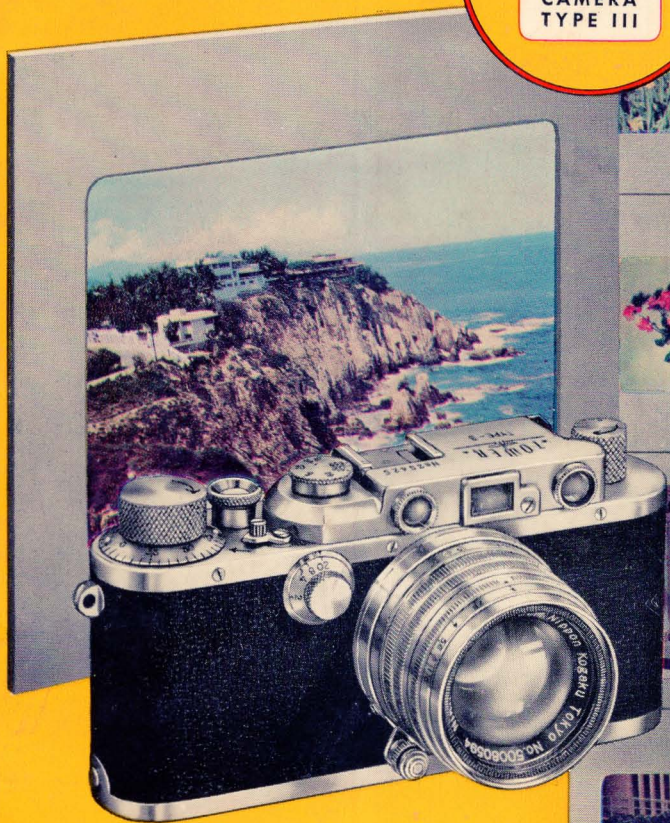
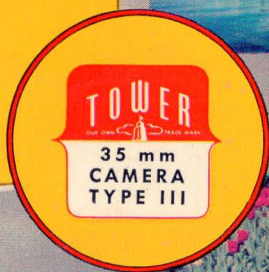


HOW TO USE AND TAKE
CARE OF YOUR NEW

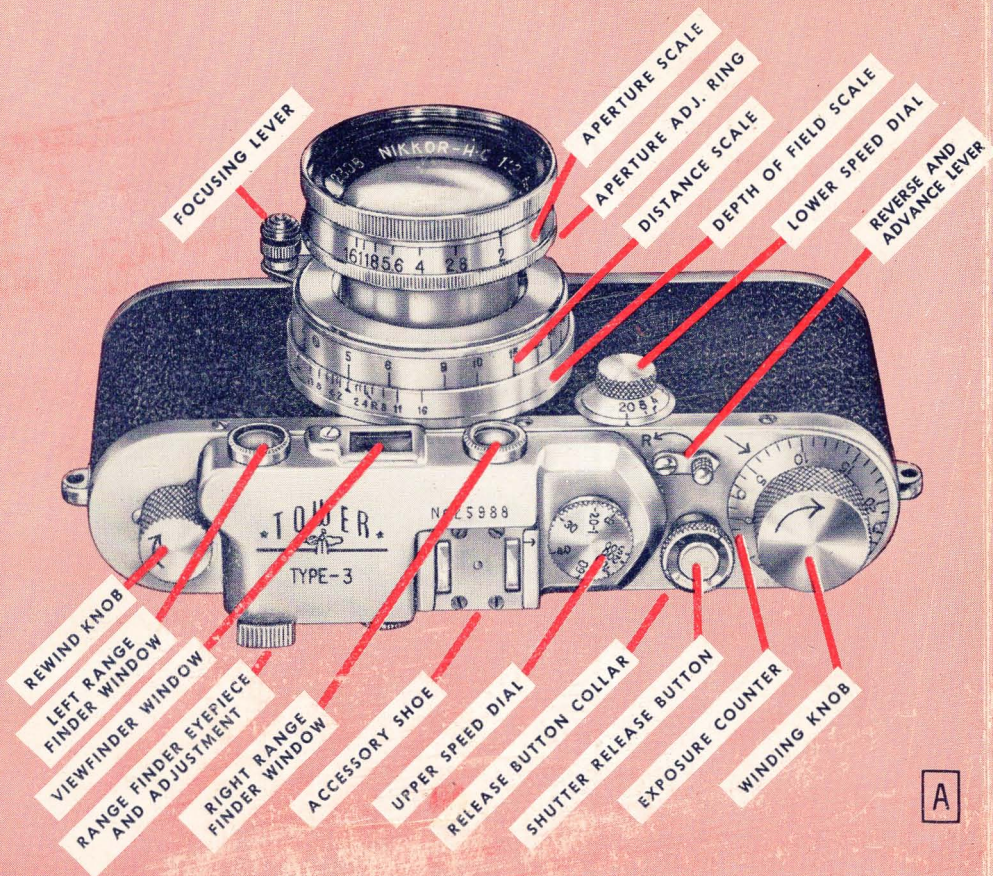


TOWER CAMERAS ARE SOLD ONLY BY SEARS, ROEBUCK AND CO.

INTRODUCTION

Your TOWER 35 mm Type III Camera is a precision instrument. Sears laboratory technicians and buyers have worked with the manufacturers on this camera for more than a year and a half before offering it to you. It is a camera that will last a lifetime, if treated properly

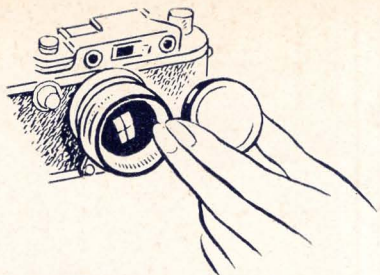
This booklet gives detailed, but simple instructions on its use and proper care. READ BOOKLET CAREFULLY, and keep it handy for reference.



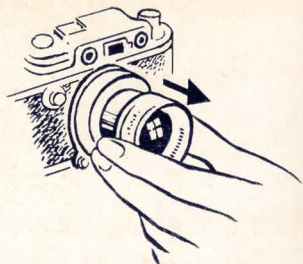
A

We have written this manual in more detail and more technically than is necessary for the ordinary amateur photographer. However, after the amateur has progressed a little in photography, his curiosity will lead him into more advanced stages and the following detailed information is an attempt on our part to anticipate a few of his questions. On the page to the right, we have condensed the steps to be taken when adjusting camera for picture taking. This is all the beginner needs to know. Even the advanced amateur may find it well to memorize these steps and review them occasionally.

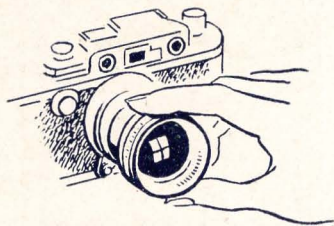
NOTE. The keyed illustration (A) above is frequently referred to throughout the following pages. For that reason, the manual is bound so that you may leave this page open for handy reference.



1 Remove lens cap from lens a simple step which is often overlooked.



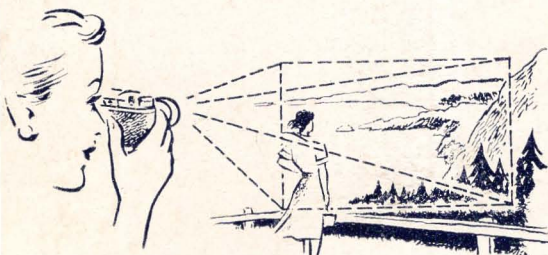
2. If lens is collapsible type, pull out and lock it in position. Make sure it is firmly locked.



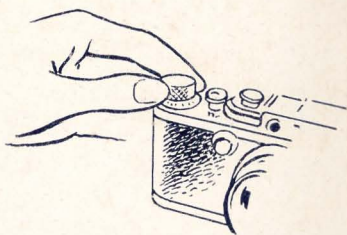
3. Set lens diaphragm to aperture indicated by exposure meter or table.



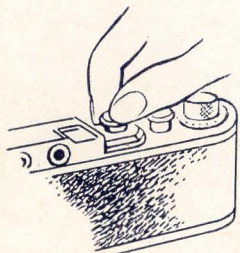
4. Focus lens with rangefinder. Both images should be superimposed so that a single image is seen.



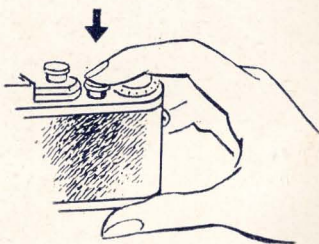
5. Compose the subject in viewfinder. Do it carefully. Good composition is important.



