













































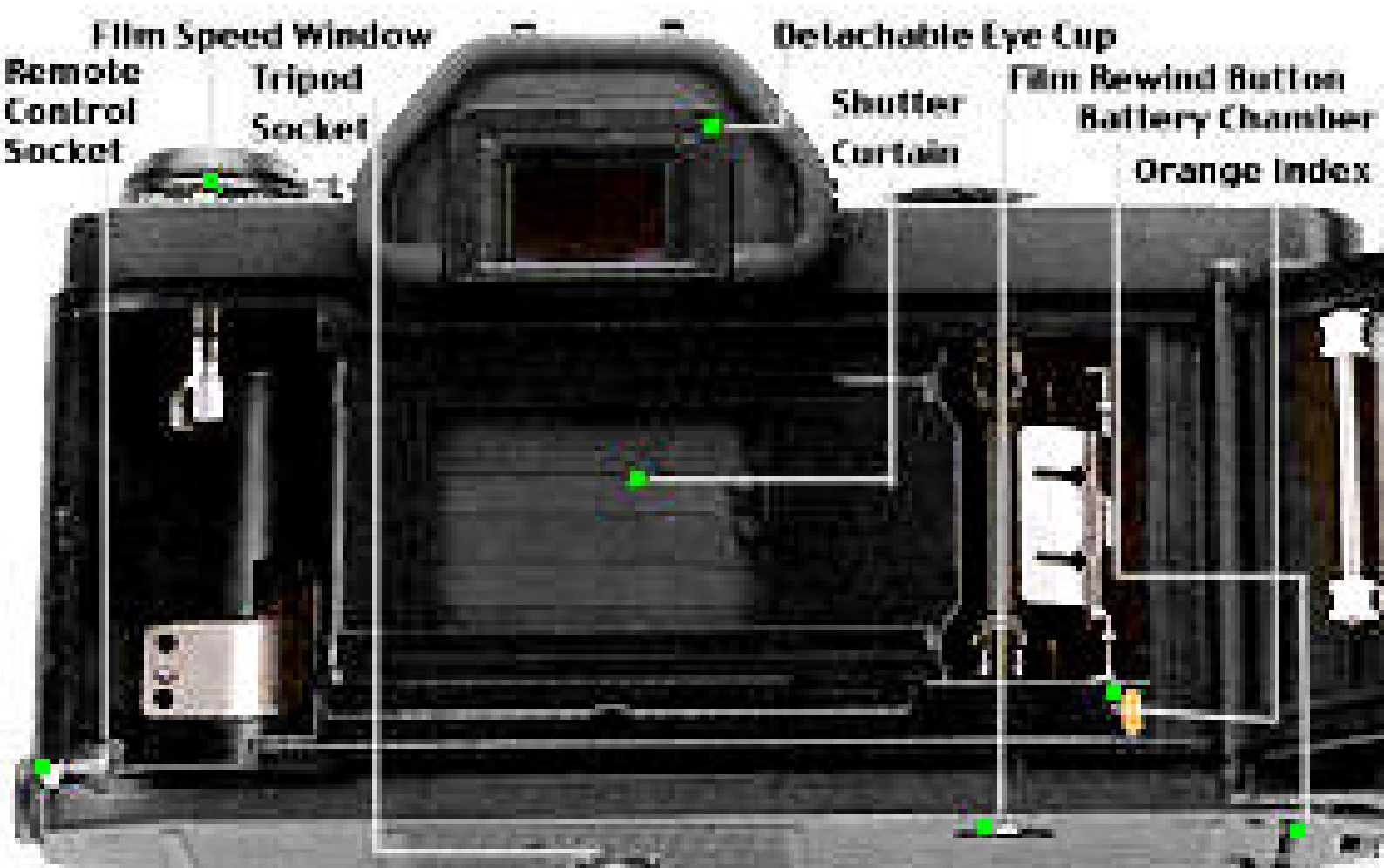














	MAG	4	5	6	8	12	17	22
Size	3.5x5	4x6	5x7	8x10	11x14	16x20	20x24	
1.4	93.7	90.4	86.7	78.3	60.6	41.9	28.3	
2.0	91.8	87.7	83.1	73.0	53.6	34.5	21.9	
2.8	90.1	85.3	80.0	68.7	47.9	29.3	17.6	
4.0	94.6	91.7	88.4	80.9	64.6	46.2	32.3	
5.6	97.6	96.2	94.7	90.8	81.2	67.7	54.7	
8.0	98.3	97.7	96.8	94.4	88.1	78.3	67.8	
11.0	98.8	98.2	97.4	95.5	90.4	82.2	73.0	
16.0	98.9	98.3	97.6	95.9	91.1	83.4	74.6	

Original 50mm f/1.4 Nikkor delivers creditable performance, about equal to 50mm f/1.5 Zeiss Sonnar of same era. Picture quality is OK at wide apertures, improves markedly by f/4–5.6.

	MAG	4	5	6	8	12	17	22
Size	3.5x5	4x6	5x7	8x10	11x14	16x20	20x24	
2.0	97.3	95.9	94.2	90.1	79.8	65.7	52.4	
2.8	98.4	97.6	96.5	94.0	87.2	76.9	66.0	
4.0	98.9	98.3	97.5	95.7	90.7	82.7	73.7	
5.6	99.0	98.4	97.8	96.1	91.5	84.2	75.7	
8.0	99.0	98.4	97.7	96.0	91.4	84.0	75.5	
11.0	98.9	98.3	97.6	95.8	91.0	83.2	74.4	
16.0	98.7	98.0	97.1	94.9	89.2	80.2	70.3	

Original 85mm f/2 Nikkor delivers remarkably good performance for a fast medium tele of the early '50s, showing commendably high picture quality up to 11 × 14 level, even at wide apertures.

KEY:

A+	A	B+	B	C+	C	D	F
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NIPPON KOGAKU K.K.

SHINAGAWA, TOKYO

INSTRUCTIONS
FOR USING
Nikon
CAMERA



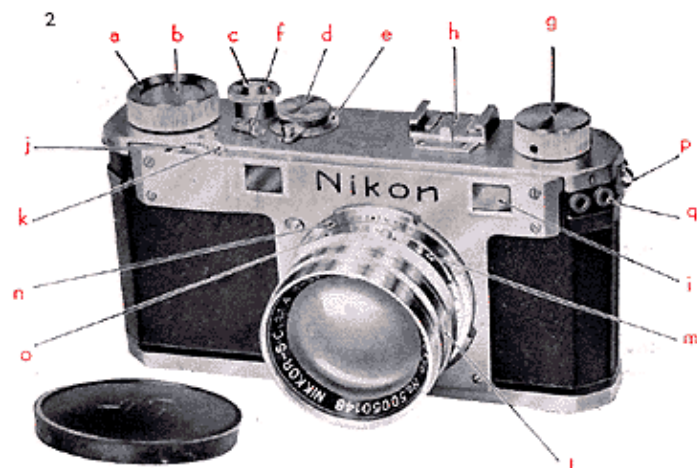


Fig 1

FRONT VIEW

- | | |
|---|---|
| a. Winding knob. Winds shutter and advances film simultaneously. | h. Clip for Universal View Finder and other attachments. |
| b. Counting dial. Automatically records number of exposures made. | i. Range and view finder. |
| c. Shutter release button and screw for attaching wire release. | j. Lens focusing wheel. |
| d. Fast shutter-speed dial. | k. Automatic locking device for infinity setting. |
| e. Slow shutter-speed dial. | l. Diaphragm ring. |
| f. Reversing lever. Arrow "A" advances film, arrow "R" reverses film. | m. Barrel lock. Press to detach lens barrel. |
| g. Rewinding knob. | n. Depth of focus scale. |
| | o. Range scale. |
| | p. Loops for strap. |
| | q. Synchronizer socket "F" for flash gun plug (fast shutter). |

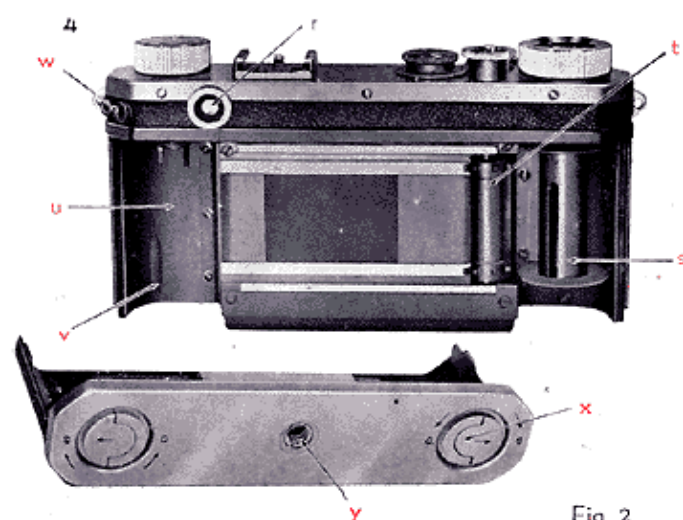


Fig 2

REAR VIEW

- r. Eye-piece for range and view finder.
- s. Film take-up spool.
- t. Film advancing sprocket.
- u. Space for film magazine or film cartridge.
- v. Guide notch for positioning film magazine.
- w. Synchronizer socket "S" for flash gun plug (slow shutter).
- x. Semi-circular metal strip.
- y. Tripod socket.

TO LOAD CAMERA



Fig 3

The back and bottom of the camera are made in one piece. To remove, turn the semi-circular metal strips on the bottom of the camera until the engraved arrows point to "O". The camera back is now locked and may be removed.

Hold the camera with the bottom facing you and place the loaded film magazine in the left end chamber so that **projection on the outer shell of the magazine fits in the guide notch (V. Fig. 2)**. A cartridge may be inserted similarly.

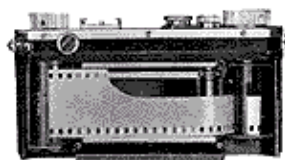


Fig. 5

Turn the winding knob slightly and make sure that the film firmly in caught by the spool.

Then let the sprocket catch the perforation of the film.

Tighten the film in the magazine by rotating the rewinding knob (g, Fig 1) in the direction of the arrow.

Insert the end of the film into the slit on the spool and let the little projection at the entrance of the slit catch the perforation on the film.

Set reversing lever on "A" (f, Fig 5) so that film may be advanced.

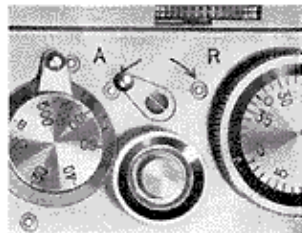


Fig 5

TO TAKE PICTURES

1) TO SET SHUTTER SPEED

There are two shutter speed dials fast and slow, arranged one on top of the other. The fast shutter dial is set for speeds of $1/30$ to $1/500$ second. Similarly, the slow shutter dial is adjusted to obtain shutter speeds from 1 second to $1/20$ second.

Shutter setting should always be made **after** winding the film.

This is important: if the shutter speed is set before winding the film, the shutter speed will be in error.

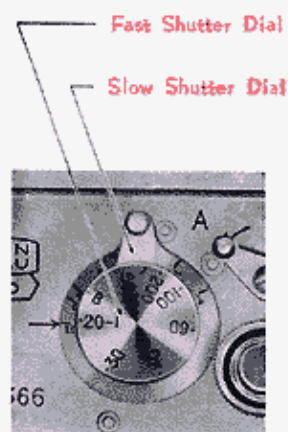


Fig 9

A. FAST SHUTTER DIAL

Lift the dial lightly and turn. Check to see that the dial settles into place properly. (Fig 10)

B. SLOW SHUTTER DIAL

In order to use slow shutter speeds, the fast shutter speed dial must be set at the red marking "20-1".

Move the slow shutter dial by means of the small lever. (Fig 11)



Fig 10

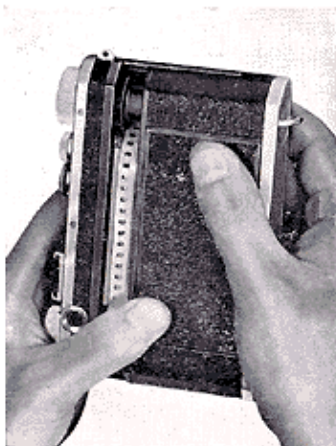


Fig 11

When film has been loaded replace the camera's back and secure by turning the semi-circular metal strips until the arrows point to "S".

