

## INSTRUCTIONS FOR MINIATURE CAMERA

Center the object in the focusing finder (H) and hold the camera steady and press the shutter release lever (F). This is all you need to take fine picture which enlarges to wallet-size print,  $2\frac{1}{4}'' \times 2\frac{1}{2}''$ .

### Main Parts of BABY-MAX

Lens: Single meniscus lens of fixed focus.  
 Shutter Speeds: 1 (1/25 sec.) & B (time release).  
 Takes 10 pictures of 14m/m $\times$ 14m/m size.  
 Camera size: 60m/m $\times$ 30m/m $\times$ 35m/m.  
 Equipped with genuine pig skin case.

- A. Back lid locking device
- B. Film spool locking devices
- C. Film winding spool
- D. Film winding knob
- E. Shutter speed lever  
(1 for instant and B for time release)
- F. Shutter release lever
- G. Picture taking lens
- H. Focusing Finder
- I. Winding cam

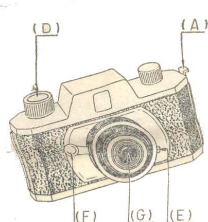
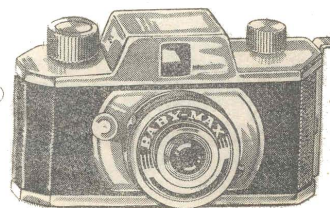


fig. 1

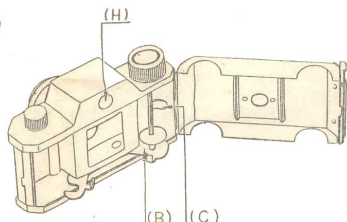


fig. 2

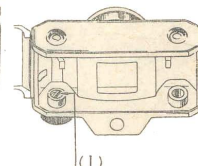


fig. 3

### To load the film

- 1) Push the back lid locking device (A) upwards and open the back lid.
- 2) Raise the film spool locking devices and place the camera so that focusing finder (H) will be on bottom position fig. 3. Put film winding spool (C) so that film spool slit will engage the winding cam (I) located at the opposite end of film winding knob (D) and lock the spool. Turn the knob two or three times and see if the spool will turn smoothly.
- 3) Draw out about 2'' of film leader paper and place the loaded film into film chamber. Insert the end of leader paper into film winding spool (C) and lock the film spool locking device. Then roll one or two times so that film will not slip out.
- 4) Close the back lid and lock it. Turn film winding knob slowly. Arrow will appear on leader paper, then black dots and finally figure 1 will appear. The first film is now in proper position for picture taking.

### How to take picture

- 1) Have the sun behind you. Center the object in focusing finder (H) and press the shutter release lever (F).  
 Following shutter speeds are recommended to use.  
 For snap shots: 1 speed  
 For less bright day: B speed

### IMPORTANT

BE SURE TO HOLD CAMERA STEADY OR  
 PREFERABLY REST THE CAMERA ON PLATFORM

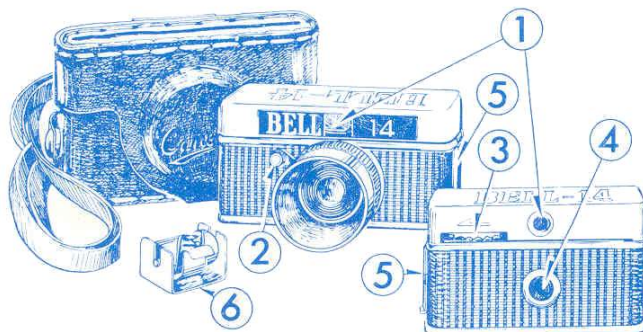
- 2) When first film is taken, wind the film winding knob (D) so that figure 2 will appear on the leader paper.
- 3) Repeat the operations until 10 pictures are taken.

### To take out the film

- 1) When 10 pictures are taken, continuously wind the film winding knob (D) so that the whole of leader paper is wound on film winding spool (C).
- 2) Open the back lid. Raise the locking device and take out the spool.
- 3) Be sure to take the film out in the shade to avoid the sunlight to seek into exposed film.
- 4) When exposed film is taken out, seal it and wrap it with paper. Then have it developed or enlarged.