6. Turn winding knob in direction of arrow as far as it will go.



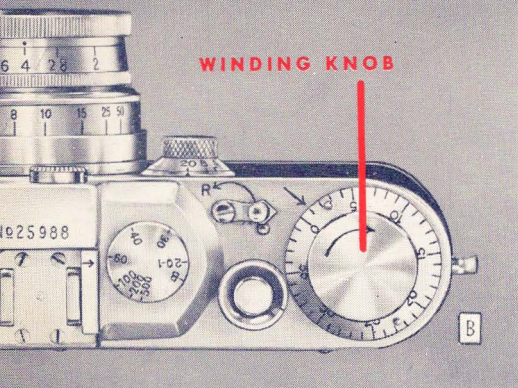
7 Set shutter speed dial according to exposure meter readings or exposure table recommendations.



8. Press shutter release button to expose film. Press button with finger only, not the entire arm.

TABLE OF CONTENTS

1. Use of Upper and Lower Speed Dials.	page 6
2. Winding Shutter and Film	page 7
3. Exposure Counter Mechanism	page 8
4. Coupled Rangefinder	page 9
5. Practice in Use of Rangefinder	page 10
6. The NIKKOR 50 mm f/2 Lens, (with note on focusing at less than 3½ feet)	page 11
7. Changing Lens	page 12
8. Viewfinder	page 14
9. Explanation of Aperture Adjustment	page 14
10. Explanation of Aperture Scale	page 14
11. Aperture Diaphragm Adjustment	page 15
12. Distance Scale on Focusing Ring	page 16
13. Depth of Field Scale	page 16
14. Loading the Camera	page 18
15. Unloading the Camera	page 21
16. Release Button for Shutter	page 22
17. Horizontal and Vertical Pictures	page 23
ACCESSORIES FOR YOUR TOWER 35 mm CAMERA	
Supplementary Lenses	page 24
Care of NIKKOR Lenses	page 26
Focal Length of a Lens	page 26
NIKKOR 50 mm f/2 Lens	page 28
NIKKOR 50 mm f/1.4 High Speed Lens	page 28
NIKKOR 35 mm f/3.5 Wide Angle Lens	page 29
NIKKOR 85 mm f/2 Telephoto Lens	page 29
NIKKOR 135 mm f/3.5 Telephoto Lens	page 30
Universal Viewfinder	page 31
Parallax	page 33
Comparative Field Covered by Various Focal Length Lenses (as seen through the Universal Viewfinder)	page 34
TOWER Camera Carrying Case	page 35
TOWER Lens Shade and Filter Holder	page 36
Additional Accessories	page 36
Repair Service	page 36
Owner's Guarantee	page 37



WINDING KNOB

SPECIAL NOTE

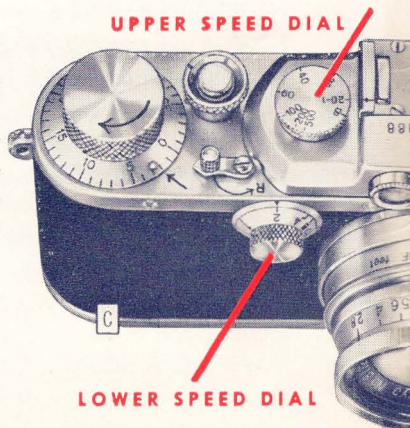
This 35 mm. camera is the first camera in the TOWER line to have shutter speeds that must be set AFTER the shutter has been completely wound. As you wind the shutter, the film is automatically advanced (Illust. B) There is a top, or main shutter speed dial,

that shows shutter speeds or exposure figures from 1/20 to 1/500 of a second. The lower speed dial (Illust. C) has speeds from 1/20 to Time.

1. USE OF UPPER AND LOWER SPEED DIALS

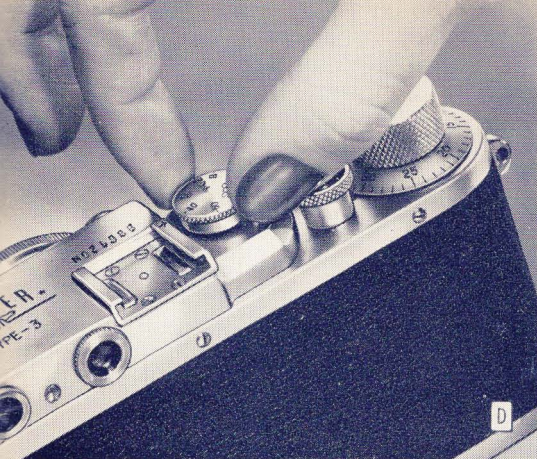
When using lower speed dial on front of camera, the upper speed dial must be placed on "RED 20-1" which is neutral position, AFTER SHUTTER HAS BEEN COMPLETELY WOUND. When upper speed dial is on neutral position (Red 20-1) opposite arrow, then you can bring the lower speed dial into play. Numbers on speed dials indicate fractions of a second. For example, 4 means $\frac{1}{4}$ of a second, 2 means $\frac{1}{2}$ second, etc. INTERMEDIATE SPEEDS CANNOT BE USED. When setting the speed on Bulb (B) on upper dial (Illust. C) the shutter remains open while the release button is pressed down. When the release button is released, the shutter springs shut.

When camera is operated with slow speed dial set on Time (T), the shutter opens when the release button is pressed and remains open. To close shutter, turn slow speed dial back to position 1, and the shutter will close immediately. There's no need to press the release button again to close shutter.



UPPER SPEED DIAL

LOWER SPEED DIAL



IMPORTANT:

To operate shutter on 1/20 of a second, it is necessary to set both dials on RED 20 after you have wound shutter. The upper main dial is moved to various positions after shutter has been completely wound by merely lifting the dial (Illust. D) and turning it so number indicating the desired speed is opposite arrow on accessory shoe. (Illust. B.) Be sure upper dial is lowered or seated into proper position when operating on any shutter speed.

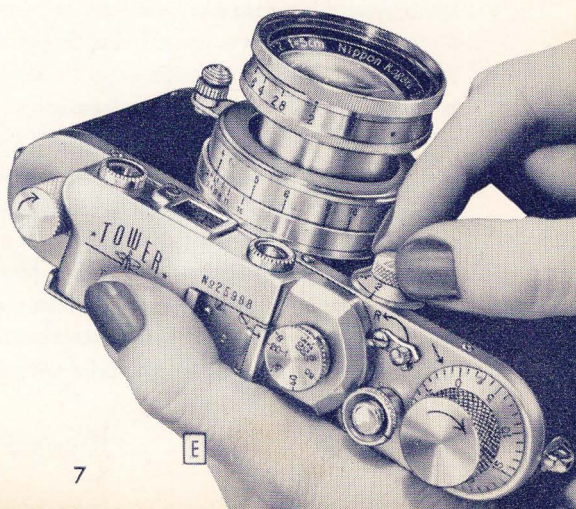
LOWER SPEED DIAL CAN BE TURNED AFTER SHUTTER HAS BEEN COMPLETELY WOUND AND UPPER SPEED DIAL HAS BEEN SET ON RED 20-1 (ILLUST E).

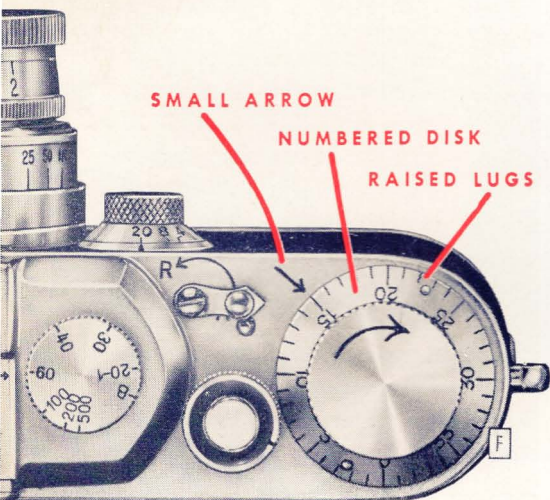
2. WINDING SHUTTER AND FILM—

To wind shutter and wind film, turn winding knob in direction indicated by arrow until it stops. By turning this knob until it reaches a stop position, the film is advanced for the next exposure, thus preventing any possibility of a double exposure. Knob serves dual purpose, as it also winds shutter spring.

CAUTION:

Always wind shutter just prior to taking picture. Never leave camera in a wound position, this may weaken shutter spring, or you might accidentally press release button and expose film.





