an accessory rangefinder—is brought into register with the black diamond-shaped mark in the center of the “depth of field” ring by rotating the milled ring on the front of the lens mount. The lens turns smoothly in its mount and may be set at any distance from 3 feet to infinity.

### *Adventurer and Legionnaire Models*

Sight through the viewfinder window. In the center of the field of view, you will see a bright amber colored circle. This is the rangefinder image and since the rangefinder is internally coupled to the lens, setting the finder automatically adjusts the lens for perfect focus.



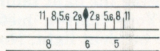
## To Use the Rangefinder

### *Adventurer and Legionnaire Models*

Focus the lens by turning the focusing lever on the lens mount. At the same time sight through the viewfinder and notice that a double image of the subject will appear in the circular bright spot in the center of the field. By turning the focusing lever, the two images can be made to coincide perfectly. When this occurs, correct focus has been attained and no further adjustment is necessary.

The exact camera-to-subject distance can be read (in feet) from the scale on the lens mount.

Focus so that the most important part of the subject



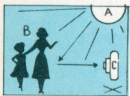
is perfectly aligned in the rangefinder. An area in front of and behind the subject will also be in focus (depending on the diaphragm opening selected). This area is called "depth of field". For more information on how to use your built-in "depth of field" scales, see pages 16 and 17.



## If your camera is equipped with light meter (Reporter and Legionnaire models), please read the following:

The built-in photoelectric exposure meter provides two scales of measurement—one scale for bright sunlight and additional sensitivity for weak light-readings.

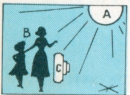
Light can be measured in two basic ways—



REFLECTED

**1. Reflected light**—or the light actually REFLECTED from the subject to the camera lens.

This is the most commonly used form of measurement and is unusually well adapted to the Wittnauer camera since the lens and built-in meter are, for all practical purposes, at the same point, and so receive the same amount of reflected light.



INCIDENT

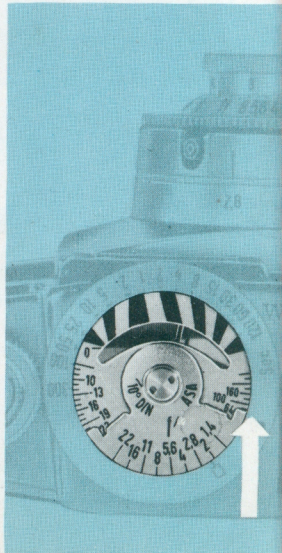
**2. Incident light**—or the light falling on the subject. Your built-in meter will also measure incident light. Note that incident light is measured at the position of the subject. The meter should be pointed towards the position from which the picture will be taken.

- A. Light Source
- B. Subject
- C. Position of Light Meter
- X. Position from which picture will be taken

## Setting the Filmspeed

With the thumbnail, merely turn the inner movable disk (containing the engraved "f" stop markings) until it indicates the ASA or DIN value of the film being used.

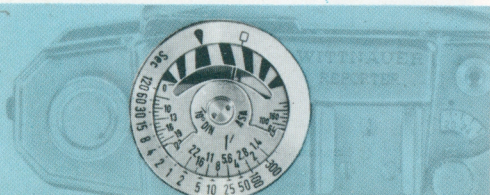
The letters ASA on the dial stand for the "American Standards Association". Film speed ratings on most film purchased in the United States are calibrated by ASA methods. On the left side of the meter ring are ratings for the European or DIN system. This scale may be useful when traveling abroad. Film speeds are marked on the carton or on the direction sheet of each package of film you purchase. Professional workers often adjust the rated filmspeeds to coincide with their own particular processing techniques. If you intend to have your films processed commercially, rely on the published filmspeed data.



### *Reading the Meter and Determining Exposure Times*

Hold the camera in taking position, with the meter pointed towards the subject (basic reflected light system). The needle will point to a black or white sector on its scale. Turn the ring on which the exposure times are marked (outer ring) until the triangular indicator appears above the proper sector. Correct exposure times and diaphragm stops now appear on the lower side of this same ring.

Now, select the combination of shutter speed and diaphragm opening that best suits your purpose. Sports action would call for a high shutter speed (and wide diaphragm), while a scenic view might call for the depth of field possible only with a small diaphragm opening (with slower shutter speed).