# EXPLANATION OF Bell—14

Lens: Fixed Focus System  
Shutter: 1 Instant (About 1/50 sec.)  
Size: For Use of Midget Film (14mm × 14mm)  
Accessory: High quality leather case

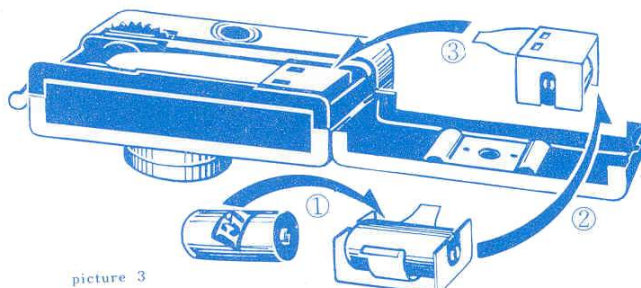
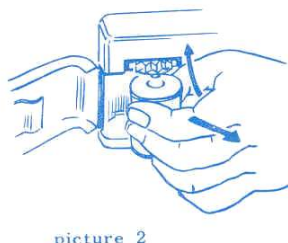
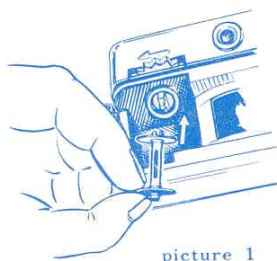


## How to put in Film

- A. Push up the Back Cover Latch (5), and the back cover will open.
- B. Pick up the Winding Spool, get the slot of spool to meet the winding axis and by pushing it upwards, fix it firmly. (refer to picture 1)
- C. Cut the seal of film after you put your film into magazine (6), and pull out the leading paper a little longer than it is enough to reach the winding spool. (Take care as the film will be loose if you cut the seal of film before you put it into magazine.)
- D. Insert the edge of pulled-out leading paper to the slot of winding spool and turn it about twice. After confirming that the film is wound, shut the back cover and push down the latch (5).
- E. Looking at the back window (4), turn the winding knob to the direction of the arrow mark and "1" will appear on the back window. Then, start taking pictures there. After you took the first picture, then put "2" on the window and take the second picture and thus you can take proceeding pictures in the same way. (If the winding is not smooth, put your nail to the notches of knob and turn it to the direction of the arrow mark. Then you can wind easily.)
- F. When you put in the film, do it carefully in the shade, never in the sun.
- G. When you put film into a camera, please follow picture (3). If you fail to do so, you cannot take pictures.

## How to take pictures.

- A. Looking into Finder (1), just push the Shutter quietly, and then you can take a beautiful picture.
- B. After you finish taking all the ten pictures, looking at the back window, wind up until the leading paper disappears at all and open the back cover by pushing up the back cover latch (5). Pick up the film, push it upwards and take it off (refer to picture 2). Then, fix the film with seal so that it will not be loose.





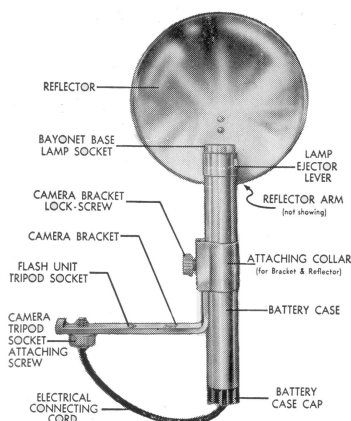
UNIVERSAL'S

# *Minute* 16 FLASH UNIT

The MINUTE-16 Flash Unit has been specially designed for use with your MINUTE-16 camera. It is small, compact, serviceable, an efficient yet truly "minute" accessory unit.

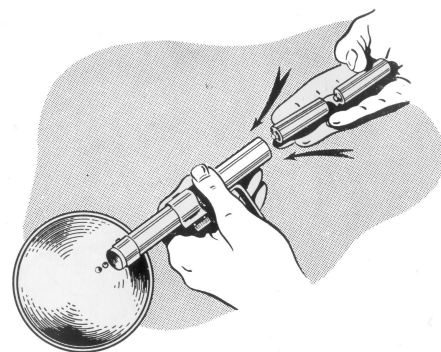
The Flash Unit uses the small "midget" type, photoflash lamps, and electrical current is supplied by 2 "penlite" cells. It can be disassembled and thus easily carried in pocket or purse; and is re-assembled for use quickly and easily. All in all, it is a convenient, low-priced accessory, which, when teamed with the built-in flash synchronization of your MINUTE-16 camera, makes you independent of existing light conditions. With this combination, you carry your light along with you.