In order to determine that the film is being wound properly, turn the winding knob (a, Fig 1) slightly to see if the rewinding knob rotates in the direction **opposite** to that indicated by the arrow.

Fig 6



Turn the winding knob until it stops. (Fig 7) This means that the knob has made one complete turn, advancing one frame and that the shutter has been wound. Before taking pictures on a new roll of film, turn the winding knob and press the release button. Repeat the operation a **second time** in order to pass that part of the film which has probably been affected by light during loading.

Set the counting dial (Fig 8) to **zero**, using the two small lugs on the face of the counting dial. The counting dial indicates the number of pictures **taken**, not the number of unexposed frames.



Fig 7

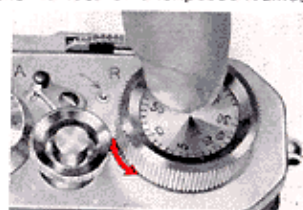


Fig 8

Therefore, in ascertaining the coincidence, the vertical lines of the image are helpful, which, when focussed, become solid and the blur of the double image disappears.

Out-of-Focus

In Correct Focus

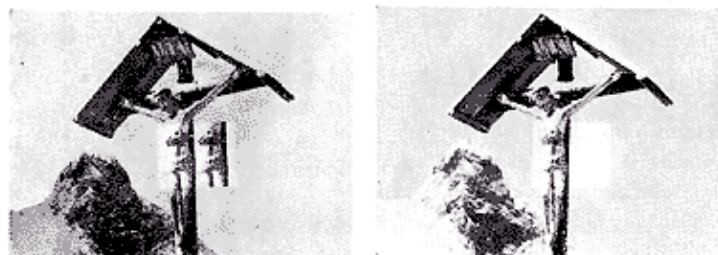


Fig 14

A red spot below the camera number inscribed on the top of the camera indicates the position the film passes, which will be helpful in photographing close-up subjects.



Fig 15

a) TO MAKE THE EXPOSURE

The view obtained with the eye as close as possible to the range and view finder eye-piece is identical with the field of view of the lens when a 50mm lens is being used. The Universal View Finder must be used to obtain the exact field of view with the 85mm, 135mm, and 35mm lenses. The range finder, coupled through the lens, is accurate with any of the lenses.

Compose the picture in the view finder and press the shutter release button **slowly**. Do not press hard and do not press fast to avoid moving the camera while the shutter is closing. Use a tripod or rest for any shutter speed slower than $1/60$ second.



Fig 16

DEPTH OF FOCUS

Depth of focus is read directly from the depth of focus scale. By definition, depth of focus is that part of the field of view of the lens, measured from the camera, which is in focus. Near and far objects are generally out of focus with the middle distance being in sharp focus.

Depth of focus depends equally upon the lens opening ($f:1.4$, $f:5.6$, $f:8$, etc) and upon the distance from the camera to the object upon which the lens is focused.

To determine which objects in the lens' field of view will be in focus in the finished picture, focus the camera upon the object to be photographed. Separately, by means of a light meter or by reference to the film data usually furnished by the film manufacturer, determine the lens opening required for the light conditions prevailing. Set the lens opening as required.

The depth of focus can now be read from the depth of focus scale as two points, one representing the distance to the nearest

object which will be in focus, the second representing the distance to the farthest object which will be in focus measured from the camera.

EXAMPLE

1. Focus the lens on an object 20 feet from the camera
2. Set the lens opening to $f:8$.
3. Notice that the dot on the depth of focus scale is opposite 20 on the distance scale.
4. Read the depth of focus at the two " $f:8$ " markings on the depth of focus scale. The nearest object in focus for this setting will be 12 feet



Fig 17

from the camera, the farthest object which will be in focus will be 50 feet from the camera.

EVERYTHING ELSE WILL BE OUT OF FOCUS IN SOME DEGREE

NOTE: Wide angle lenses, the 35mm and 50mm lenses, have greater depth of focus than the telephoto lenses. Since the depth of focus, for a given lens, depends inversely upon the size of the lens opening, always use the smallest lens opening possible. Note also, that the larger the " f " number, the smaller the lens opening. The 50mm lens is wide open at " $f:1.4$ " or at " $f:2$ " and nearly closed at " $f:16$ ".

This subject is of extreme importance if satisfactory pictures are to be taken. It is suggested that depth of focus be thoroughly understood before any pictures are taken.

Range Scale Lens Opening	3 ft.	6 ft.	12 ft.	30 ft.	50 ft.
1.4	2' 11 1/2" ~ 3' 0 1/2"	5' 9 1/2" ~ 6' 2 1/2"	11' 3 1/2" ~ 12' 9 1/2"	25' 11 1/2" ~ 30' 6 1/2"	39' 4 1/2" ~ 229' 7 1/2"
2	2' 11 1/8" ~ 3' 0 1/4"	5' 9 1/4" ~ 6' 2 1/4"	11' 3 1/4" ~ 12' 9 1/4"	25' 11 1/4" ~ 30' 6 1/4"	39' 4 1/4" ~ 229' 7 1/4"
4	2' 10 1/2" ~ 2' 11 1/2"	5' 8 1/2" ~ 6' 1 1/2"	10' 2 1/2" ~ 11' 6 1/2"	20' 8 1/2" ~ 24' 2 1/2"	28' 4 1/2" ~ ∞
5.6	2' 10 1/4" ~ 2' 11 1/4"	5' 8 1/4" ~ 6' 1 1/4"	10' 2 1/4" ~ 11' 6 1/4"	20' 8 1/4" ~ 24' 2 1/4"	28' 4 1/4" ~ ∞
8	2' 9 1/2" ~ 2' 10 1/2"	5' 7 1/2" ~ 6' 0 1/2"	9' 10 1/2" ~ 10' 11 1/2"	18' 5 1/2" ~ 21' 5 1/2"	24' 4 1/2" ~ ∞
11	2' 9 1/4" ~ 2' 10 1/4"	5' 7 1/4" ~ 6' 0 1/4"	9' 10 1/4" ~ 10' 11 1/4"	18' 5 1/4" ~ 21' 5 1/4"	24' 4 1/4" ~ ∞
16	2' 7 1/2" ~ 2' 8 1/2"	4' 6 1/2" ~ 5' 0 1/2"	7' 4 1/2" ~ 8' 2 1/2"	10' 5 1/2" ~ ∞	12' 6 1/2" ~ ∞

REMOVING THE EXPOSED FILM

A roll of film which has been only partially exposed can be rewound and exposed again at a later date. To rewind a partially or fully exposed roll, turn the reversing lever (f, Fig 1) to "R" and turn the rewinding knob in the direction in which the engraved arrow points. When the film is completely rewound, resistance is felt. Turn the rewinding knob until this resistance is no longer felt. The film will now be completely rewound.

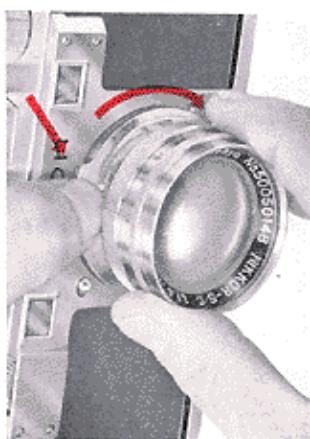


Fig 18

TO CHANGE LENSES

If it is desired to remove the lens for dusting or to change lenses, set the distance scale **at infinity**, depress the barrel lock (m, Fig. 1) and hold down with the left thumb. Turn the barrel **clockwise** with the right hand until the red index mark on the barrel meets the red mark on the camera body. The lens barrel may now be removed gently from the camera body.

Fig 19



In order to fix telephoto or wide-angle lenses to the camera body, set the range scales both of camera and lenses **at infinity**. Push the lens into the opening of the camera body as far as it goes, care being taken that the red mark on the lens barrel is above that of the camera body.

Then press and tilt the fluted piece (Fig. 20) toward you, and turn the lens to the **left** (anti-clock-wise) until it stops with a click.

See that in this position the red mark on the lens barrel rests on the highest line of the barrel and that the fluted piece returns to the original position properly.

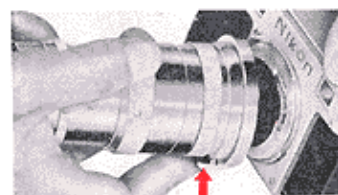


Fig 20

Important!

1. The flash bulb should not be attached, until the cord plugs are inserted into the sockets on the camera.
2. Marketed flash guns are sometimes not insulated between the gun and the holder. It is important that the insulation be inserted, if it is absent.
3. For a shutter speed of $1/500$ of a second or when more than two flash bulbs are consumed on the circuit, increase the battery voltage to not less than 4.5 volts.
4. For shutter speeds of $1/20$ —1 sec, a strobo flash may alternatively be used with the smaller cord plugs in sockets "S" on the camera. It is essential to see that the synchro-time adjuster be correctly set prior to use of the strobo apparatus.

UNIVERSAL VIEW FINDER

To use the Universal View Finder, slip it in the clip (h, Fig 1) and place the magnifier on the chain over the eye-piece (r, Fig 2). When focus has been obtained, set the parallax adjustment scale in conformity with the distance range on the barrel of the lens. The exact size of the field of view is obtained with 35mm, 50mm, 85mm and 135mm, by setting the indicator to the scale shown on the body of the finder. Use the shorter indicator for distances of 5 feet or less and the longer indicator for distances above 5 feet.



Fig 23

TO USE FLASH SYNCHRONIZER

The Nikon Camera has a built-in duplex flash synchronizer, which lights automatically the flash bulb on any marketed flash gun, when shutter is released.

When **fast** shutter ($1/20$ – $1/500$ sec) is used, push the smaller plugs on the connecting cord into sockets marked "**F**" (q, Fig. 1) on the camera. When **slow** shutter ($1-1/8$ sec) is used, push the smaller plugs on the connecting cord into sockets marked "**S**" (w, Fig. 2) on the camera. For fast

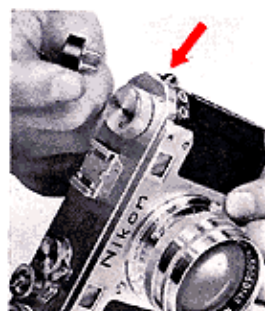


Fig 21

shutter speed, a flash bulb for focal plane shutter (Say: GE-No. 6, Syl-No. 2A etc.) and for slow shutter speed, an open flash bulb (Say: GE-No. 5, 11, Syl-Press 25, 40, etc) must be used.

Shutter speed	Fast $1/20$ – $1/500$	Slow $1-1/8$
Sockets on the camera to be used	"F"	"S"
Flash bulb to be used	GE-No. 6, No. 31 Syl-FP 20, No. 2A etc.	GE-SM, No. 5, 11, Syl-SF, Press 25, 40 etc.



Fig 22

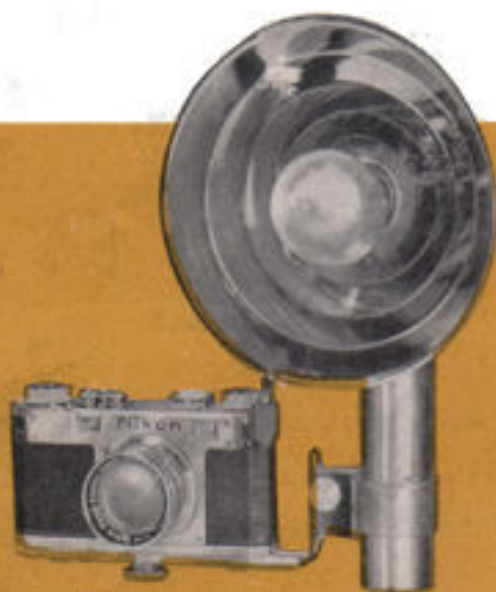


Instructions for using
Nikon
FLASH UNIT

Model B. C. B.

NIPPON KOGAKU K. K.