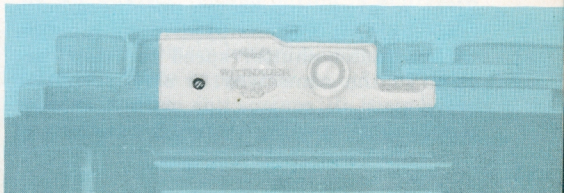


### *Some Important Hints*

- 1. Screen the meter from the influence of excessive skylight (beach, snow or landscape scenes) by tilting the camera slightly downward when taking a reading.*
- 2. To take an exposure reading directly against the sun, shade the honeycomb cell in the same way you would shade the lens.*
- 3. If in doubt, take closeup meter readings of the most important parts of the subject.*

### *Zeroing the Meter*

*If, with the honeycomb window completely darkened, the indicator does not coincide exactly with the 0 mark, it can be adjusted by turning the small reset screw on the back of the camera. NOTE: The zero adjustment is a delicate one—use extreme care.*



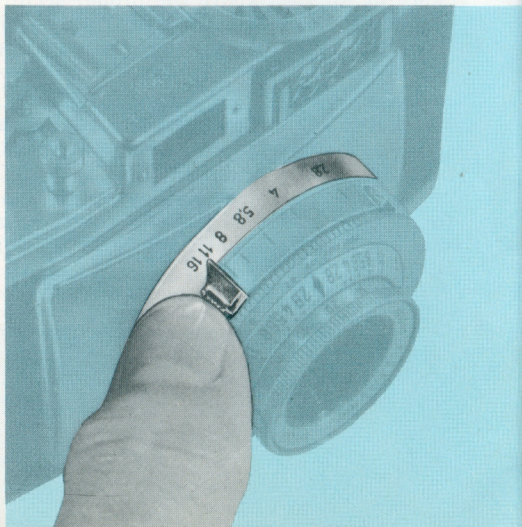
## To Set the Diaphragm Opening

The lens diaphragm is set by means of the lever on the upper side of the lens mount. Bring the arrowhead on the lever into register with the selected diaphragm opening. Note, the *larger* numbers indicate a *smaller* diaphragm opening...which admits less light to the film. Thus, f:16 represents a smaller "opening" than f:2.8.



Each full diaphragm adjustment represents a 100% change in light. F:11 represents twice as much light (under constant shutter conditions) as f:16. Diaphragm openings and shutter speeds form the information needed for correct exposure. Since a larger diaphragm opening admits more light, it may be used in conjunction with a faster shutter speed to "stop" action. In the same way, a slower shutter speed used in conjunction with a smaller diaphragm opening would result in a

greater "depth of field" and greater overall sharpness. For a more detailed explanation of "depth of field" see page 16.





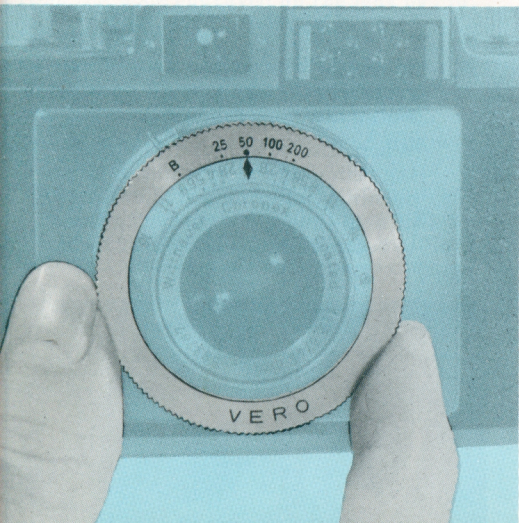
## To Set the Shutter Speed

The Wittnauer Vero Shutter has been subjected to rigorous tests and examinations and is capable of a high degree of accu-

racy. The shutter is automatically wound each time the rapid wind lever is advanced.

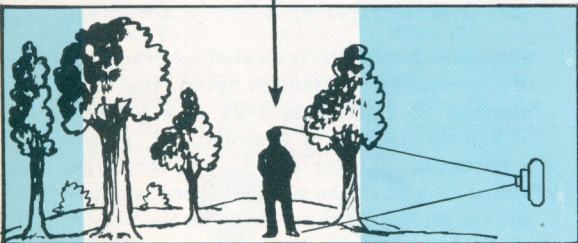
Exposure times are indicated as fractions of a second on the shutter speed ring. The numeral 25 represents  $1/25$  of a second; 50 represents  $1/50$  of a second, etc. To set a particular shutter speed, turn the large milled ring until the selected speed is opposite the diamond-shaped mark on the "depth of field scale". Shutter settings may be made either before or after the film is advanced.

The letter "B" represents bulb. When set on "B", the shutter will remain open as long as the shutter release button is depressed. With the use of a Wittnauer "locking" cable release, extremely long time exposures can be made. Time exposures should not be attempted unless the camera is firmly supported on a tripod or other suitable object.



## Depth of Field

When you focus on this point...



← DEPTH OF FIELD →  
*Picture will be sharp from*  
← Here . . . to . . . Here →

...you are actually in focus throughout an entire zone. This area is called the DEPTH OF FIELD.