1



The MINUTE-16 Flash Unit may be disassembled into its 3 component parts, by removing the Camera Bracket and Reflector from the Battery Case. To reassemble the Unit, slide the arm on the Reflector all the way into the socket located at the rear of the attaching collar around the Battery Case; and slide the Camera Bracket arm up into the socket located on the side of the attaching collar. The position of the Bracket is adjustable, and may be locked in any desired position by tightening the lock-screw on the collar.

2



The batteries used in the Flash Unit are 2 "penlite" cells. Eveready size AA, No. 915, or any other standard penlite batteries may be used.

To install the batteries, unlock the black plastic, bayonet-lock Cap, located at the bottom of the Battery Case, by pushing this up and turning it to the left. Remove it, then insert the 2 cells with their brass tips facing the lamp socket (see illustration). Replace the Cap.

3

## PURCHASING ORDER

Date \_\_\_\_\_

To: **GEM INDUSTRIAL CORP.**  
CENTRAL P.O. BOX 545, TOKYO

**Gentlemen :**

Please send us (me) the following item(s). We (I) remit you \$ \_\_\_\_\_ by bank check. (For the sample(s), remittances may be sent in any way that is most convenient for you.)

| QUANTITY     | DESCRIPTION                                                                                                                                            | AMOUNT |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|              | "GEM-16" Camera, with leather case, yellow filter,<br>and instruction in English.<br>50 for \$65.00                                                    |        |
|              | 16mm Film, 10-pictures for each roll, Six roll<br>films in small box (Size of picture:<br>14x14mm, 60-pictures for each box).<br>100 boxes for \$20.00 |        |
|              | Sample: ("GEM-16" & six roll films) Each \$2.00<br>Added 85¢ for Air Mail (if wanted).                                                                 |        |
|              | Price: C.I.F. (Postpaid)                                                                                                                               |        |
| TOTAL AMOUNT |                                                                                                                                                        | \$     |

NAME : \_\_\_\_\_

ADDRESS : \_\_\_\_\_

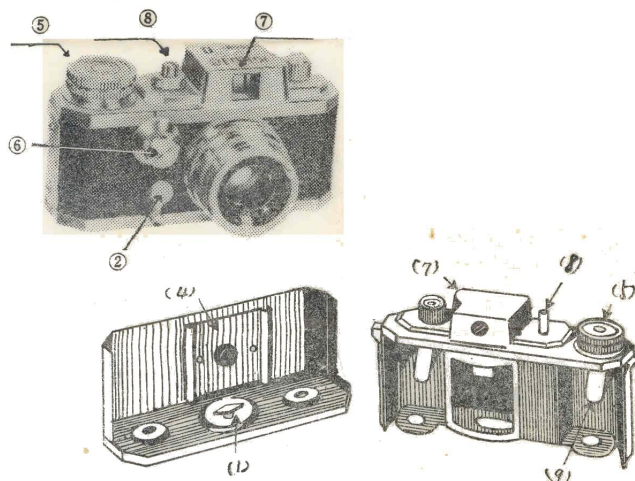
PLEASE PRINT OR TYPEWRITE

SIGNATURE \_\_\_\_\_



# INSTRUCTION

- (1) Bottom Lid Screw.
- (2) Shutter Set Lever.
- (3) Spool Holding Spring. (Horizontal)
- (4) Film Counting window.
- (5) Film Winding Knob.
- (6) Shutter Adjusting Knob.
- (7) Finder Lens.
- (8) Shutter Release Button.
- (9) Spool Holding Spring (Vertical)



## HOW TO LOAD FILM

- a) Remove Back Lid by turning Bottom Lid Screw (1) so that red spot comes in front of O and take out the Take-up Spool.
- b) Remove tape from film and pull out the end of lid paper, insert the end of lid paper into the Take-up Spool and turn the spool 2 or 3 times so that the lid paper will catch on to the spool. In this operation, hold the film firmly by one hand so that film will not unroll which causes light leakage. Hold spool by one hand and film by other hand and load the film. Make sure that the driving shaft will engage the slit of the Take-up Spool.
- c) Replace Back Lid and turn bottom lid screw (1) so that red spot comes in front of "S".
- d) Look through Film Counting window (4) located on the back of camera and keep on turning Film Winding Knob (5) until film number 1 will appear.