SHINAGAWA, TOKYO

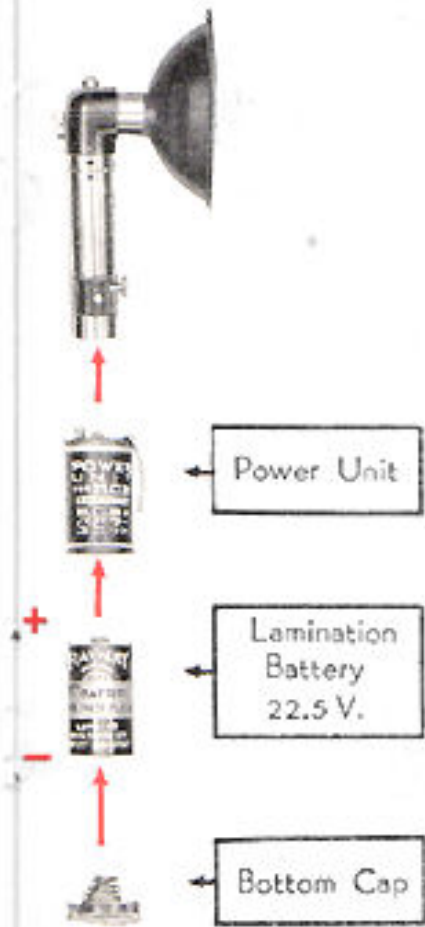


LAMINATION BATTERY

For multiple flash, lamination battery is recommended to ensure firing.

- 1. Lamination battery of 22.5V can be used for Nikon Flash Unit, Model B. C. B.
- 2. Lamination battery must be used combined with a power unit (condenser and resistance), the loading method of which is shown on pp 13 & 14.
- 3. The circuit check is carried out the same way as when the ordinary battery is used (pp. 7 & 8). However, shutter must be released 4 or 5 seconds later after the midget lamp has been pressed or the test lamp inserted, to allow ample time for the condenser to be charged, which livens the flash circuit.
- 4. The power of lamination battery is checked by pressing the midget lamp (a, p. 7) for 4 or 5 seconds and then pressing the midget lamp (b, p. 7). If the lamps are lighted, the battery is strong enough to charge the power unit.

LOADING THE LAMINATION BATTERY



- (1) Removing the bottom cap of the battery case, encase the power unit in such a way that the spring faces upward.
- (2) Then insert a lamination battery, the same size as a dry battery (size D), with the plus end up & minus end down, and replace the bottom cap. The incorrect direction of the battery placed may impair the power unit.
- (3) The power unit must not be used with the ordinary dry battery.



BATTERY LOADING



Additional Battery Case

Batteries Size D

Bottom Cap



For a shutter speed of $1/500$ of a second or when more than two flash bulbs are consumed on the circuit, increase the battery voltage to not less than 4.5 volts.

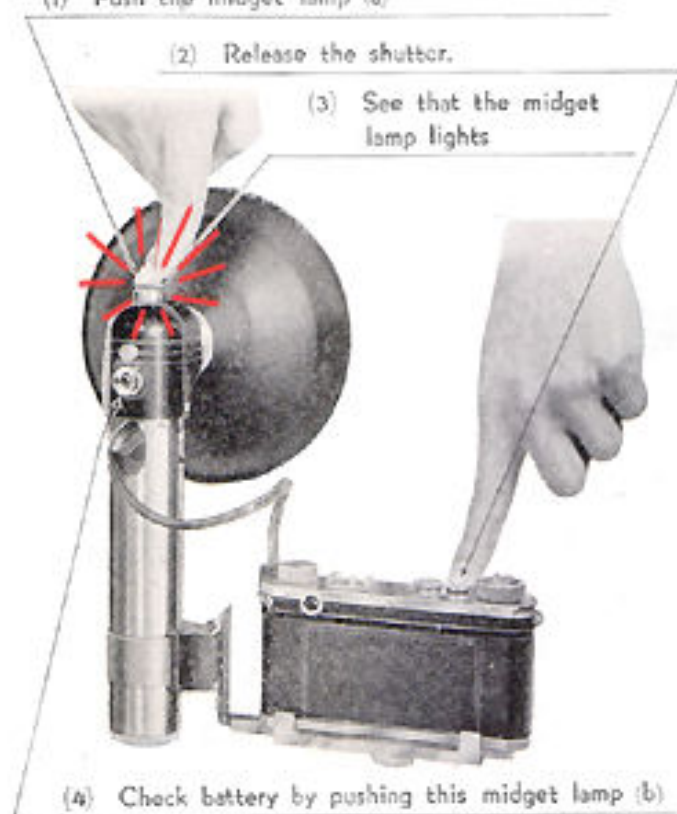
CIRCUIT & BATTERY CHECK

Check Flash Unit and camera synchronizer circuit before shooting.

(1) Push the midget lamp (a)

(2) Release the shutter.

(3) See that the midget lamp lights



(4) Check battery by pushing this midget lamp (b)

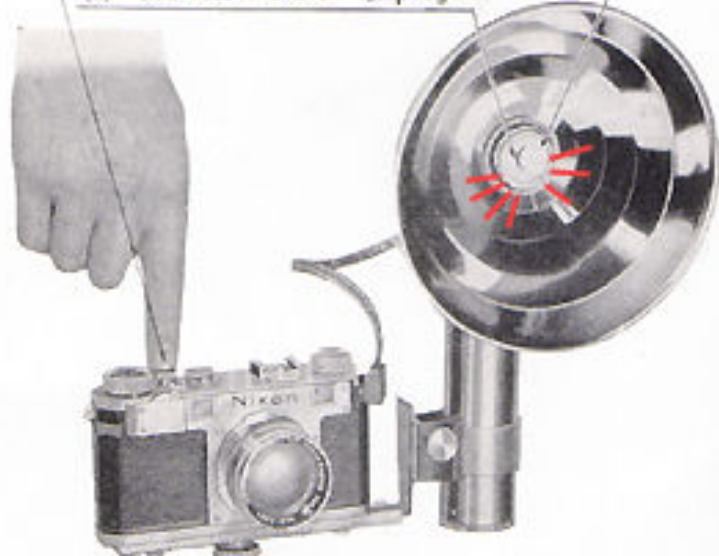
SOCKET CHECK

To check flash bulb socket connection:

(1) Put the test lamp into the socket

(2) Release the shutter.

(3) See that the test lamp lights.

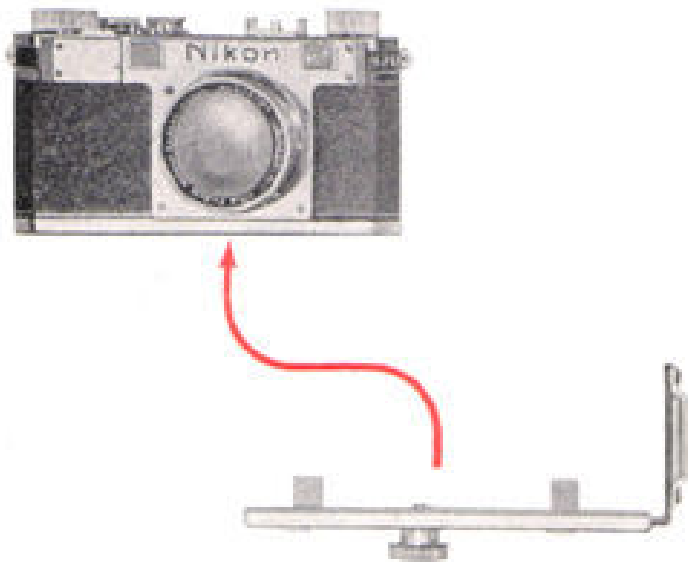


1. In the above tests, if the midget lamp or test lamp is not lighted, check the filament which may be found snapped.

To change the damaged midget lamp for a new one, unscrew the plastic piece containing the lamp. Use a 6.3 volt bulb used in a radio set.

2. The snapped midget lamp bulbs do not interfere with the circuit; therefore even if they do not light in the test, flash synchronization will work.
3. If undamaged midget lamp bulbs are not lighted, check batteries.
4. After the circuit and battery tests, and the socket connection found complete, the camera is ready for flash shooting. Wind up the shutter and push the release button, and the flash synchronizes with the shutter release.

MOUNTING



When it is desired to adjust the height or change the direction of the Nikon Flash Unit, loosen the clamp screw.

The Nikon flash gun can be fixed to the camera with the ever-ready carrying case attached.



3

MEDIUM
BASE
BULB



MIDGET
LAMP
ADAPTER



MIDGET
LAMP

EJECTING used bulbs



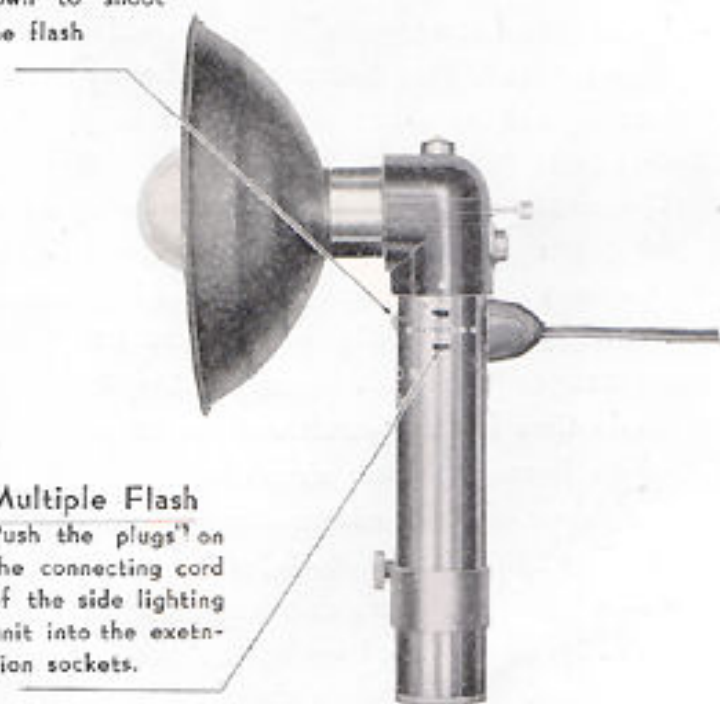
INDEPENDENT UNSYNCHRONIZING FLASH AND MULTIPLE FLASH

Independent unsynchronizing Flash

Press the trigger
down to shoot
the flash

Multiple Flash

Push the plugs¹ on
the connecting cord
of the side lighting
unit into the exten-
sion sockets.





For both fast and slow shutter speeds, thrust the larger plugs on the connecting cord into yellow sockets found on the rear side of the flash gun.

For fast shutter speeds
1/20-1/500 sec.

Push the smaller plugs on the connecting cord into sockets marked "F" on the camera, when fast shutter is used.



Focal plane shutter bulb
must be used

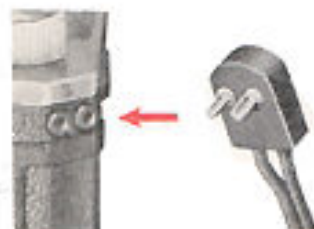
GE	No. 6	No. 31
Sylvania	FP 26	No. 2A

And push the smaller plugs on the connecting cord into sockets on the camera.



For slow shutter speeds
1-1/8 sec.

Push the smaller plugs on the connecting cord into sockets marked "S" on the camera, when slow shutter is used.



Open flash bulb
must be used

GE	No. 5	No. 11	etc.
Sylvania	Press 25, 40		etc.