3. EXPOSURE COUNTER MECHANISM—

The numbered disc just beneath the winding knob (Illust. F) is the exposure counter which automatically records number of exposures. The counter should be set at "0" after camera has been loaded with new film and the shutter fully wound. This

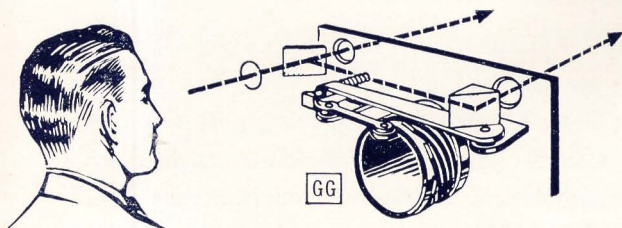
disc is turned in a clockwise direction by two raised lugs. If disc is accidentally pushed beyond "0", continue to push it on around a second time until "0" lines up with small arrow. Do not attempt to turn this disc in a counter-clockwise direction.

EXAMPLE

After film has been loaded into camera (See pages 18-20), the winding knob should be turned once around in direction of arrow until it stops. Shutter release button should then be pressed to release shutter. Once more, give the winding knob one full turn to the stopped position. This winds sufficient film off the full cartridge and on to the take-up spool so that the portion of film accidentally exposed to light during the loading process will not be re-exposed as an attempted picture. Thus, it will prevent fogged pictures at the beginning of film. The numbered disc should then be set so the "0" on disc is opposite small arrow (Illust. F) Shutter release button should again be pressed, and the next time the winding knob is turned into position it will automatically advance film and bring disc to a stop on number one on counting disc. This indicates you are ready to take your first picture.

4. COUPLED RANGEFINDER

Your TOWER 35 mm camera has a coupled rangefinder. It is coupled with a helical type focusing mount on the lens barrel. When the lens barrel is turned by depressing knob on focusing lever (Illust. A) and shifting lever in either direction, barrel automatically turns on a threaded track and moves forward or backward. Accordingly, the rangefinder is automatically put



Lens
out
of focus
a

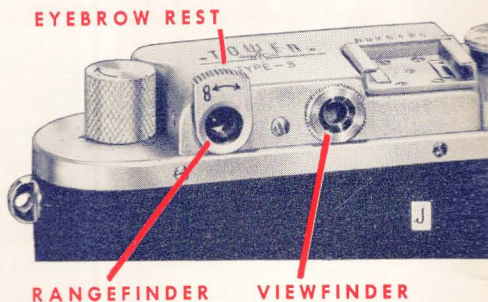


Correct
focus
b

into operation. The rangefinder on the TOWER 35 mm camera is the superimposed image type and absolute focus is obtained when 2 images are superimposed upon each other and become fused into a single image (Illust. G-b). The double image effect is produced by means of micrometer movement of the fine mechanism indicated in Illust. GG. The small arm in this instance is set against the inner base of the lens barrel. As the lens barrel is rotated and thereby moved backward or forward, the leveling devices adjust the mirror to such a precision degree that when the 2 images are fused, the lens is in perfect focus. Note especially that all longer focal length lenses are interchangeable with TOWER, Nicca, and most Leica cameras which have coupled built-in rangefinders.

The rangefinder eye-piece is constructed with a miniature telescope having a magnification of approximately $1\frac{1}{2}$ times. This increases the accuracy and ease of focusing your TOWER 35 mm camera. The viewing

aperture of the eye-piece on the rangefinder is adjusted by turning the small rotating "eyebrow rest" (Illust. J) on eye-piece. This compensates for slight difference in the human eye and facilitates the focusing on near or distant objects to produce the greatest possible sharpness.



5. PRACTICE IN USE OF RANGEFINDER—

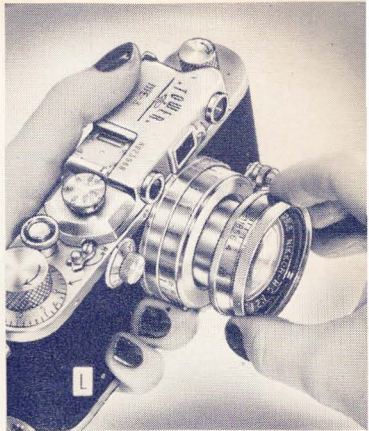
Place camera in position for picture taking (Illust. K) and sight through the rangefinder (left) eye-piece and, at the same time, cover the left rangefinder window (Illust. A) with the middle finger. In this case, you will observe only a small circular field of a pinkish cast in which only what you are focusing on will be visible. Be sure that your eye is actually centered behind rangefinder eye-piece so that you can get a complete circular field of the image. This position being assumed, you may now adjust the lens focusing lever to obtain the greatest possible sharpness. Keep object in center of field, then remove your finger from left window of rangefinder. You will then see a double image of the object in a much larger circular field (Illust. G-a)

Now turn focusing lever until the two images are fused into one (Illust. G-b) At this point your lens is in correct focus. Practice this exercise until it becomes automatic and there is no need of placing finger over the left rangefinder window CAUTION! Do not confuse rangefinder window (left) with regular viewfinder window (right) (Illust. J)



6. THE NIKKOR 50 mm f/2 LENS—

The early TOWER 35 mm camera is equipped with the f/2 50 mm lens, of the collapsible type (Illust. L) The 50 mm lenses of the Leica, Nicca and TOWER cameras with coupled rangefinders are mostly interchangeable. Before taking a picture with the TOWER 35 mm camera it is quite obvious that the lens cap should be removed. Next pull out lens, grasping only front knurled ring (Illust. L) Take care that only the FRONT KNURLED RING is gripped between the fingers. Do not make a mistake and grip the second knurled ring which serves to adjust the aperture. This second ring is used to adjust the delicate aperture within the lens, and if the lens barrel were to be pulled out by second ring, and given a sharp hard turn clockwise into locking position, it might damage the delicate metal leaves in the iris diaphragm within the lens. Lock the lens into position by turning it in a clockwise direction until it stops. This brings the small flanges into the grooves inside the lens mount. To push lens back into camera body, simply take hold of outer knurled ring and turn in a COUNTER-clockwise direction. This disengages flanges from grooves in base of lens mount. Then simply shove lens back into body of camera.



When lens is not in use it should be collapsed into its mount and the lens cap placed on its front. The lens focusing lever should also be locked at the infinity position (∞) by pressing knob on end of lever, which permits shifting lever into locked position. Long focal length lenses such as the 85 mm and 135 mm (so-called "telephoto" lenses), are focused by means of the knurled ring and are non-collapsible. There is no lens focusing lever on these lenses. (See pages 29-30.)



NOTE ESPECIALLY: Present model TOWER cameras are equipped with the non-collapsible type lens (Illust. M) In this case there is nothing to pull out. Simply take the lens cap off before taking picture.

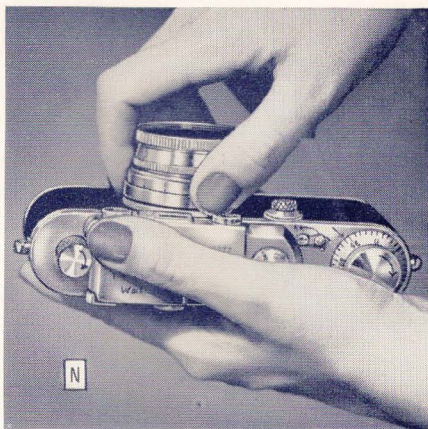
The non-collapsible lenses focus as close as 1½ feet. The rangefinder, however, does not operate for distances less than 3½ feet, so any pictures taken at less than 3½ feet will have to be measured with a tape from camera to subject, and the corresponding distance set on distance scale with focusing lever.

When measuring such short distances, always measure from subject to *camera back*, not to front of lens. Accurate measurement is extremely important on close-up work, because the depth of field is so small.

NOTE: All NIKKOR lenses are of the highest quality optical glass and the very best workmanship has been expended to produce a precision ground, highly polished lens. However, in the manufacturing and assembling of the lens occasionally a small speck or bubble will appear on the inner surfaces of the glass. These markings are sometimes mistaken as blemishes, but they are simply the characteristics of high grade lenses and will not adversely affect picture quality. The slightly blue coating of the lens is not always uniformly deposited over the glass surface. Again, this is not a defect, but a characteristic of fluoride lens coating.