## HOW TO TAKE PICTURE

- a) Adjust the Shutter Adjusting Knob (6) either "T" (instant) or "B" (bulb) depending on the condition.  
Bright Day....."T" (about 1/30th second)  
Dull Day....."B"
- b) Focus the object through the Finder Lens (7).
- c) Lift the shutter Set Lever (2).
- d) Press the Shutter Release Button (8).
- e) Turn the Film Winding Knob until No. 2 will appear through the Film Counting Window (4) and with this operation, Picture taking for the second film is now ready. Repeat the same operation until 10 pictures are taken.

## HOW TO UNLOAD FILM

- a) Wind the film completely by turning Winding Knob (5) continuously.
- b) Turn the Bottom Lid Screw (1) so that red spot comes to "O" and remove the lid.
- c) Pull down the spool holding Spring (3) and take out the film. Wrap the tape around the film and seal it. Be sure to wrap the film with thick paper to prevent the light leakage.

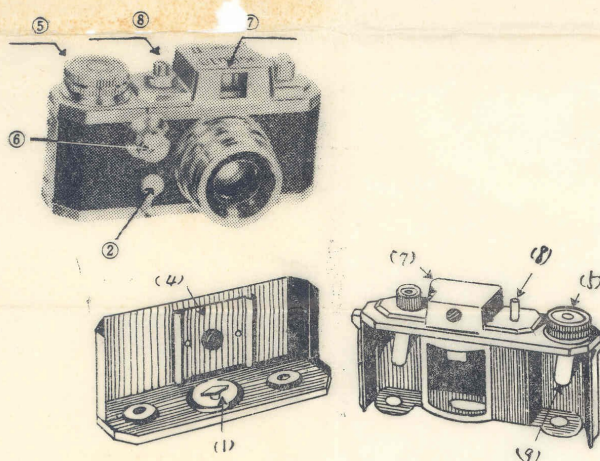
**NOTE:** ALWAYS KEEP THE CAMERA STEADY WHILE TAKING THE PICTURE. REST THE CAMERA ON PLATFORM WHEN USING "B" EXPOSURE

## Accessories available for this camera

Yellow Filter inserted in a Hood and cowhide case for same.

## INSTRUCTION

- (1) Bottom Lid Screw.
- (2) Shutter Set Lever.
- (3) Spool Holding Spring. (Horizontal)
- (4) Film Counting window.
- (5) Film Winding Knob.
- (6) Shutter Adjusting Knob.
- (7) Finder Lens.
- (8) Shutter Release Button.
- (9) Spool Holding Spring (Vertical)



### HOW TO LOAD FILM

- a) Remove Back Lid by turning Bottom Lid Screw (1) so that red spot comes in front of O and take out the Take-up Spool.
- b) Remove tape from film and pull out the end of lid paper, insert the end of lid paper into the Take-up Spool and turn the spool 2 or 3 times so that the lid paper will catch on to the spool. In this operation, hold the film firmly by one hand so that film will not unroll which causes light leakage. Hold spool by one hand and film by other hand and load the film. Make sure that the driving shaft will engage the slit of the Take-up Spool.
- c) Replace Back Lid and turn bottom lid screw (1) so that red spot comes in front of "S".
- d) Look through Film Counting window (4) located on the back of camera and keep on turning Film Winding Knob (5) until film number 1 will appear.

### HOW TO TAKE PICTURE

- a) Adjust the Shutter Adjusting Knob (6) either "T" (instant) or "B" (bulb) depending on the condition.  
Bright Day....."T" (about 1/30th second)  
Dull Day....."B"
- b) Focus the object through the Finder Lens (7).
- c) Lift the shutter Set Lever (2).
- d) Press the Shutter Release Button (8).
- e) Turn the Film Winding Knob until No.2 will appear through the Film Counting Window (4) and with this operation, Picture taking for the second film is now ready. Repeat the same operation until 10 pictures are taken.