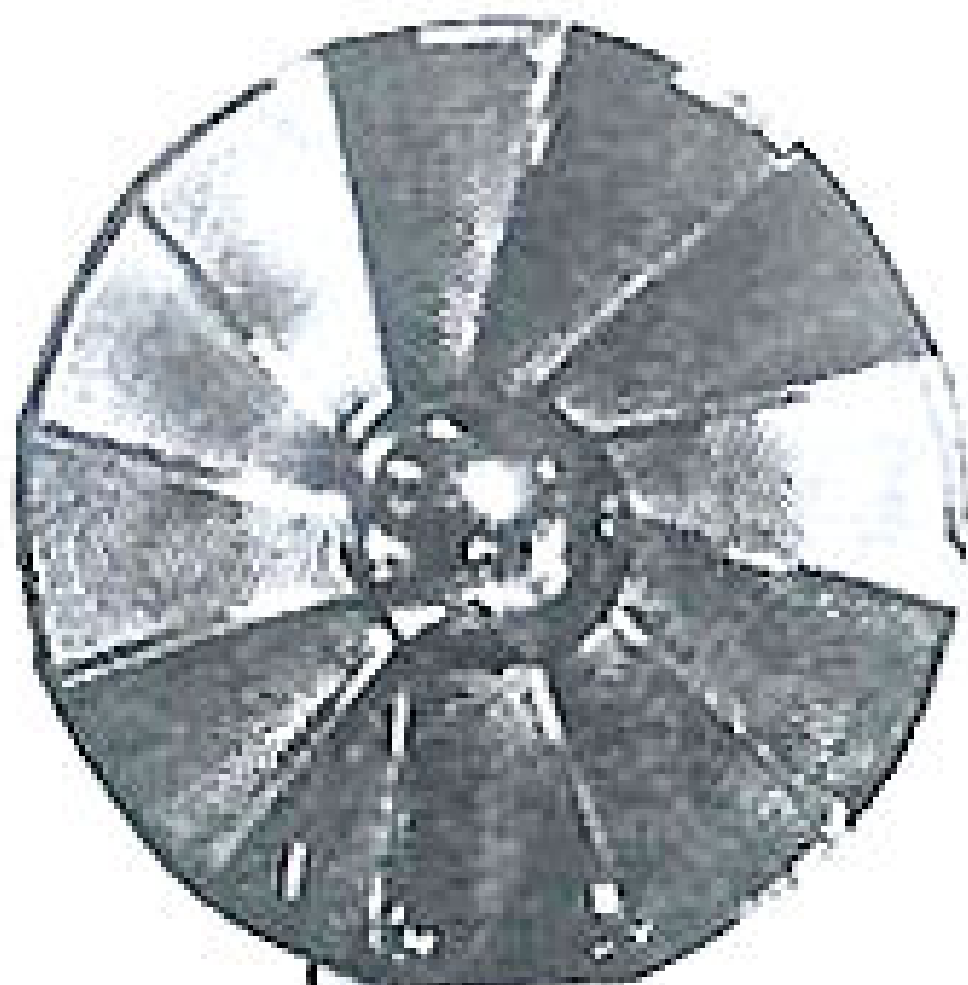
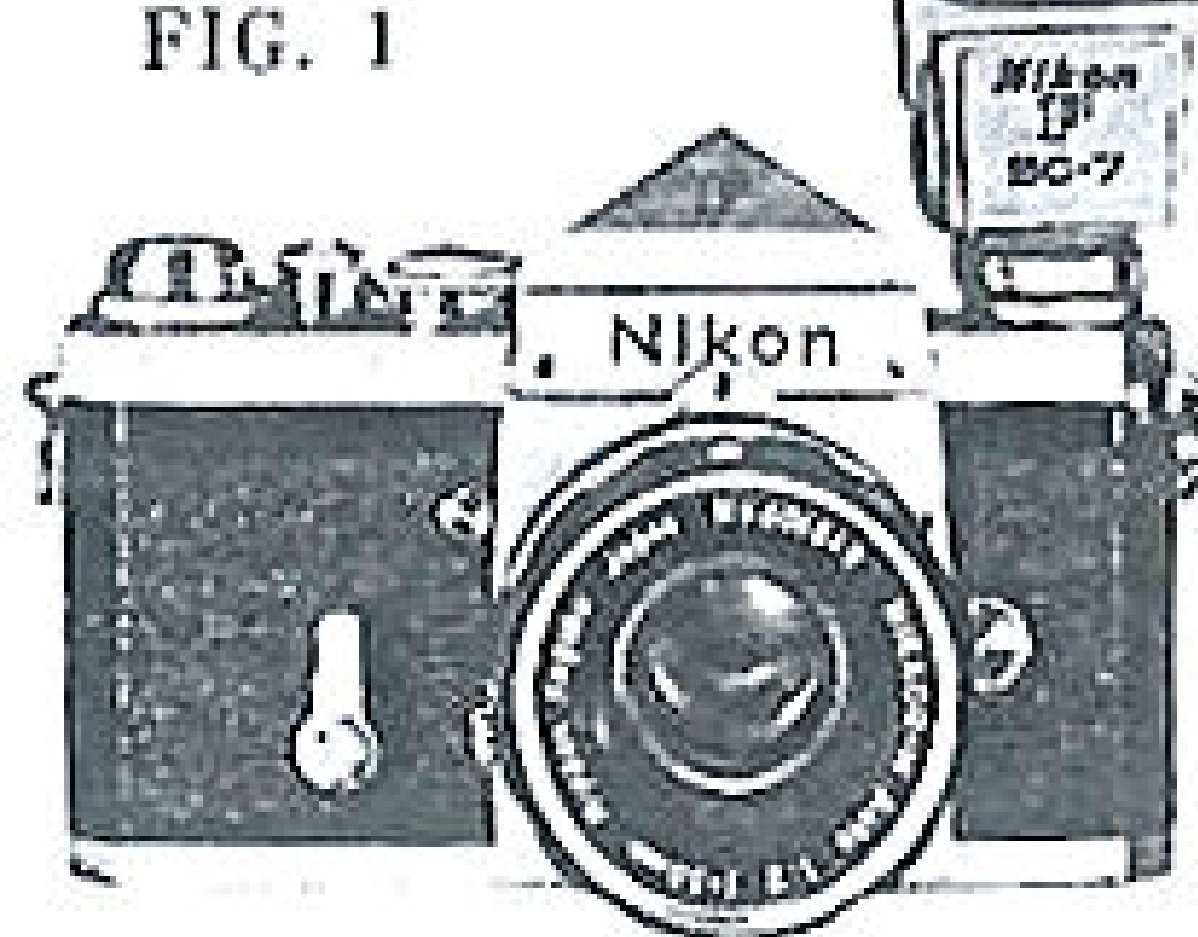
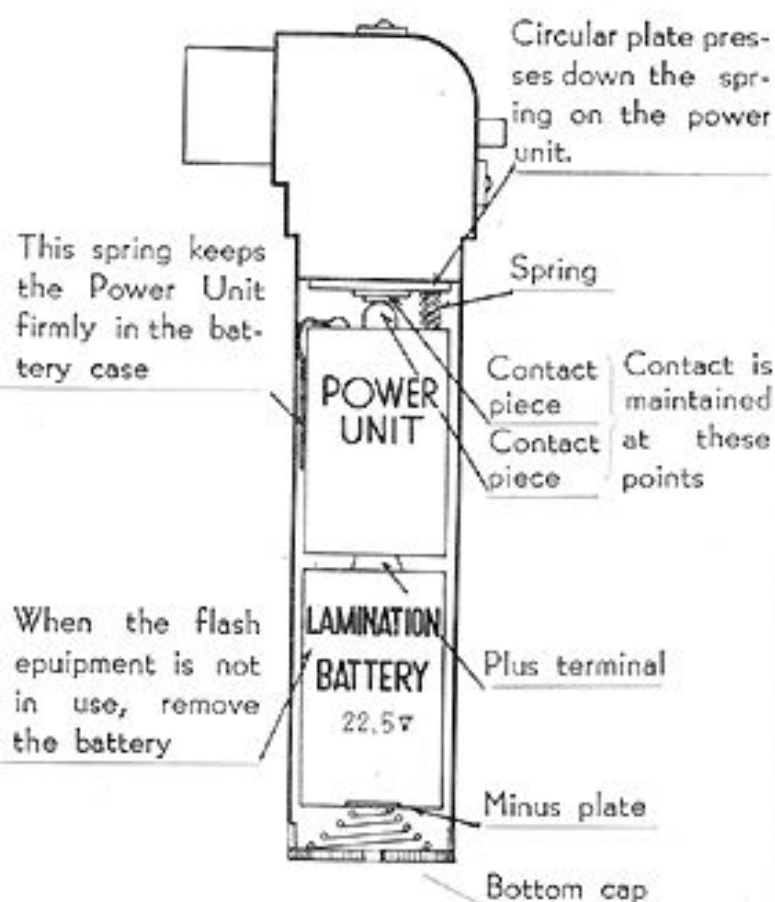


FIG. 1

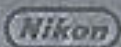


CONTACT OF POWERUNIT & LAMINATION BATTERY



REMARKS

1. The flash lamp is automatically lighted with the release of the shutter button, which must not be touched until all is ready.
2. Before the flash bulb is inserted, make sure that the winding of film is in the "advance" direction indicated by "A" on the camera top. When the film winding is in the "reverse" direction indicated by "R", the circuit will have already been closed without the shutter being released, so that the flash bulb will go off instantly when it is inserted.
3. The body of camera and Flash Unit must be electrically insulated as the flash circuit is not earthed.
In pushing the flash bulb into the socket care must be taken so that the base of the bulb does not touch any other part than the inside of the socket
4. Voltage of lamination battery must not exceed 22.5V, if it does, the power unit may be damaged.
5. A slight electric shock from the lamination battery when the hand is not dry is harmless.



NIPPON KOGAKU K. K.

TOOKYO, JAPAN



Nikon

**FLASH UNIT
BC-7**

INSTRUCTIONS

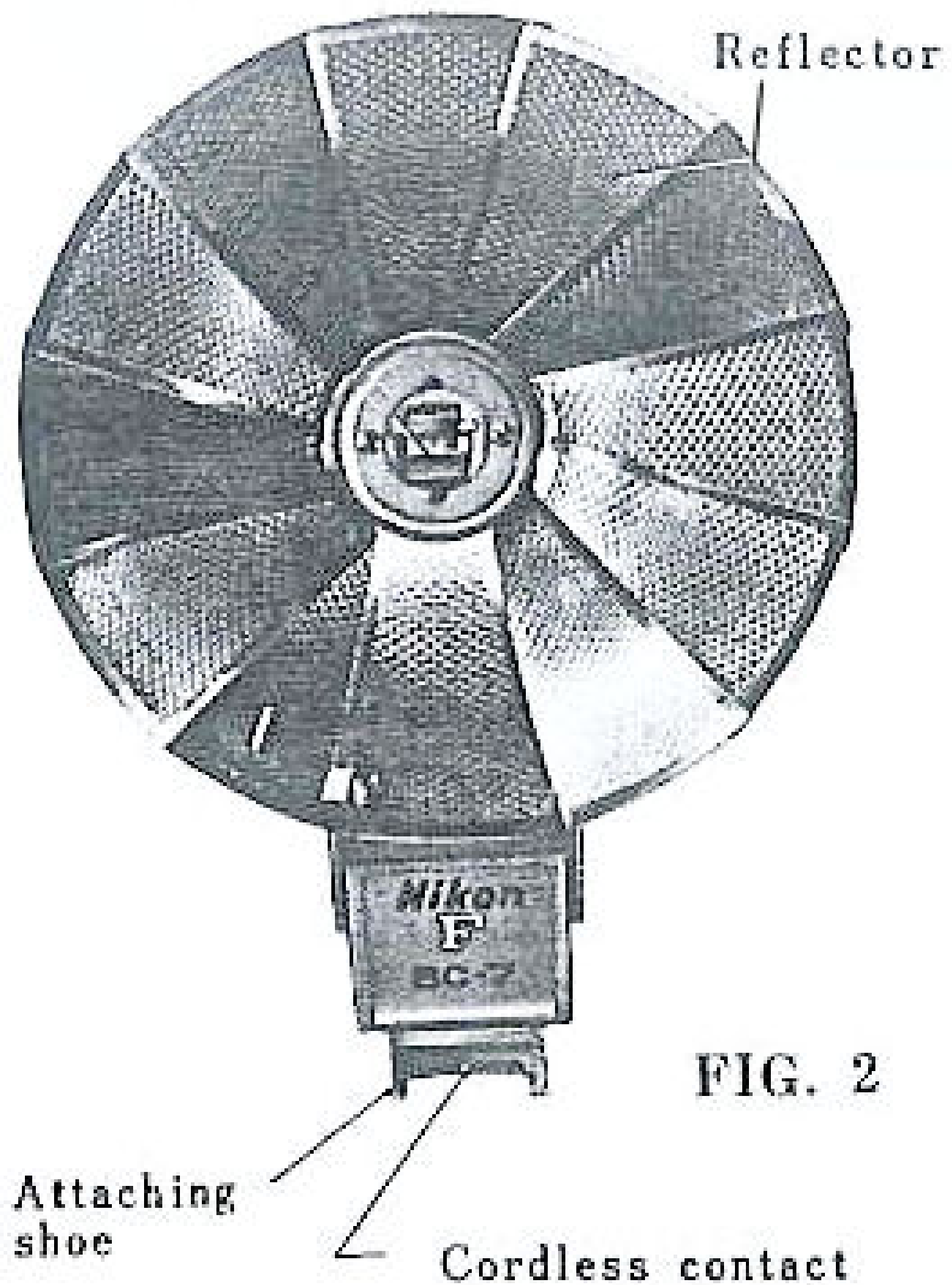
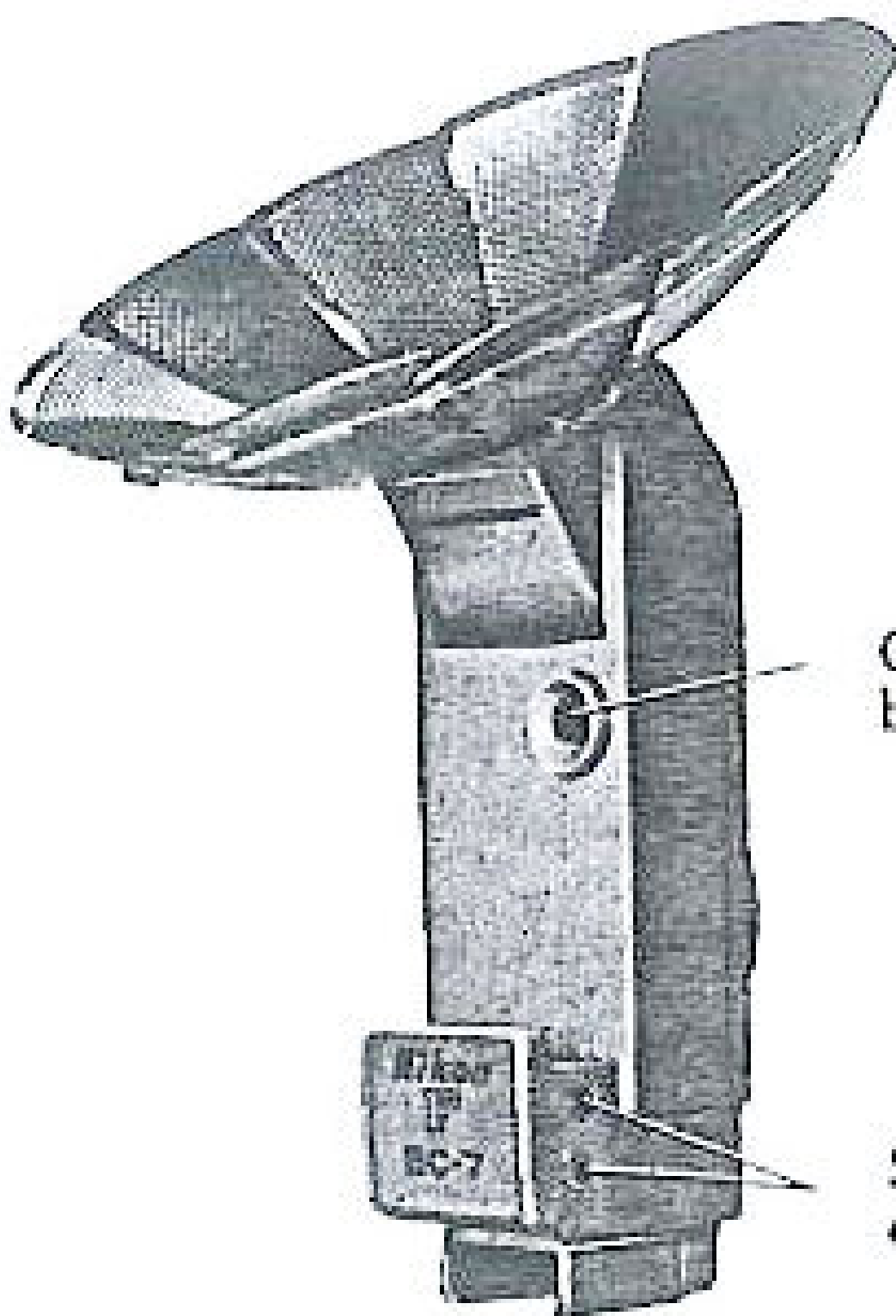