7. CHANGING LENS—The flange on the TOWER 35 mm camera facilitates rapid interchange of lenses of various focal lengths, and insures absolute accuracy. A lens is simply screwed firmly into po-

sition by turning the entire mount in a clockwise direction. When inserting lens or removing it, be sure lens is gripped at the base of the lens mount adjacent to camera body (Illust. N) When removing lens, it is well to turn focusing lever in a counter-clockwise direction until it stops. This gives you a firm grip on the lens mount and permits ease in removal of lens. On



the other hand, when inserting lens, the rangefinder lever should be turned in a clockwise direction until it stops. This again will give you a firm grip at the base of the lens so that the lens can be turned into position. The helical focusing type mount will automatically couple with the rangefinder mechanism when lens is seated in proper position. Hold camera by left hand when changing lenses. Grip the lens as described above with the right hand, and loosen it in the flange by a slight quick jerk in a COUNTER-clockwise direction. Then simply unscrew lens. Do likewise when screwing lens into body of camera. Focusing lever must be in the infinity position before lens is screwed into the flange.

NOTE ESPECIALLY: When changing lenses, the opening into the camera body with the lens removed should not be exposed to a strong light. It is advisable to hold the camera in subdued light or against the body during time lens is out of the camera, if the camera is loaded.

8. VIEWFINDER—

The built-in viewfinder is an optically ground, direct-vision type of finder and shows the approximate field covered by the lens of the ordinary 50 mm standard focal length lens. Be sure to hold it level with the eye. If one were to look on a bias through the viewfinder window, it might not show the entire picture desired. Therefore, you must be sure that you bring your eye as close to the viewfinder as possible. (Lenses of longer or shorter focal lengths available for the TOWER 35 mm camera require the use of the Universal Viewfinder, which fits into the accessory shoe on top of camera (See page 31)

9. EXPLANATION OF APERTURE DIAPHRAGM

A camera lens is very similar to the human eye. When the eye is used in a dark room the pupil becomes enlarged to admit more light. When in a lighter area, the pupil becomes small. It varies according to the intensity of light reaching the eye. The camera lens has no such automatic muscular system, and, as a result, it must be mechanically adjusted according to the intensity of light on the object to be photographed. This opening or closing of the so-called "pupil" or "iris diaphragm" of the lens is adjusted by the use of a knurled ring (Illust. A—Aperture Adjustment Ring)

10. EXPLANATION OF APERTURE SCALE—

The figures between the frontal knurled ring and the second knurled ring pertain to the iris diaphragm within the lens barrel (Illust. A). They represent the relative aperture openings and regulate the amount of light to be admitted according to the intensity of the light on the subject to be photographed. In the case of the $f/2$ lens the figures are as follows— $f/2$ indicates that the lens is wide open, $f/2.8$, $f/4$, $f/5.6$, $f/8$, $f/11$ and $f/16$ represent the remaining openings. The $f/16$ is the smallest possible opening with the $f/2$ lens. You should always remember that the size of the aperture varies in indirect proportion to the size of the number. For example, $f/2$ is the smallest number, but represents the widest lens aperture on the 50 mm $f/2$ lens. Conversely $f/16$ reduces the lens aperture to the smallest possible opening.

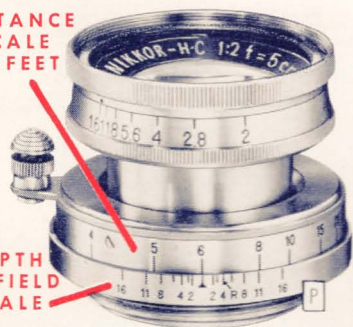
11. APERTURE DIAPHRAGM ADJUSTMENT—

The proper opening or setting of the lens aperture can be determined by use of an exposure meter. It is well to remember that the smaller the aperture, the longer the exposure. In other words, if the aperture is stopped down to the next highest figure, the time of exposure must be practically doubled. For example, if the exposure meter indicates an exposure time of $1/60$ of a second with $f/5.6$ aperture opening, the time must be doubled if the diaphragm is stopped down to $f/8$. This means that the shutter speed dial would then be set on $1/30$ of a second, which gives a longer time of exposure than $1/60$ of a second. If a moving object is to be photographed, it is quite obvious that you would select a short exposure time in order to stop the object in motion. This would mean opening the lens to admit more light during a shorter exposure period. If, on the other hand, you have a still object and there is no need for a fast shutter speed, you can then stop down your diaphragm slightly and increase the time of exposure. *As mentioned on page 6, shutter speeds other than those marked on speed dials should not be attempted.*

Note that TOWER cameras are engraved with the European system of markings for aperture and shutter speeds and, in many instances, exposure meters are not marked to be used with this system. However, the new TOWER meter is marked to be used with either the American or European system. According to the exposure meter being used, a setting of $f/2$ may be required on the iris diaphragm of the TOWER 35 mm camera. At the same time, the exposure time may be indicated as $1/480$ of a second. In this case you should set the shutter at $1/500$ of a second because there is no method by which we can set the shutter at $1/480$ of a second. In all instances, there is enough leeway in the film to accommodate these small discrepancies. If, on the other hand, your exposure meter indicates that you set the time at $1/25$ of a second, you can also set your TOWER 35 mm camera at $1/20$ of a second and be perfectly safe in securing the proper exposure. The differences are not great enough to make any appreciable difference in exposures.

**DISTANCE
SCALE
IN FEET**

**DEPTH
OF FIELD
SCALE**



12. DISTANCE SCALE ON FOCUSING RING—

When the 2 images are brought together by turning the lens focusing lever to the proper position, you can then read the distance scale in feet as indicated on focusing ring on flange (Illust. P)

The letter R indicates the position at which focusing should be set when using an infra red film. In other words, if you happen to bring the lens into focus and the distance scale indicates that you are 10 feet away, you should then move the focusing lever so as to set the 10 foot mark opposite R. The lens is then in focus when using infra red film. To repeat, the lens is focused in the usual manner and the helical mount is then turned until the index R points to that position on the distance scale which was indicated in the first place by the main index.

13. DEPTH OF FIELD SCALE—The range of sharpness of any lens is called the depth of field and depends on the relative aperture setting and the distance to the subject on which the lens is focused. The depth of field actually indicates maximum sharpness obtainable in a certain plane at a distance from the subject photographed. This plane covers a certain distance in front of the subject and a certain distance behind the subject. Within these areas objects are in focus. The smaller the aperture being used, the greater the depth of field. In other words, with a small aperture things become sharp far beyond the subject on which the lens is focused, whereas the larger the aperture the smaller the depth of field and things become diffused and out of focus beyond the subject.

In order to determine just what is in sharp focus within the depth of field range at a given lens aperture and distance, a special scale is

engraved on the base of the lens mount (Illust. P) Note that the lens aperture scale in the case of the 50 mm $f/2$ lens is engraved on both sides of the main index (small black triangle) In this case, it would be calibrated from $f/2$ to $f/16$. Through the use of this scale, one can then determine the distance in front and behind the subject on which lens is actually focused to obtain sufficiently sharp focus. If the aperture is set at $f/4$ at a distance of 6 feet, the scale indicates the depth of field which ranges from approximately $5\frac{1}{2}$ feet to about $6\frac{2}{3}$ feet. This indicates there is a very short depth of field when the lens is open at $f/4$ and you are relatively close to the subject on which you are focusing. On the other hand, when the lens is stopped down to $f/11$ and focused on a subject 15 feet away all objects within the range of approximately 9 feet from the camera to about 45 feet are within focus. If we were to focus the lens on a subject 15 feet away with the smallest aperture possible of $f/16$, then the objects within the range of approximately 8 feet to almost infinity would be in focus.

When taking landscapes or distance shots, merely set the camera on infinity and stop the lens down to as fine an aperture as possible, light permitting, and you will find that practically everything from 8 feet to infinity will be in focus. This latter setting is most universally used when as large a foreground as possible is to be included in a landscape.

Bear in mind, especially, that the maximum sharpness obtainable lies in a plane at the distance to which the focused lens has been set. Therefore, for a distance shot of a statue or house when the foreground can be neglected, the focusing scale for all practical purposes should always be set on infinity This simplifies the use of the TOWER 35 mm camera because, for all mountain scenes, you can lock your camera at infinity and shoot all day, adjusting only the aperture and shutter speed according to the light values as registered by your exposure meter. For the beginner, we advise that he worry very little about the depth of field scale. Let it suffice to say that the aim of the first "picture taking" should be merely satisfactory results.

NOTE: For landscapes and similar objects the camera should be stopped down to f/5.6 or f/8 with lens at infinity. Of course, this is also to be governed again by the light values as indicated on exposure meter. For candid snapshots, stop down to f/5.6 and focus to the most important part of the subject, and for portraits try to use as large an aperture as possible and focus around the eyes of the individual being photographed.