### HOW TO UNLOAD FILM

- a) Wind the film completely by turning Winding Knob (5) continuously.
- b) Turn the Bottom Lid Screw (1) so that red spot comes to "O" and remove the lid.
- c) Pull down the spool holding Spring (3) and take out the film. Wrap the tape around the film and seal it. Be sure to wrap the film with thick paper to prevent the light leakage.

**NOTE:** ALWAYS KEEP THE CAMERA STEADY WHILE TAKING THE PICTURE. REST THE CAMERA ON PLATFORM WHEN USING "B" EXPOSURE

### Accessories available for this camera

Yellow Filter inserted in a Hood and cowhide case for same.



## Enjoy yourself with miniature Camera !

Just center subject in view-finder and snap the shutter.

Equipped as follows :

Lens: Single Fixed Focus.

Shutter: 1 (1/25)

Genuine Leather Carrying Case.

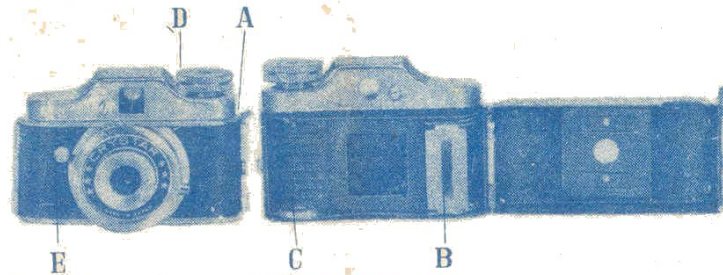
Takes 10 pictures of 14mm×14mm on 16mm Roll Film.

Size of Camera: 55mm×30mm×30mm.

### INSTRUCTION

#### Loading Film

- 1) Press the Opening Button (A) and open the Back Cover.
- 2) Draw out Film Holder (B) to insert the Film Cassette.
- 3) Draw out Film about 2 inches. Turn the winding knob (D) a little to bring the Spring Clip (C) to the center position.
- 4) Peep the window at the back cover and ascertain if the Film will advance smoothly. Camera is now ready for the first exposure.



### IMPORTANT

BE SURE TO HOLD CAMERA STEADY OR PREFERABLY REST THE CAMERA ON PLATFORM.

You can get better picture by taking in the sunlight.

---

### DEVELOPING AND ENLARGE PRINTS

Send your rollfilm to, JUNIOR PHOTO DEVELOPING LAB. P.O. Box 68, GRAVESEND Station, Brooklyn 23, N. Y.

The charge is \$1.00 dollar (bill or postal check) to be sent with each rollfilm for developing 10 exposures size 2½×2½.

You may send as many rollfilms as you wish at a time. No C. O. D. Please wrap rollfilm securely with heavy paper and mark your mailing envelope HAND CANCEL.

### SEND SELF STAMPED ADDRESSED ENVELOPE FOR RETURNING PICTURES AND NEGATIVES

We are obliged to charge the full remittance regardless of Picture result, which is beyond our control. Print your name clearly.

P.S. Allow reasonable time for developed pictures to reach you. It is unnecessary to inquire.

## Enjoy yourself with miniature Camera!

Just center subject in view-finder and snap the shutter.

Equipped as follows:

Lens: Single Fixed Focus.

Shutter: I(1/25) & B

Genuine Leather Carrying Case.

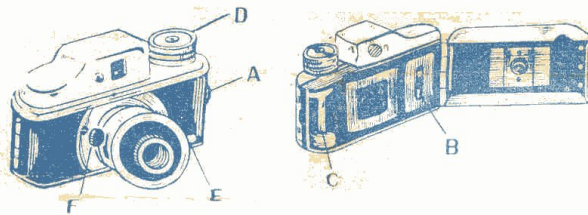
Takes 10 pictures of 14mm×14mm on 16mm Roll Film.

Size of Camera: 55mm×30mm×30mm.

### INSTRUCTION

#### Loading Film

- 1) Press the Opening Button (A) and open the Back Cover.
- 2) Draw out Film Holder (B) to insert the Film cassette.
- 3) Draw out Film about 2 inches. Turn the winding knob (D) a little to bring the Spring Clip (C) to the center position.
- 4) Peep the window at the back cover and ascertain if the Film will advance smoothly.  
Camera is now ready for the first exposure.