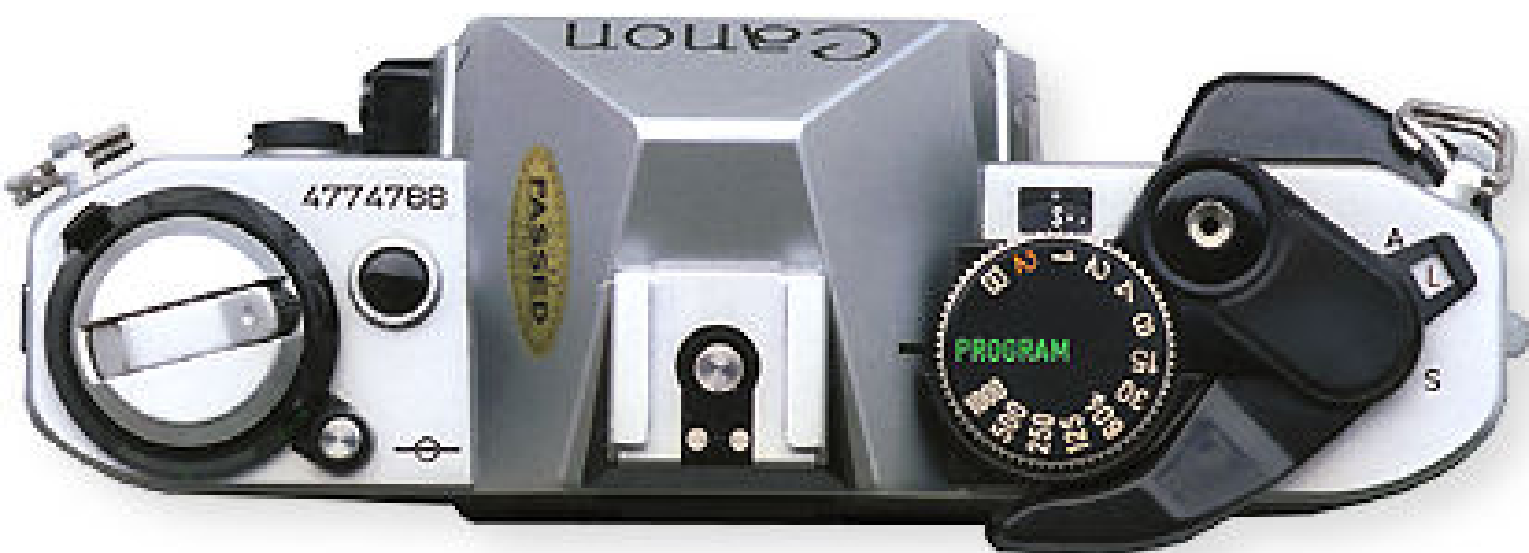
FIG. 2



Circuit testing
button (red)