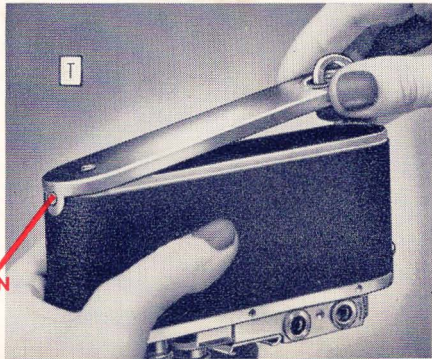
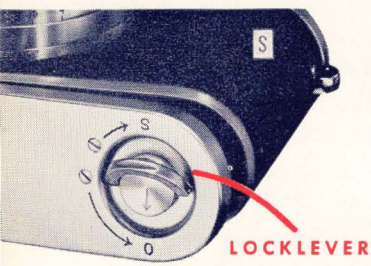
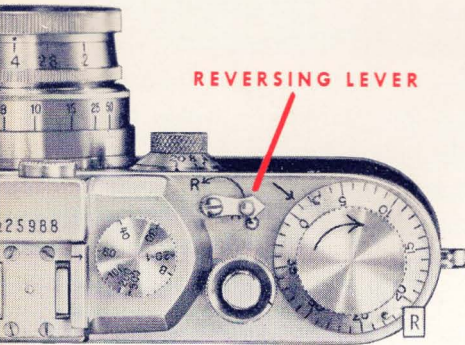
14. LOADING THE CAMERA—

Always load camera in subdued light. However, with magazine or cartridge type loading,* such as is used in the TOWER 35 mm camera, one can load it in normal room light. Follow these steps

1 Be sure to set the reversing lever on A (Advance) Illust. R. While camera is still empty, turn winding knob to stop and press shutter release.

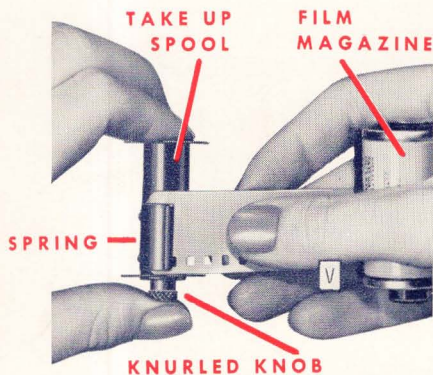
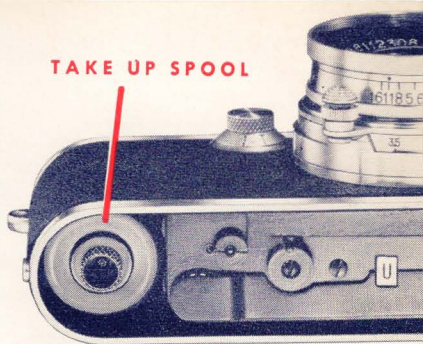
2. Place camera on pad, newspaper, or Sears catalog to give it cushioning. Never place your camera on a hard surface when working with it. Place camera UPSIDE DOWN, with lens facing away from you.

3. Open camera by picking up lock lever (Illust. S) on base plate and turning from S (shut) to O (open). Then lift the base plate off (Illust. T). In some instances, the bottom will be very tight and a stiff pull will be necessary to remove it.



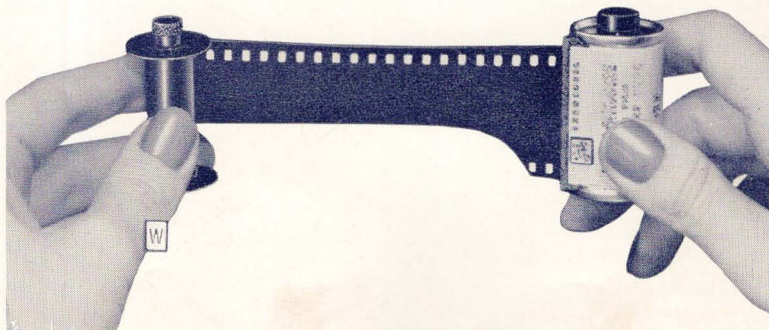
***NOTE:** The 35 mm magazines that are now on the market hold a strip of film which is adequate for the taking of 36 exposures or 20 exposures, 24x36mm in size.

4. Withdraw take-up spool (Illust. U) from open camera. Hold this spool in left hand and loaded film magazine in right hand. Be sure knurled knob on take-up spool, and the center tube on magazine are pointed downward (Illust. V) Insert end of the film under spring on take-up spool. Push it under spring as far as possible. Perforated edge of film should lie flush with flange of spool adjacent to knurled knob. Do not attempt to wind film around core of take-up spool.

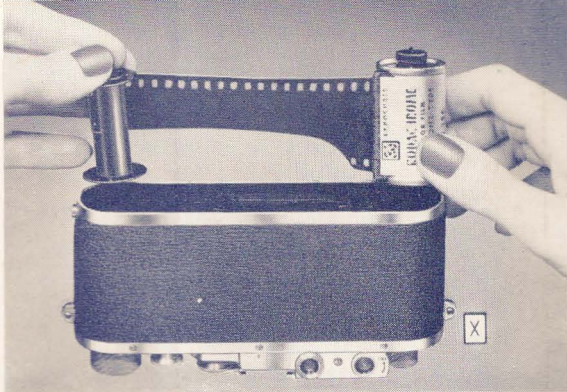


5. When film is secure under spring, draw it out of the magazine not more than 2 perforations behind the trimmed edge. Do not pull the film out of the cartridge any further than is indicated in Illust. W

6. Hold take-up spool and magazine as in Illust. X, and lower them into camera, making sure film settles into slot along back of camera. Do not use any force. If cartridge does not seat readily, turn rewind knob (Illust. A) slightly so prongs will fit into base of cartridge.



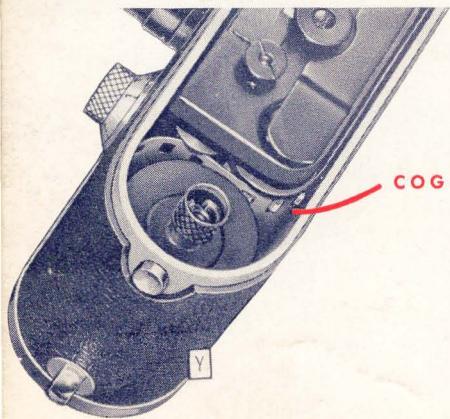
7 While the bottom plate is still off, it is always advisable to wind film by turning winding knob before replacing bottom. Make one full turn, making sure cogs engage correctly in perforations of film (Illust. Y) Press release button to release shutter. If the small cogs mesh in the perforations, you are ready to replace plate.



8. Replace bottom of camera by hooking it over pin on end of camera adjacent to take-up spool (Illust. T) and closing it down. Turn locking mechanism to S (shut)

9. Turn winding knob one full turn after bottom has been closed. Press release button. Again turn winding knob one full stop. Then set counter to "O" Press release button, your camera is now ready for use. When the winding knob is again turned to cock shutter and advance film, you will notice that the counter disc stops on No. 1, and you are ready to take your first picture.

As you turn winding knob, note especially that the rewind knob turns in a counter-clockwise direction, this will be in an opposite direction to arrow on rewind knob. If the winding knob fails to turn, or if you hear any crunching within camera, stop immediately and turn small reverse lever (Illust. A) from A to R, then rewind film, open base plate, remove film cartridge and reload camera.



CAUTION: Note that while you turn the rewind knob in the direction as indicated by the arrow, the collar around the release button turns. This indicates that the perforations of the film are engaged with the small cogs (Illust. Y). Continue to rewind until a slight pressure is felt. Turn past this and a slight jerk will be the effect as the film is pulled out from under the spring (Illust. V). Immediately after this jerk-like feeling has occurred, the collar will cease to turn. **DO NOT CONTINUE TO TURN THE REWIND KNOB IN THIS CASE, BECAUSE YOU MIGHT PULL THE FILM RIGHT ON INTO THE CARTRIDGE.** In order to re-load camera, the end of film must protrude enough to be able to get a hold on it to re-load it on to take-up spool.

15. UNLOADING THE CAMERA

Turn winding knob for your last exposure very cautiously so film will not be forced out of cartridge. If film happens to be forced out, camera must be taken into the darkroom, or you should take it to a local camera shop and have them remove the exposed film and replace it into its cartridge. When the roll is exposed and it is necessary to rewind it into cartridge, be sure speed dials are set on any other speed than T (Time) If camera is set on T the shutter may remain open and, as the film is rewound it will be re-exposed to light and spoiled by fogging.