#### For Snapshots

- 1) Shutter (F) is to be operated by adjusting Button (E) in 2 different speeds ..... I & B  
Subject in sunlight ..... Use Shutter I.  
Subject in shade ..... Use Shutter B.

### IMPORTANT

BE SURE TO HOLD CAMERA STEADY OR PREFERABLY REST THE CAMERA ON PLATFORM.

You can get better picture by taking in the sunlight

#### Developing and Enlarged Prints:

We recommend that you send your Rollfilms to the SMALL FILM PHOTO LAB., P. O. Box 75, Kensington, Brooklyn 18, N. Y. They have specialized Automatic Machines and special Ultra-fine developing processing. The charge is only 7¢ each enlarged Wallet-Size Print. 3"×3½" -times 10 exposures equals 70¢ plus 30¢ for developing film, retouching (if necessary) and return postage. Send total of \$ 1.00 with each Rollfilm (and as many Rollfilms at a time that you pay for. Send \$ 1. Bills (Cash) or add 15¢ bank exchange charge to your checks or M. O.'s. No C. O. D.'s. Mark your Mailing Envelope in big letters near stamp "USE HAND CANCEL" If your local Retail Store cannot supply you-send \$ 1. for a liberal supply or Fresh tiny Rollfilms-postpaib.



## Direction for Use of "HOMER NO. 1" Miniature Camera

The HOMER NO. 1 camera is the best made miniature camera available from Japan for boys and children as well as girls. Please follow the instruction below, and enjoy nice pictures taking. With the HOMER NO. 1 camera, please use HOMER safety roll films, 10 shots of 14mm x 14mm.

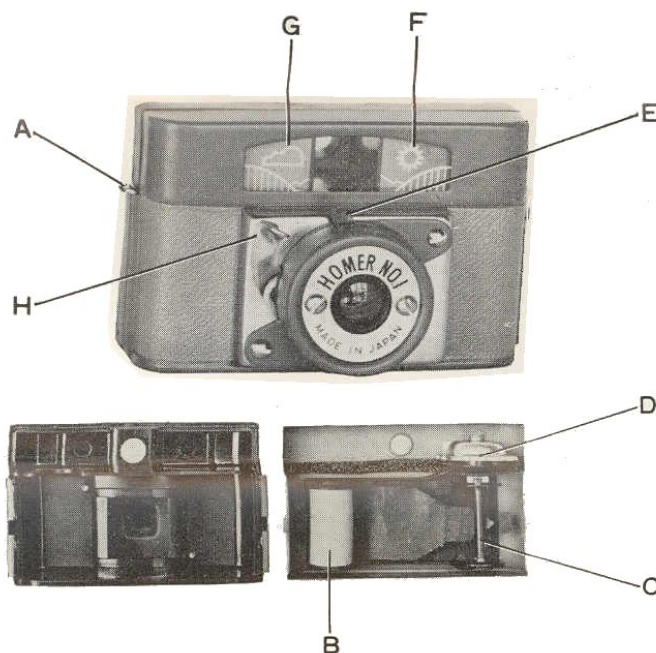
### HOW TO LOAD THE CAMERA :

Release the back-lid-lock by pulling up the lock (A) and take off the back-lid.

Insert an unexposed film-spool (B) in the film-holder. Undo adhesive tape of the film and unroll the film until its tip can be inserted into the slit of the take-up-spool (C).

Turn the film-winding-knob (D) into the direction of arrow which is marked on the back-lid until the film stretches and it winds the film properly.

Close the back-lid and wind the film until figure 1 appears in the film window of the back-lid. The camera is now ready for use.



### HOW TO TAKE PICTURES :

Set the diaphragm by moving the diaphragm set lever (E) on Sun mark (F) or Cloud mark (G) in accordance with the weather condition when you take the pictures. Take up the object through the view finder after having caught the motive desired. Press smoothly on the shutterlever (H), thus releasing the shutter.

When releasing the shutter, keep the camera tightly pressed against your cheek or preferably hold the camera on platform.

### HOW TO UNLOAD THE CAMERA :

After 10 pictures have been taken, wind the film until it disappears from the film window. Open the camera. Protect the full spool from glaring light. Close the exposed film spool tightly by fastening adhesive tape, which is left on the empty spool. Remove the spool by slightly raising the film winding knob (D).