FIG. 3

Synchronization
cord socket



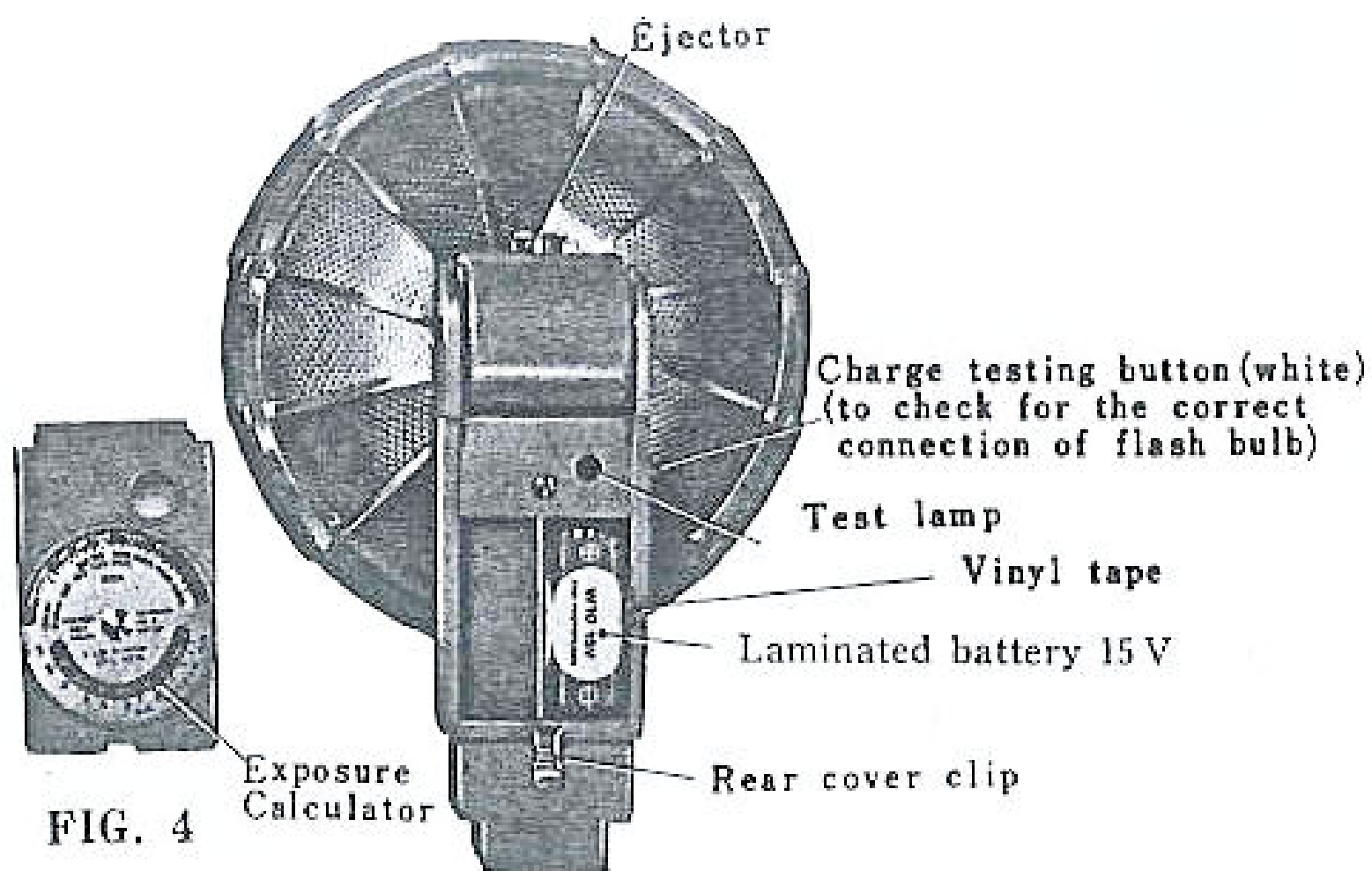
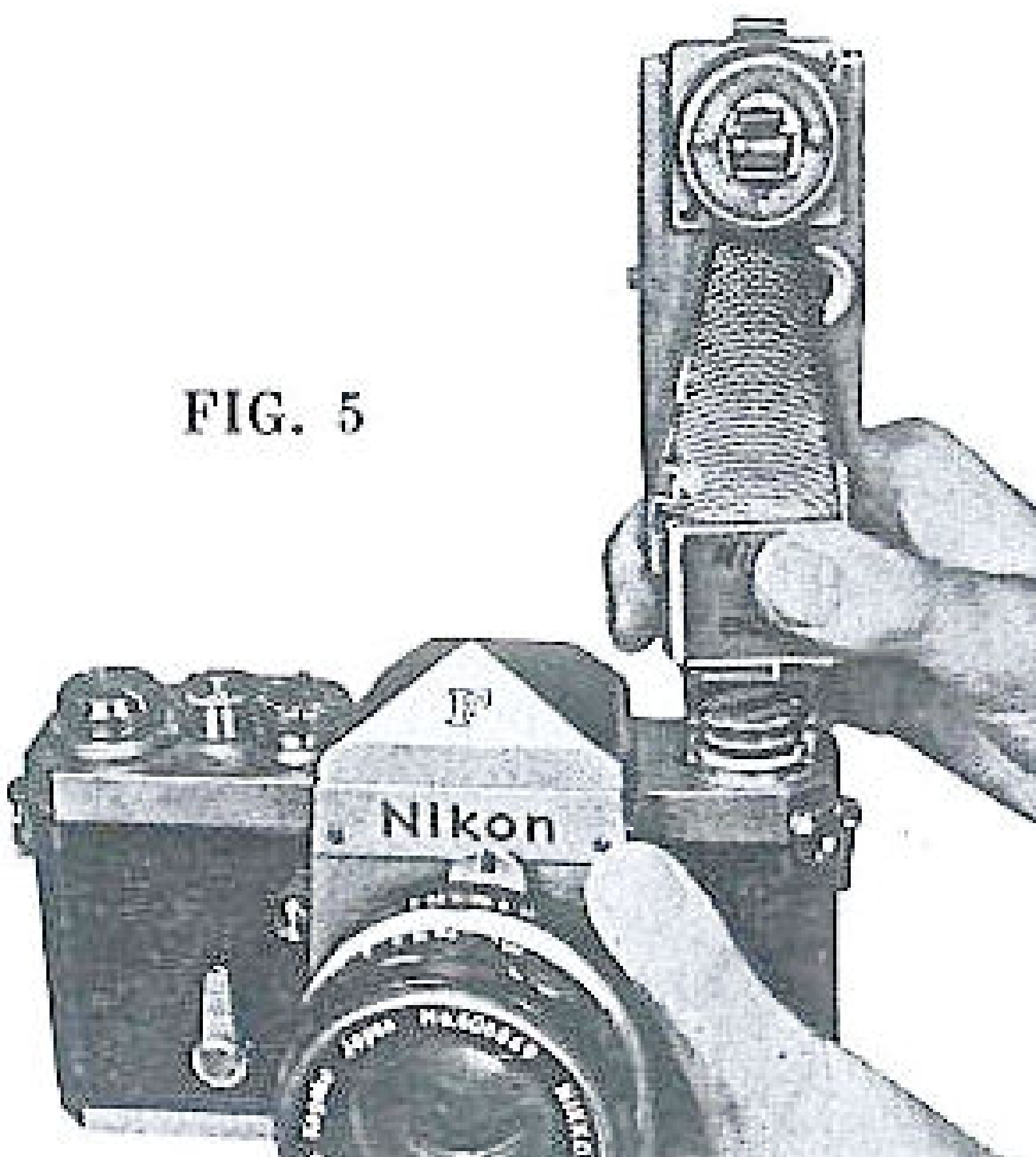
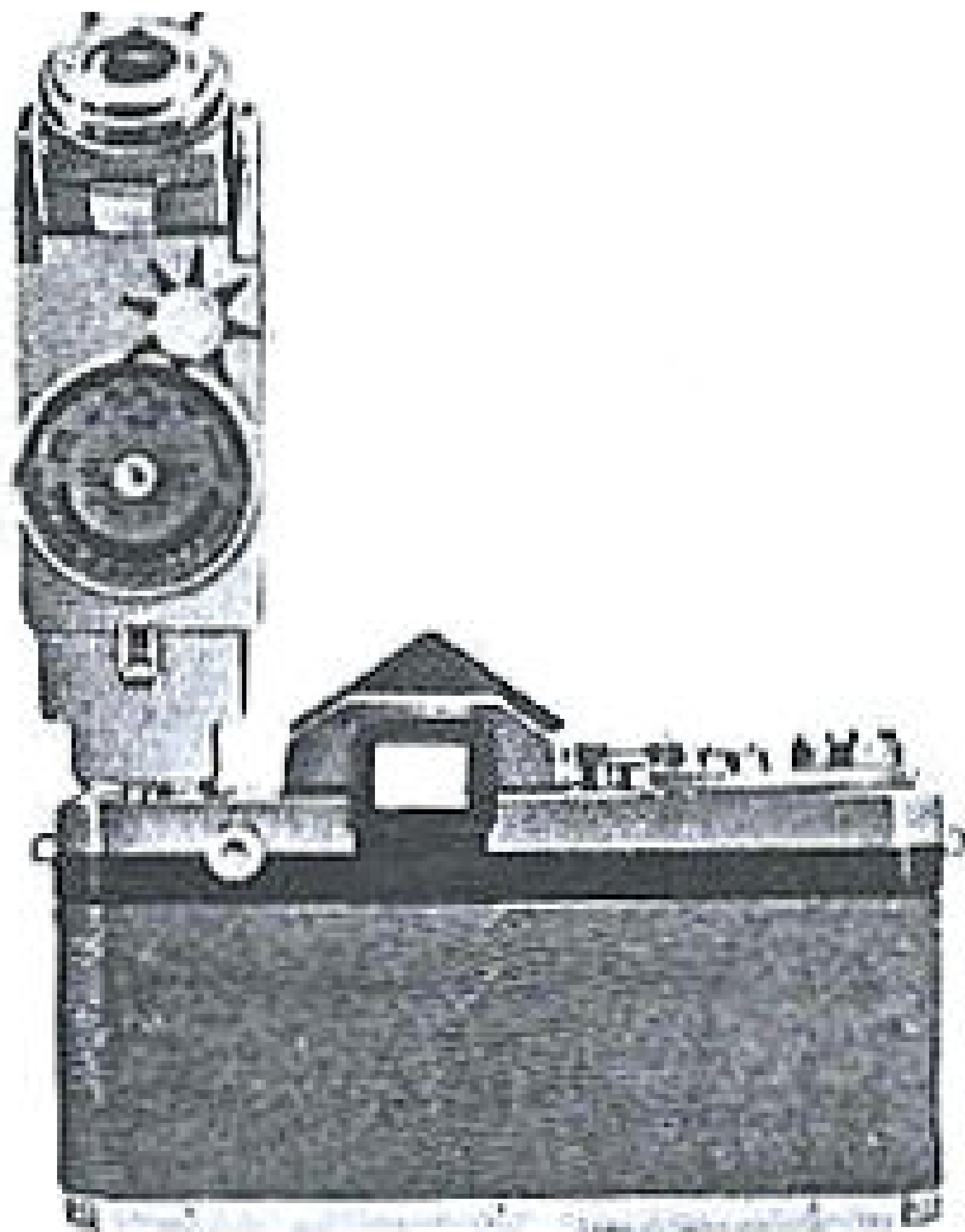
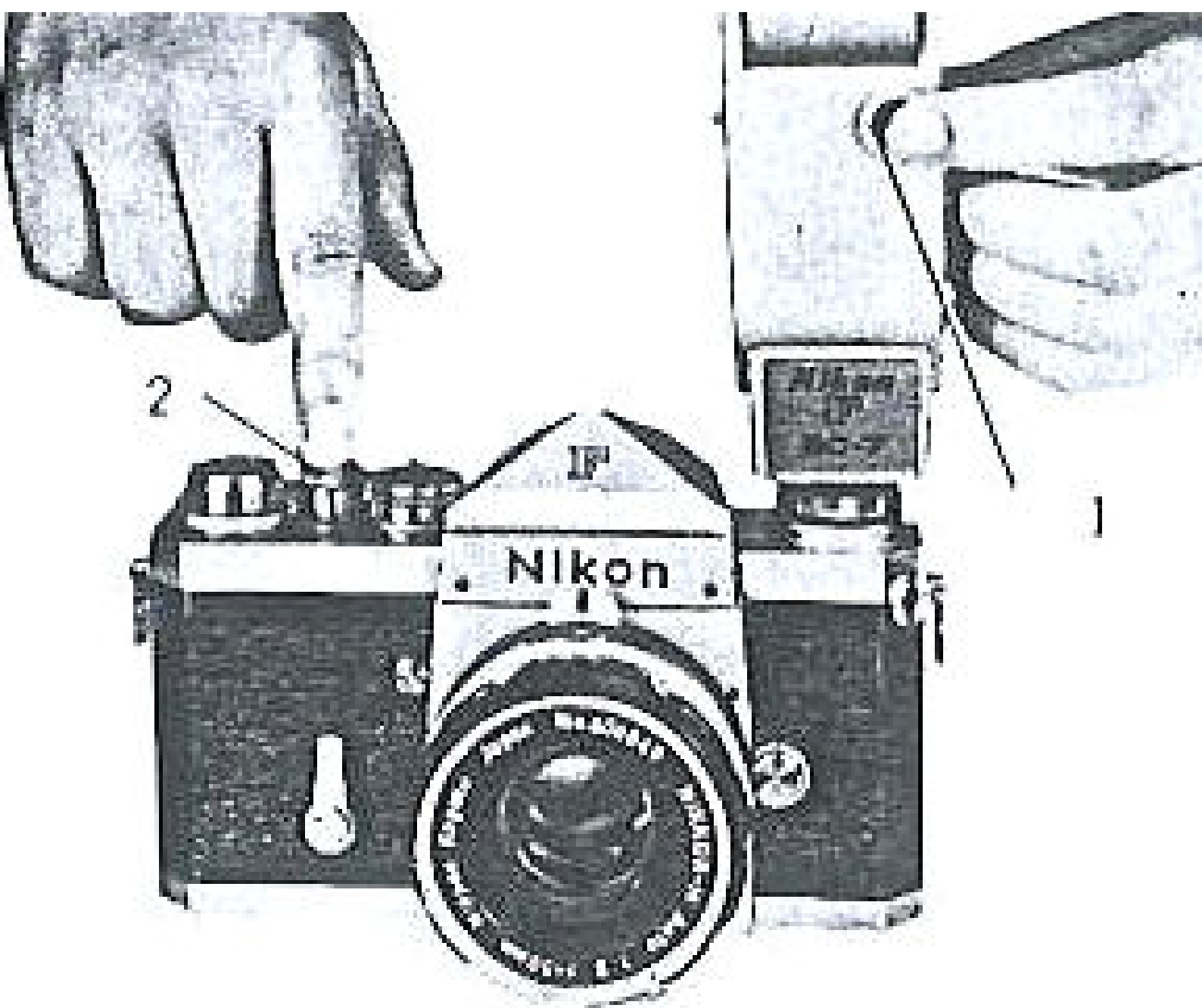