1 Push reverse lever from A (Advance) to R (Reverse) Be sure lever is pushed all the way to R. This will automatically uncouple film advance mechanism and shutter gears.

2. Pull up rewind knob (Illust. Z) and turn in direction of arrow to rewind film into its cartridge. Continue to turn this



knob until a slight pressure is felt and then turn past this slight pressure until you feel end of film pull out from under spring of take-up spool. Note that while the rewind knob is being turned, the collar around the depressed release button continues to turn. When this ceases to turn, you know that only a small portion of film remains to be wound back into magazine. Give the knob 2 or 3 more turns so that the film is completely wound back into its magazine.

3. Open the camera as already explained (Illust. T)

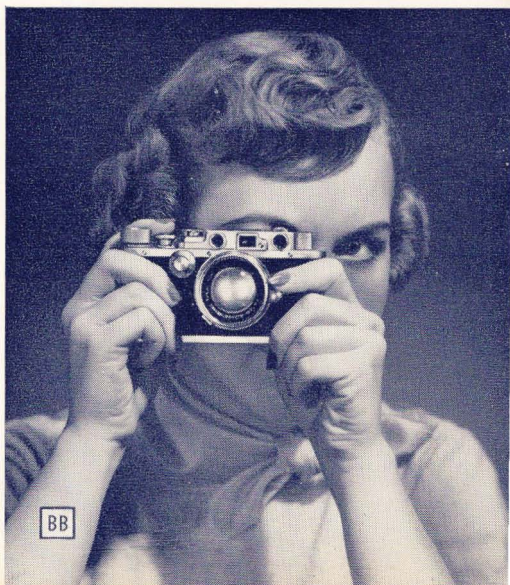


4. Pull out the film magazine (Illust. AA) by firmly grasping center tube in thumb and finger. Protect the loaded magazine from direct light by replacing in container supplied with film.

16. RELEASE BUTTON FOR SHUTTER—

It is advisable to hold camera steady with both hands as illustrated in Illust. BB. Rest camera firmly against cheek and hold it in both hands

so right index finger is ready to press release button. Left index finger should be on knob of lens focusing lever. Release the button by gently pressing the finger, not the entire hand or arm. The secret of clear, sharp, crisp pictures is to avoid movement or shifting of camera at time shutter is released. It is further suggested that a deep breath be taken and held while releasing button. This eliminates any possible movement caused by breathing.





17. HORIZONTAL AND VERTICAL PICTURES—

Two forms of pictures can be taken with the TOWER 35 mm camera. A horizontal exposure is taken when camera is held as in Illust. BB. The exposure is vertical when camera is held as in Illust. CC. The right hand should always help support the camera and, at the same time, the right index finger should be in a position to operate the release button. Either the middle or the index finger of the left hand should always operate the focusing lever.

Holding the TOWER 35 mm as described above permits a very rapid change from horizontal to vertical pictures, and vice versa. It also establishes a habit for picture taking because the same set of fingers are used to operate the release button and/or focusing lever in either horizontal or vertical position. Holding the camera in readiness as in Illust. DD while directing or surveying the subject makes it possible to quickly raise the camera to the proper taking position either horizontally or vertically, with the fingers always in the same position.



ACCESSORIES FOR YOUR



35 mm CAMERA

SUPPLEMENTARY LENSES

There are a number of accessories available for your new TOWER 35 mm Camera. One of the most unique features in the versatility of this camera is the fact that the lenses are interchangeable. The lenses are all standardized and many of the famous Leica lenses will fit the TOWER 35 mm camera, and the NIKKOR lenses will fit many of the Leica cameras.

The interchange of a lens is done easily. All you have to do is screw the lens approximately $2\frac{1}{2}$ turns in the flange on the camera. The lens should fit moderately tight to bring it into proper position. When changing lenses, the open camera body should be protected from strong sunlight.

All of the NIKKOR lenses for use with the TOWER 35 mm camera are equipped to couple with the rangefinder. The same principle is used for the telephoto or wide angle lenses as is used with the standard 50 mm lenses (Illust. 1) * Thus, the regular rangefinder is used for all NIKKOR lenses. All NIKKOR accessory lenses come in beautiful, russet-brown plush lined carrying cases (Illust. 2)

***NOTE:** On the telephoto lenses focusing is done by turning the knurled focusing ring. There is no focusing lever, as is the case with the standard 50 mm and wide angle lenses.

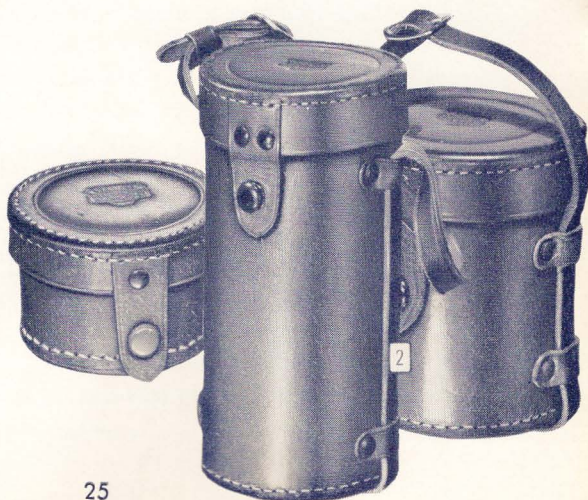


All NIKKOR lenses are coated on the inside only. It is believed the coating of inside surface only will help prevent scratches. It is evident that if the front element or outside of the lens were coated, this coating would be more subject to scratches than the hard, uncoated outside surface. The coating can be recognized in ordinary light by its reddish-to-blue cast. This coating is fused to

the surface of the lens while under a vacuum.

The coating reduces loss of light due to surface reflection. It has been found that an uncoated lens has a light loss of 30 to 35% because of surface reflection, whereas this light loss is reduced to less than 10% in the case of the NIKKOR coated lens. An uncoated lens has a tendency to scatter the light by internal reflections. This impairs the contrast of the image on the negative. Thus, the coated NIKKOR lenses will produce a more brilliant negative than the uncoated lenses of the same construction.

NIKKOR lenses have been rated by famous technicians as being as good as any ever produced by any lens maker in the world. They are rated so high that leading magazine photographers on the Korean front discarded their other lenses and are using NIKKOR lenses.



CARE OF NIKKOR LENSES

These lenses, like all high quality optical glass, are susceptible to influences of moisture and, of course, should not be touched with the fingers. Salt from perspiration on fingers not only smears, but has a tendency to corrode the surface. When not in use, the lens should be covered with its lens cap. In the case of demounted lenses, the lens caps for both front and/or rear must be replaced on lens to avoid collection of dirt and dust. Always keep lens in its carrying case when lens is detached from camera. Dirt, dust or finger marks must be removed with the greatest care. Remove any dust by wiping lightly with lens tissue.

FOCAL LENGTH OF A LENS

It is well to remember that the depth of field of a well-corrected, high speed 50 mm lens at full aperture is comparatively small. As a result, stopping down to increase the depth of field is often necessary. The higher power of these ultra speed lenses should be considered as a reserve to be used only for adverse lighting conditions. One should avoid the use of full aperture unless the depth of field is taken into consideration. If you want to photograph a rose and cause the stem, leaves or back petals to become soft or slightly out of focus, the lens at full aperture is ideal. The same is true in portrait photography. The features of the person might be needle sharp when the high speed lens, for instance the 50 mm $f/1.4$, is wide open. However, at this opening, the ears and hair might well be out of focus. This is often desirable in portrait photography.

The 50 mm lens is called the standard focal length for the TOWER 35 mm camera. A long focal length lens is popularly termed a tele-photo lens. For instance, the 135 mm. lens makes the image appear closer and larger. At the same time, it cuts down on the size of the field covered by the normal 50 mm lens. (See photos at right.)