Shift empty film spool and shut the camera.

### TECHNICAL DETAILS :

This camera takes needle-sharp pictures at a distance of 1 meter to infinite from the object. The maximum clearness will be obtained at a distance between 2 and 5 meters from the object. According to the sharpness of the photograph, the best enlargement will be of the size of 6 x 6cm.

You can get clear pictures in the sunlight, but never face the lens to the sunlight when taking pictures.

Always load and unload the camera indoors or in shade. Do not forget to wind the film to the next number after you have taken a picture, thus you can prevent double exposure.

**KAMBAYASHI & CO., LTD.**

3-10, 3-chome Hatanodai, Shinagawa-ku,  
TOKYO, JAPAN

## "KENT" MINIATURE CAMERA

Lens: Single meniscus, fixed focus.

Shutter: I (1/25) & B (Bulb).

Takes 10 pictures of 14mm×14mm on "KENT" rollfilm.

Camera Size: 55mm×30mm×30mm.

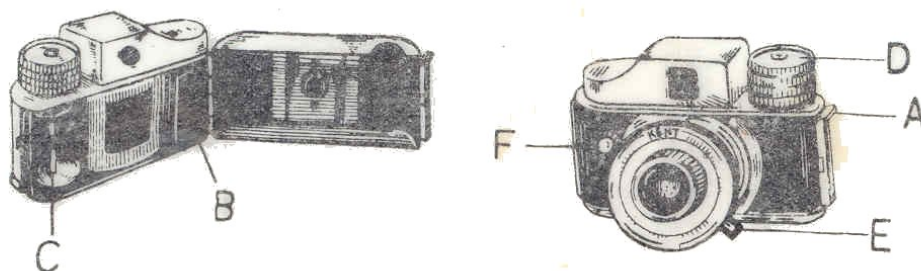
Pigskin carrying case is available.

### HOW TO USE

To take a picture, center the object in view-finder and snap the shutter.

#### **Loading Film**

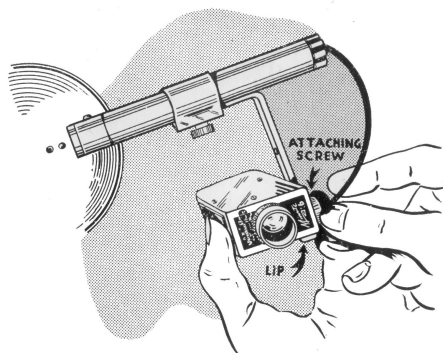
- 1) Release the Back Lid Lock by pulling up the Lock (A) and open the Back Lid.
  - 2) Insert the film into Film Holder (B).
  - 3) Draw out the film about 2" and insert the end of it into the slit of Take-Up Spool (C).
  - 4) Turn the Film Winding Knob (D) a little to ensure the film is wound properly.
  - 5) Close the Back Lid and wind the Film Winding Knob while peeping the window on the Back Lid until numeral "1" appears.
- Now the camera is ready for the first picture taking.



#### **For Snap Shot**

- 1) Shutter (F) is to be operated by adjusting Button (E) in 2 different speeds. ie. I & B  
Subject in sunlight ..... Use I  
Subject in shade ..... Use B

**BE SURE TO HOLD THE CAMERA OR REST THE CAMERA ON PLATFORM SO AS TO PREVENT SHAKING WHILE TAKING PICTURES**



The unit is rigidly attached to the camera, at the camera tripod socket. To attach the Unit to the camera, position the Flash Unit Camera Bracket over the tripod socket of the camera, with the camera side against the lip at the end of the bracket, and tighten the attaching screw. This operation also completes the electrical connection between the shutter and the flash unit.

**YOU ARE NOW READY FOR  
SYNCHRONIZED-FLASH  
PHOTOGRAPHY**

4

To take a photoflash photograph, insert a bayonet-base photoflash lamp of the proper type (the correct "type" lamps to use are listed below) in the lamp socket of the Battery Case. THE LAMP SHOULD BE INSERTED AFTER THE UNIT HAS BEEN ATTACHED TO THE CAMERA—NOT BEFORE, OR IT MAY FLASH WHEN THE CAMERA AND FLASH UNIT ARE ATTACHED. Be certain that it is properly seated and that the Reflector is centered behind it. Adjust the lens aperture of the camera, and take the photograph in the usual way.