FIG. 5







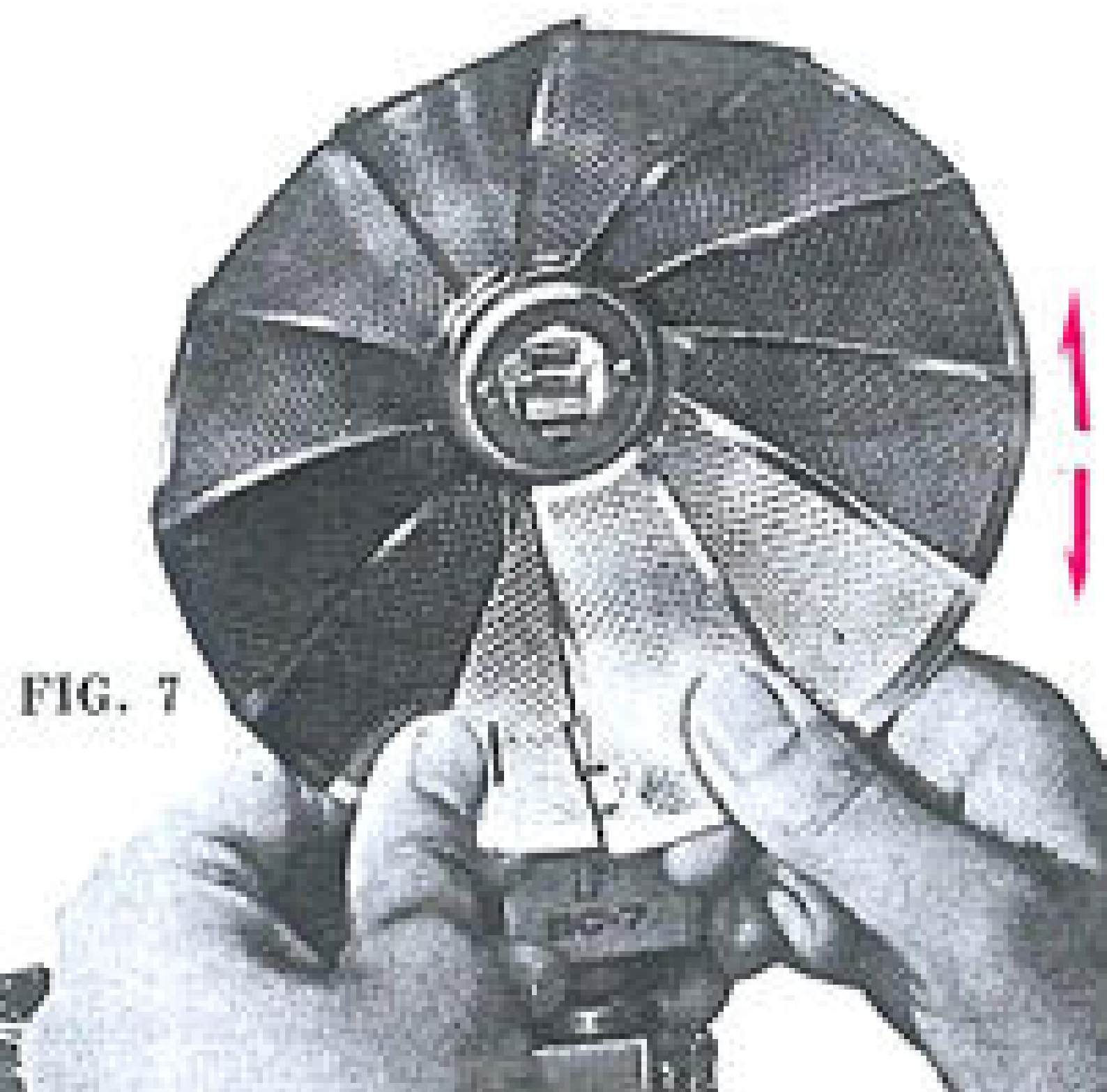


FIG. 7

FIG. 8

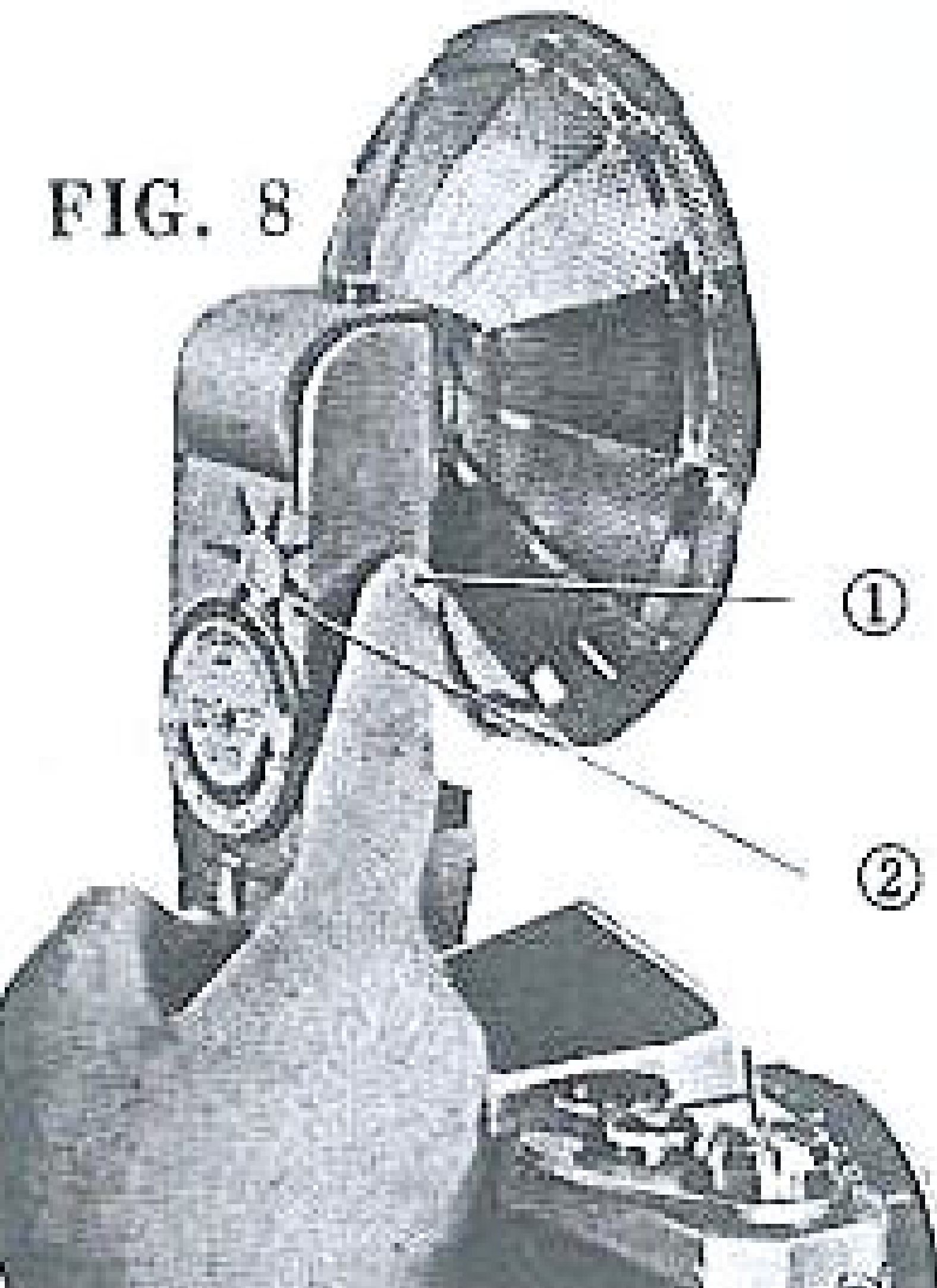


FIG. 9

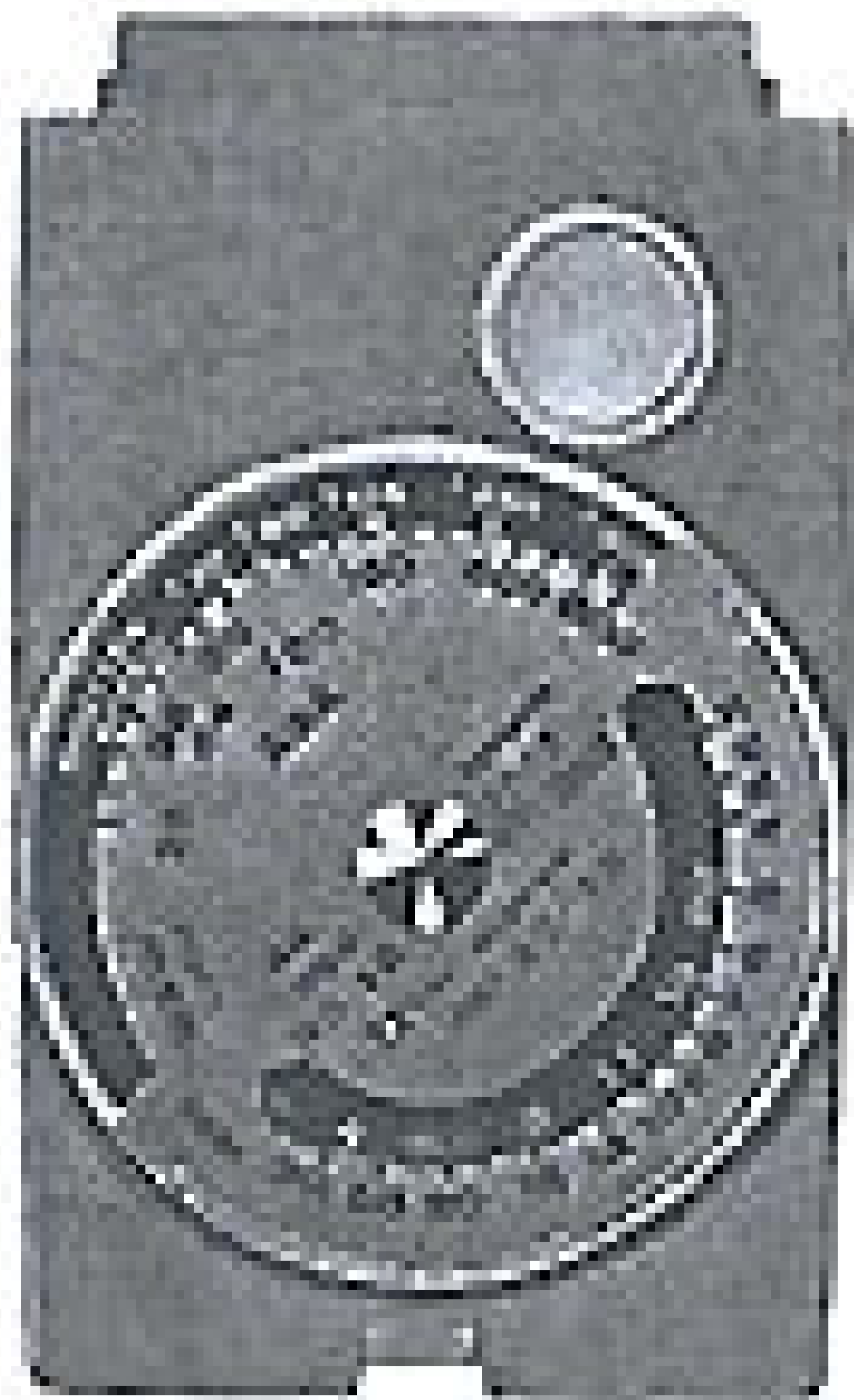


FIG. 10



FIG. 11





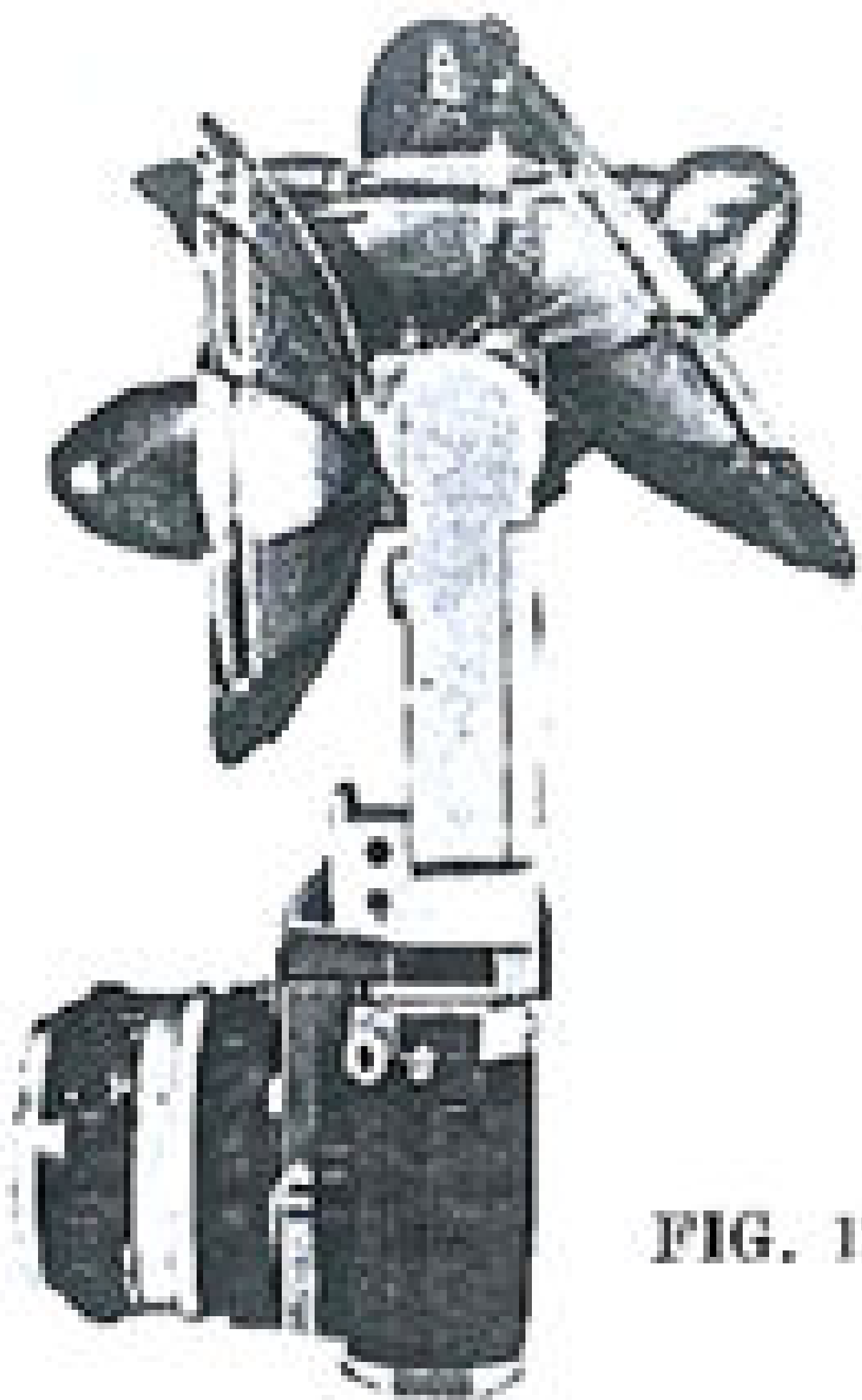
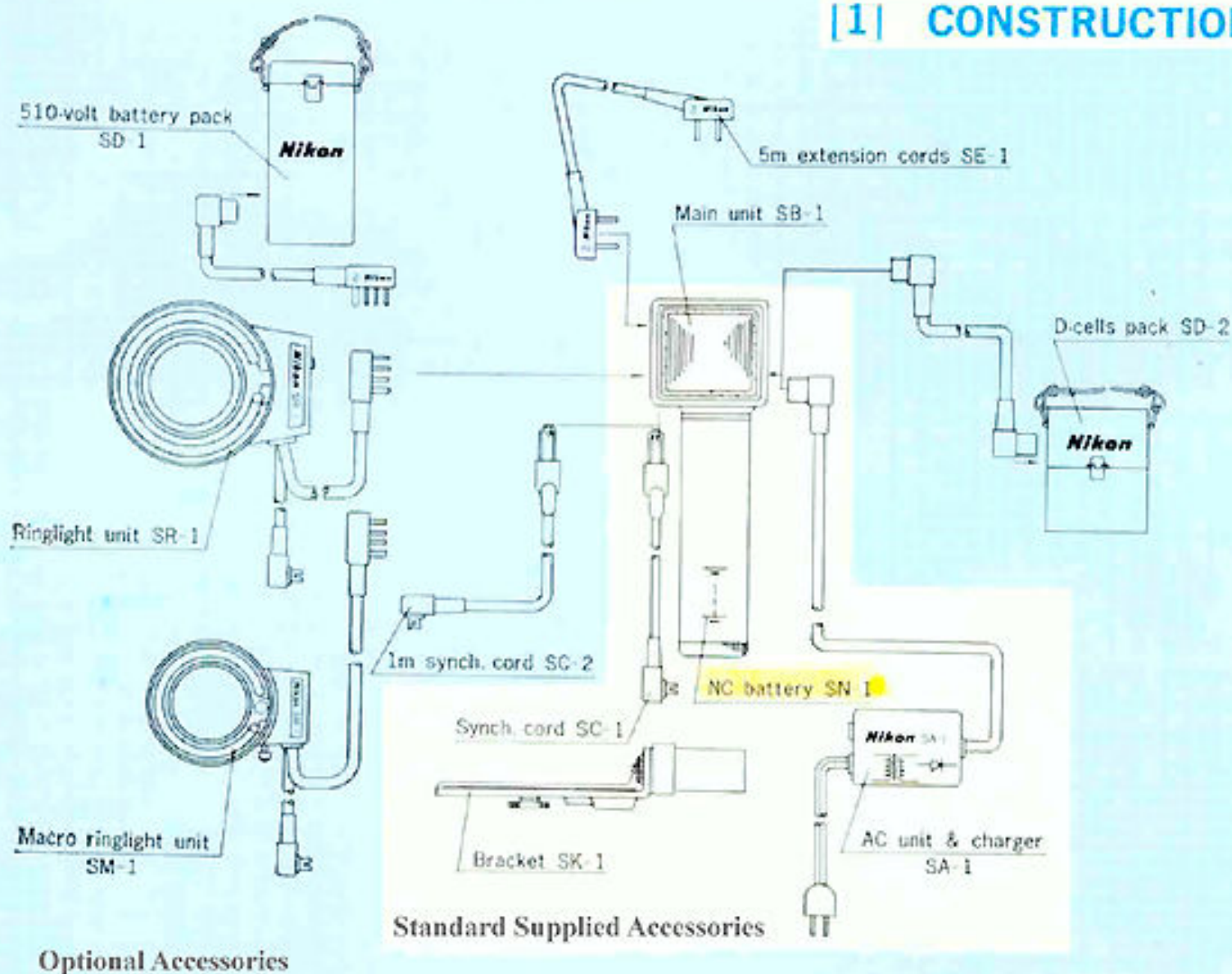


FIG. 12



[1] CONSTRUCTION



[2] NOMENCLATURE

















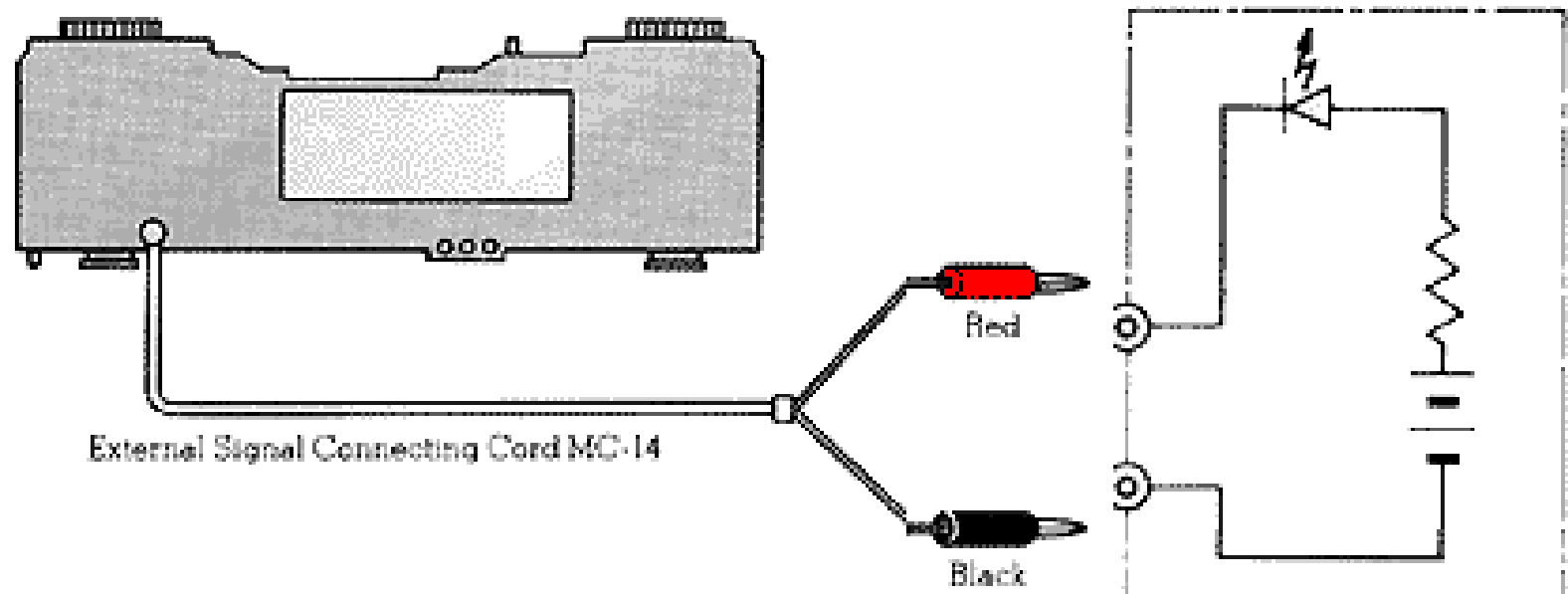


Table 1

Manganese batteries	12 14
Alkaline-manganese batteries	20 25
NiCd Battery Unit MN-2	10

 : The range of guaranteed firing rate.

 : The range within operative battery power but without guarantee of the specified firing rates.





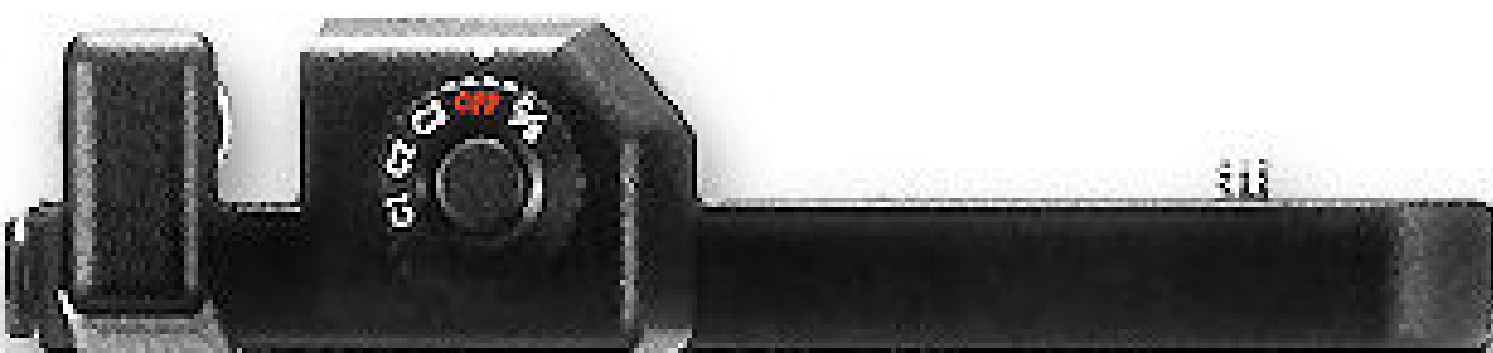




















A side-profile photograph of a Nikon T 8300022 camera. The camera is black with a silver-colored top plate. A red arrow is drawn on the image, pointing from the right towards the lens assembly. The lens is a multi-element design with several visible glass elements and a black barrel. The camera is positioned horizontally against a plain white background.