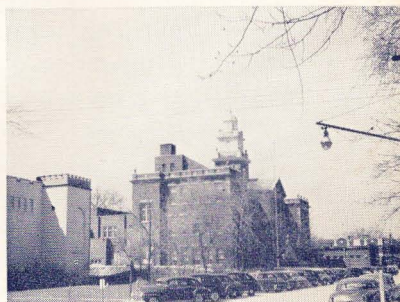
These illustrations show what the camera taking lens actually sees. With the wide-angle 35 mm lens the angle is much greater than with

the normal 50 mm lens. On the other hand, the angle is much smaller in the case of the 135 mm lens than it is in the case of the 50 mm lens. The 135 mm telephoto lens covers a smaller field, but makes the object larger. (For example the clock tower fills the frame of the picture more completely than it does when the same photo is made with the 50 mm lens.) For rapid calculation, divide the focal length of the standard 50 mm lens into the focal length of the lens being compared. All distances from camera to subject remaining equal, the result will give a rough estimate of the power of the lens as compared with the 50 mm lens. For example, as in the case of the 135 mm lens, divide the 50 into 135 and you get 2.7 This means that the image will be 2.7 times larger when taken with the 135 mm lens. For all practical purposes, we say that the 135 mm lens gives an image 3 times that of the 50 mm lens. The same is true for the 85 mm lens, although it produces an image 1.7 times larger (85 divided by 50) For all general purposes, it is said to produce an image 2 times larger than the 50 mm. If the telephoto lens were 100 mm the image would then be exactly 2 times larger.

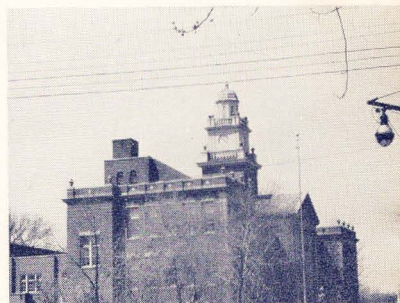
Photos by George Potts



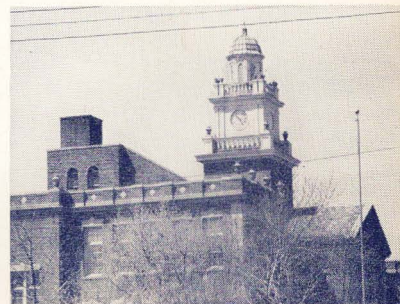
WIDE ANGLE 35 mm LENS



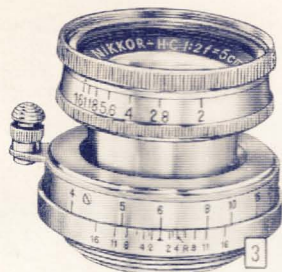
NORMAL 50 mm LENS



TELEPHOTO 85 mm LENS



TELEPHOTO 135 mm LENS



NIKKOR 50 mm f/2 LENS

The NIKKOR f/2 coated standard six-element 50 mm lens can be used for most general purposes. This includes general outdoor pictures, inside shots taken with photofloods or flash-guns, press work and color pictures indoors or out. Its exceptional quality is the evenness of light distribution over the film frame. The production of brilliant, crisp negatives with needle-sharp images is due to the non-scattering of light, and its highly, precision-ground lens elements. The lens produces the proper tones wherever contrast and brilliance are needed. This lens comes in two types, the collapsible (Illust. 3), and the more recent non-collapsible (Illust. 4) The non-collapsible lens focuses down to 18 inches. (See special note, page 12 on focusing at distances less than 3½ feet.)



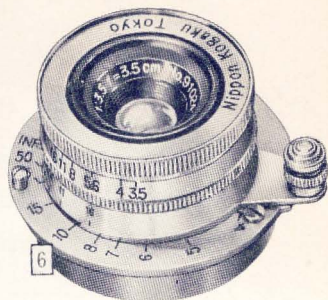
NIKKOR 50 mm f/1.4 HIGH SPEED LENS

The new NIKKOR f/1.4 coated 50 mm lens (Illust. 5) is the latest lens added to the line. It will also focus down to 18 inches. This lens has all the qualities of the NIKKOR f/2 described above and, in addition, it is faster and has 7 elements. It fills the needs of amateur or professional photographers who want speed. It can be used for fast shutter speed in artificial light, such as night club pictures, press, theater or any shot where lighting conditions are not favorable. Its aperture is equipped with click stops that may be set through feeling when photographing under adverse lighting condition. At full aperture the lens is extremely accurate and, of course, the sharpness and depth of focus increase as it is stopped down. We believe this lens has as great a speed and as fine resolving power as any lens now offered to the photographer. The lens is also excellent for general, all-around photographic purposes.



NIKKOR 35 mm f/3.5 WIDE ANGLE LENS

This lens is a highly precision-ground lens with a much shorter focal length than the standard 50 mm lens. It takes in a much wider field (as indicated in Illust. on page 27) The angle of field is 30% greater. Photographers use this lens where the distance between subject and camera is limited and insufficient to show the entire desired subject on the negative. It is excellent for photographing tall buildings or large groups. With such a short focal length lens the depth of field covers a comparatively wide field at fairly wide apertures. For example, with an opening of $f/6.3$ focused at 23 feet, sharp focus may be obtained on objects from about 10 feet to infinity. This is a universal setting and quick shots can be taken easily when shooting subjects where stopping to focus would be inconvenient. This setting is used for any scene where time does not permit refocusing and resetting of the aperture before each shot. It is especially important to use the universal viewfinder with this lens (Illust. 9)



NIKKOR 85 mm f/2 TELEPHOTO LENS

This all-purpose, long focal length lens is especially suited for picture taking in a theater. Its longer focal length permits distance shots where a subject would be very small if taken with the standard 50 mm lens. It produces a fairly large image at a considerable distance. Its high speed of $f/2$ permits short exposures under poor lighting conditions and where the use of flash bulbs is taboo. This lens is excellent as a portrait lens, when opened to its full aperture it produces a pleasing softness. Even distribution of light over the entire negative, and fine definition make this lens outstanding. The universal viewfinder should be used with this lens.



NIKKOR 135 mm f/3.5 TELEPHOTO LENS

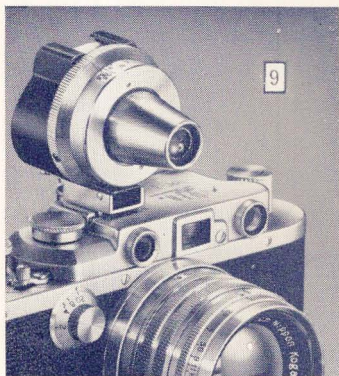
Because of its special optical qualifications, this telephoto lens is especially useful to the more serious photographer. Compared to the standard 50 mm lens, its magnification is 2.7 times larger. It has an angle view of about 19 degrees and can be most profitably used for sport scenes, boat races, etc. taken at great distances. It is also excellent for mountain or animal photography and nature shots in general. This lens is especially suited to detailed architectural subjects and very large portrait heads. Its definition is especially good when stopped down. The lens has high color correction and is recommended for distance shots in color. The earlier NIKKOR lenses had a speed of $f/4$ when set at full aperture. The $f/3.5$ is a great improvement for this long focal length lens.



Here again, in order to insure accurate framing, it is important to use the Universal Viewfinder when this lens is brought into operation.

A tripod must always be used whenever you use the 135 mm lens. This lens is too heavy to be supported by the camera and, therefore, lens must be placed on the tripod and the camera attached to the lens.

UNIVERSAL VIEWFINDER—WHEN TO USE



When using the TOWER 35 mm camera with any lenses other than the standard 50 mm lens, the field covered is either greater (as in the case of the wide angle lens) or smaller (as in the case of the 85 mm or 135 mm telephoto lens). To determine the correct field of view for those wide angle or telephoto lenses, a special viewfinder must be employed. The Universal Viewfinder is especially designed for use with lenses from 35 mm to 135 mm focal length. It can be used with

all focal length lenses produced for the TOWER 35 mm camera, and may also be used on the Leica with any lenses equivalent to the following NIKKOR lenses

35 mm wide angle lens

85 mm f/2 telephoto lens

**50 mm standard f/2 or
f/1.4 lenses**

135 mm f/3.5 telephoto lens

Universal Viewfinder is calibrated to be used with the 90 mm and 105 mm lenses, as well as the above listed NIKKOR lenses. The Universal Viewfinder attaches to the top of the camera accessory shoe. When this shoe on top of camera is used for another accessory, such as the flashgun, the viewfinder may be attached to camera by means of a clip which fastens to bottom of camera. (Get this clip at any Sears camera department.) The Universal Viewfinder comes in a brown leather case (Illust. 10)

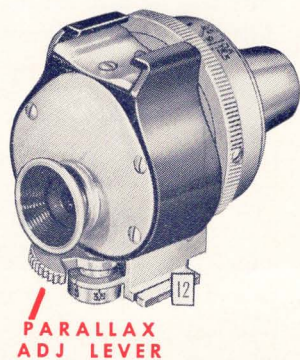




HOW TO USE

By turning the knurled adjustment ring, the rectangular aperture or field is enlarged or reduced in size to show the image covered with any of the above lenses. The adjustment ring (Illust. 11) bears an indicator mark, commonly called index line, which must be set opposite the proper focal length for lens in use. Adjacent to the longer or main index line is a shorter index line. The long line is used for distances 30 feet to infinity. The shorter line is used for close-up pictures from 3.5 to 6 feet. For distances between 6 and 30 feet, the knurled adjustment ring is set between the two lines at the desired focal length of the lens being employed.