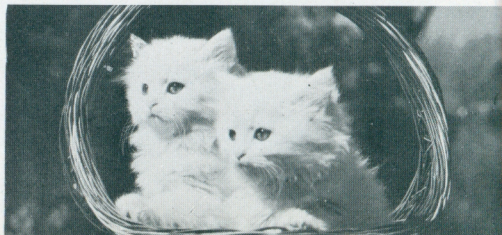
The Depth of Field varies according to the diaphragm opening selected. A small diaphragm opening will provide great depth of field. A large opening will offer a shallow depth of field.



## Some Hints

When your principal subject has great depth—use a small opening and achieve overall sharpness.

When the background is disturbing—eliminate it by using a large opening...offering a shallow depth of field—and allow the background to become blurred and out of focus.

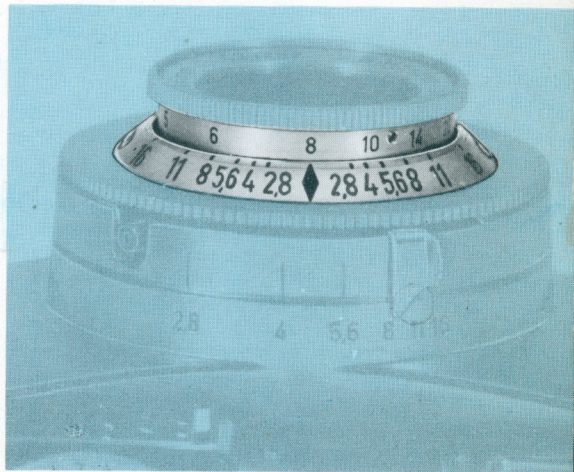


## *Depth of Field Scale Tells Area of Focus for Every Picture*

First focus on the most important subject. Then the zone of sharpness may be read from the scale engraved on the lens mount.

### Example:

Assume the exposure selected results in a diaphragm opening of  $f:8.0$ , read the engraved footage markings opposite  $f:8$  on each side of the lens mount. One side will provide the closest, and the other the farthest limit of sharpness. To adjust the depth of field, merely change the diaphragm opening. (Adjust the shutter speed to maintain correct exposures while changing the sharpness zone.)



## *Internal Synchronization Makes Wittnauer Flash Pictures Simple to Take—Maintains Accurate Exposure*

The fine Vero shutter on your Wittnauer camera is fully synchronized for both electronic flash and flash bulbs.

### *To use expendable Flash Bulbs*

Plug the flash cord (from flash gun) directly into the flash contact on the front of the camera. Now, when the shutter is released, a built-in switch makes electrical contact at precisely the right moment for peak flash efficiency. Thus, the flash bulb is "fired" when the shutter leaves are fully open. To insure full use of the entire light output of the flash bulb, a shutter speed of 1/25 second or slower is recommended. No external adjustments or "bulb type" corrections are necessary with the modern Wittnauer Vero shutter.

### *To use Electronic Flash*

Electronic flash provides a softer light than

a flash bulb and is less expensive to use in the long run because there are no bulbs to replace.

Ask your authorized dealer to demonstrate the Wittnauer Power Flash electronic unit which is compact, carefully engineered and designed to give over 100,000 flashes from a single tube.

To use electronic flash, proceed as above and plug the flash cable into the contact on the front of the camera. When the shutter is released the electronic flash is "fired".

ELECTRONIC FLASH MAY BE USED WITH ANY SHUTTER SPEED.

Flash exposures are determined by "guide numbers" and full instructions accompany your flash unit, or can be found on every package of flash bulbs.

## *Helpful Hints for Better Picture Taking*

WATCHMAKER-MADE WITTNAUER CAMERAS ARE VERSATILE ENOUGH TO MEET EVEN THE MOST DIFFICULT PICTURE-TAKING ASSIGNMENT.

Coupled with today's high speed films, your camera can become the tool through which you may find an important new vista of artistic expression.

When photographing, hold the camera firmly in both hands and release the shutter gently and deliberately without moving the camera. Firm pressure is especially important when slow shutter speeds are used. Watch for "peak" action to capture exciting moments and fleeting expressions. When photographing under extremely adverse light conditions using long exposure times (1 second to 1/15 second) use of a tripod is recommended. In this way, vibration due to pressure on the shutter release is eliminated assuring sharp, crisp pictures.



**C**ARE for your Wittnauer camera as you would a fine watch. The lens should be cleaned periodically, but only with a soft camel's hair brush or lintless lens tissue. Never use eyeglass tissues as they will remove the delicate anti-reflection coating. Keep the camera in its ever-ready case and protect it from unnecessary shock.

Get to know your camera well. You will find it a most pleasant and competent companion.

*Wittnauer Instruments Division, Inc.*

**LONGINES-WITTAUER BUILDING, NEW YORK, N.Y.**

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