Nikon T 8300022





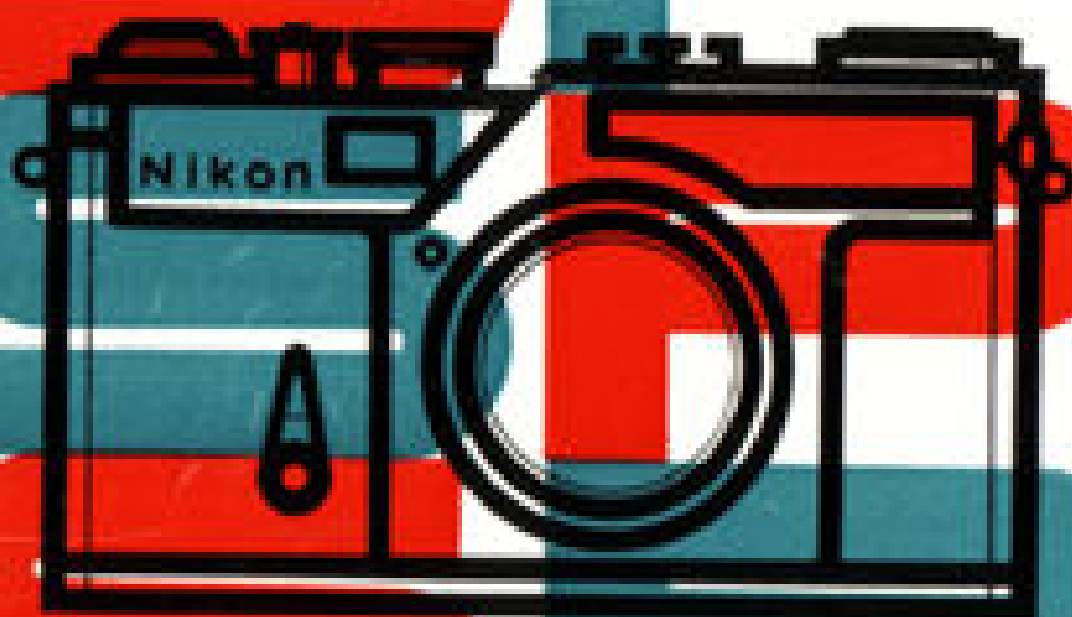
Nikon
CAMERA

Nikon
CAMERA



SSFP
SSFP

Nikon



INSTRUCTIONS

SSFP

Front View

1. automatic exposure meter
2. film load indicator
3. shutter release button lock, above frame for assembling video reference
4. single stroke film advance lever
5. roll mag. for winding film reference (2) and film crystal (3)
6. shutter speed indicator/guide
7. synchro indicator for flash synchronization
8. synchro indicator and flash synchronization pointer
9. memory dial
10. picture constant for variable flash gun
11. auto lock indicator
12. film rewinding crank
13. dial for auto stop
14. bracket for flash and electronic flash
15. camera view and range finder window
16. depth of field scale
17. spring scale for lens
18. auto exposure of mounting roll mag
19. mounting cradle
20. roll mount
21. rotary lock for mounting wheel
22. focusing wheel
23. lens on lens cap