The Universal Viewfinder is equipped with a knurled adjusting lever (Illust. 12) which is calibrated from 3.5 feet to infinity. This also has an index line just above the calibrated ring. The distance from the subject should be set opposite the index line. The employment of this so-called parallax adjustment insures that an object sighted through the viewfinder and appearing in the center of the desired picture will actually be photographed in the center of the picture. This accessory prevents the cutting off of heads, or leaving out of pertinent parts of a picture. It should be pointed out that there is little chance of cropping off portions of desired images when the distance from the object to camera is over 12 feet. However, the above compensation is necessary to avoid such cropping when taking pictures closer than 12 feet. The viewfinder works the same either on top or bottom of camera.



FEATURE OF VIEWFINDER

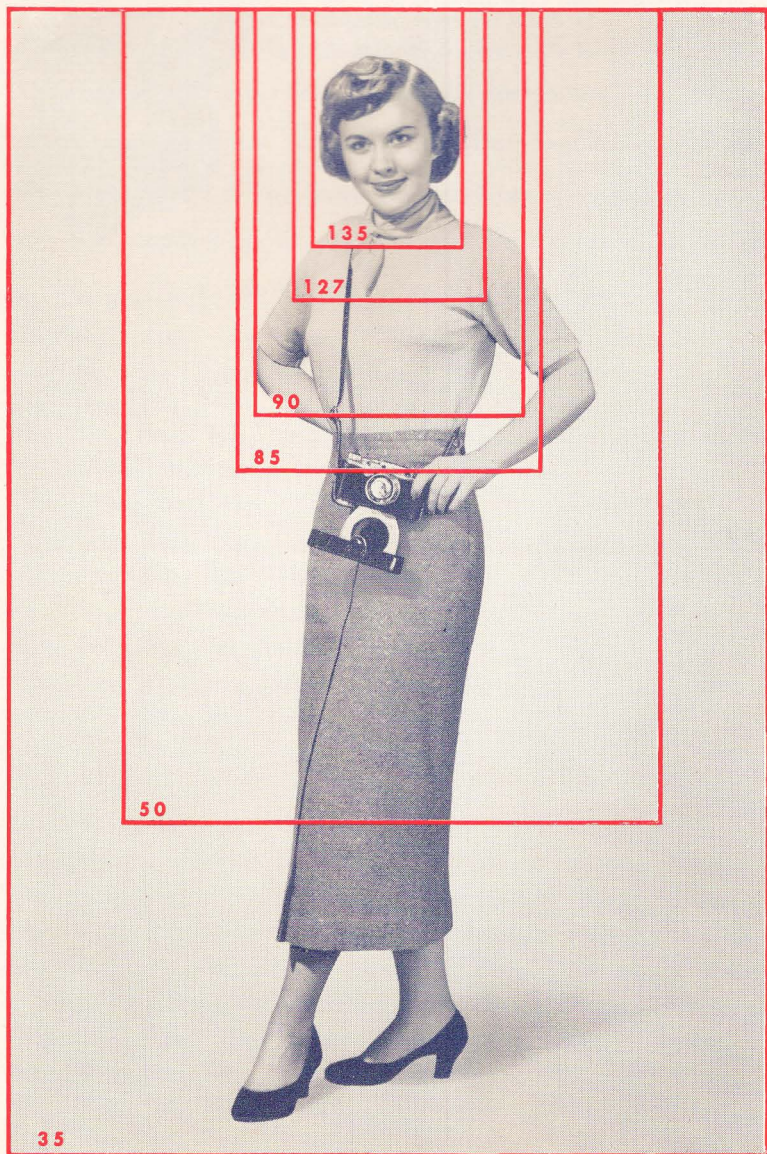
The new Universal Viewfinder is built on the principle of a small periscope. The vision does not go directly through the viewfinder, but the eyepiece is located beneath the direct line of vision. Unlike the earlier viewfinders, the new viewfinder shows the image rightside up and exactly as you would see it with the naked eye, except the image is in miniature. Viewing the image exactly as it is, obviously is a great advantage especially when following moving objects.

The Universal Viewfinder is a must when using any of the NIKKOR lenses other than the standard 50 mm $f/2$ or $f/1.4$ lenses.

PARALLAX

The term parallax refers to the adjustment that is made between the scene viewed through the viewfinder and that seen in the camera lens. Because the viewfinder may be higher or lower than the camera lens, compensation must be made for this difference. In focusing at a distance of 12 feet or less, the viewfinder can be tipped up or down to correlate with the camera lens, so the actual picture will not be chopped off at top or bottom.

COMPARATIVE FIELD COVERED BY
VARIOUS FOCAL LENGTH LENSES
As Seen Through The Universal Viewfinder





CAMERA CARRYING CASE

Although the carrying case for the TOWER 35 mm Camera is actually an integral part of the camera, it is considered an accessory. This case is the ever-ready type—that is, the camera can be used, and all adjustments made, without removing camera from case (Illust. 13)

A snap button on the front permits the frontal piece to drop down. The camera is held in the carrying case by a tripod screw. The neck strap can be adjusted to any desired length. ALWAYS keep the neck strap around your neck to eliminate the possibility of dropping your camera.

The case is made of fine russet-brown cowhide, lined at top and bottom with plush or velvet.



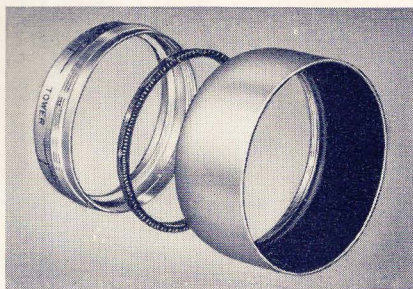
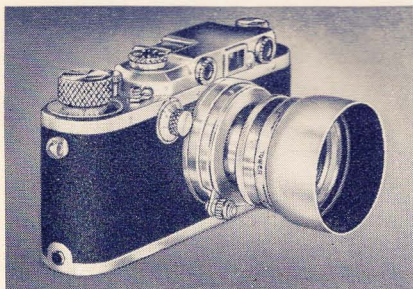
CLOSED



OPEN

TOWER LENS SHADE AND FILTER HOLDER

TOWER has produced a new adapter ring with retaining ring and lens shade. This filter holder will accommodate any regular Series VI filters (TOWER, EASTMAN, etc.) This unit permits use of the filter alone, and/or with the lens shade, which screws easily onto the adapter ring. (See Illust. below)



Your fine new TOWER 35 mm Camera is extremely versatile. It may be used with a wide variety of special accessories to enable you to take any type of picture you desire. Consult Sears general catalogs or visit the camera department of any large Sears store for additional accessories not mentioned in this booklet.

Each part of your TOWER Camera has been made with microscopic precision. Special instruments have been made to check and repair working parts of the camera. Sears has established a special repair service with adequate parts and "know-how" for the TOWER 35 mm camera. If your camera needs repair, return it to the store from which you purchased it. If this repair is within the terms of the guarantee, return certificate fully filled out with camera, and repair will be free of charge.

Your TOWER 35 mm Camera is Guaranteed!

1 - Year Guarantee . TOWER . 35 mm CAMERA

WE GUARANTEE the TOWER 35 mm Camera to be free from defects in material and workmanship for a period of one year from date of sale.

Should this TOWER 35 mm Camera prove defective during the guarantee period, return it with this certificate fully filled out, to the store from which it was purchased and we will repair it free of charge.

This guarantee does not cover damage to camera, lens, equipment, or any part thereof, if dropped or caused by wear, accident or misuse.

CAMERA MODEL NO. _____
CAMERA SERIAL NO. _____
LENS SERIAL NO. _____

This guarantee is void if repairs are attempted by anyone other than our authorized Repair Department.

We do not authorize any person or representative to make any other guarantee or to assume for us any liability in connection with the sale of TOWER 35 mm Camera other than those contained herein. Any agreements outside of or contradictory to the foregoing shall be void and of no effect.

This guarantee covers only TOWER 35 mm Cameras sold in the United States and its immediate possessions.

DATE _____
STORE _____

SEARS, ROEBUCK AND CO.