After the photograph has been taken, the used lamp may be ejected by turning the Ejector Lever located on the collar under the lamp socket (see page 2).

**IMPORTANT:** The Built-In Flash Synchronization mechanism of your MINUTE-16 is adjusted for lamps which reach peak illumination in 20 milliseconds. The following lamps should be used:

|                              |                   |                            |
|------------------------------|-------------------|----------------------------|
| General Electric<br>Sylvania | No. 5<br>Press 25 | } Use with UNI-PAN film.   |
| General Electric<br>Sylvania | No. 5B<br>No. 25B |                            |
|                              |                   | } Use with UNI-COLOR film. |

Do not attempt to use type "S M" or "S F" photoflash lamps. These are "prime" loaded lamps—designed and constructed so that peak illumination is reached in 5 milliseconds.

### UNIVERSAL CAMERA CORPORATION

28 West 23rd Street  
New York 10, N. Y.

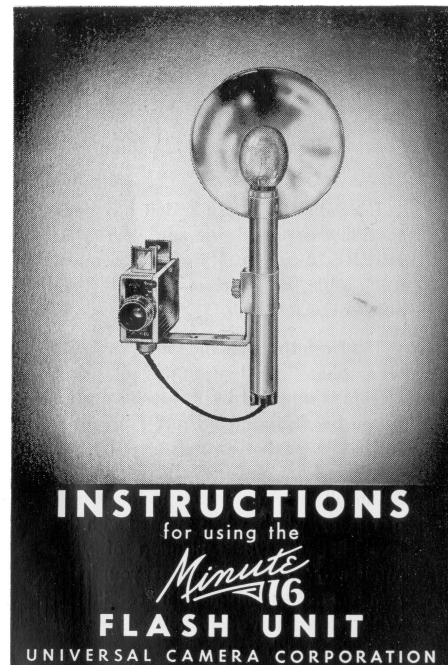
330 South Wells Street  
Chicago 6, Ill.

5910 Sunset Blvd.  
Hollywood 28, Calif.

T1517-1049-TP

5

Printed in U.S.A.



## INSTRUCTIONS

for using the

*Minute*  
16

**FLASH UNIT**

UNIVERSAL CAMERA CORPORATION



# **Gebrauchsanweisung für die Homer Miniatür Kameras**

Benutzen Sie für die Homer Kameras Rollfilme, 10 Aufnahmen 14×14 mm.

## **Wie der Film einzulegen ist :**

Entfernen Sie die Rückseite der Kamera durch Hochziehen der Rasterungen. Nehmen Sie den Filmhalter aus der Kamera. Stecken Sie den vollen Film in diese Filmhalterung und legen Sie diese dann in die Kamera.

Ziehen Sie den Klebstreifen vom Film ab und ziehen Sie den Film soweit ab, daß der Filmanfang in die Transportspule eingesetzt werden kann. Drehen Sie dann den Filmtransportknopf in Pfeilrichtung bis sich der Film richtig angelegt hat. Schließen Sie dann den Deckel und drehen Sie am Filmtransportknopf bis die Ziffer 1 erscheint, im roten Filmfenster auf der Rückseite. Die Kamera ist nun für das Fotografieren bereit.

## **Wie sind die Bilder zu machen :**

Suchen Sie das Objekt im Sucher und nachdem Sie das gewünschte Motiv gefunden haben drücken Sie auf den Auslöser rechts. Wenn Sie den Auslöser drücken drücken Sie bitte die Kamera fest an Ihre Wange oder halten Sie die Kamera fest auf einer Unterlage, um Verwackeln zu vermeiden.

Belichtungszeit 1/25 Sekunde.

## **Wie ist der Film herauszunehmen :**

Nachdem Sie die 10 Aufnahmen gemacht haben drehen Sie am Transportknopf solange, bis der Film verschwindet im roten Fenster auf der Rückseite. Öffnen Sie dann die Kamera. Schützen Sie die volle Spule vor Sonnenlicht. Kleben Sie den vollen Film wieder mit dem Klebeband zu. Heben Sie etwas den Transportknopf, dann lässt sich die volle Spule entfernen. Setzen Sie dann die leere Filmspule vorne wieder ein.

Schließen Sie die Kamera.

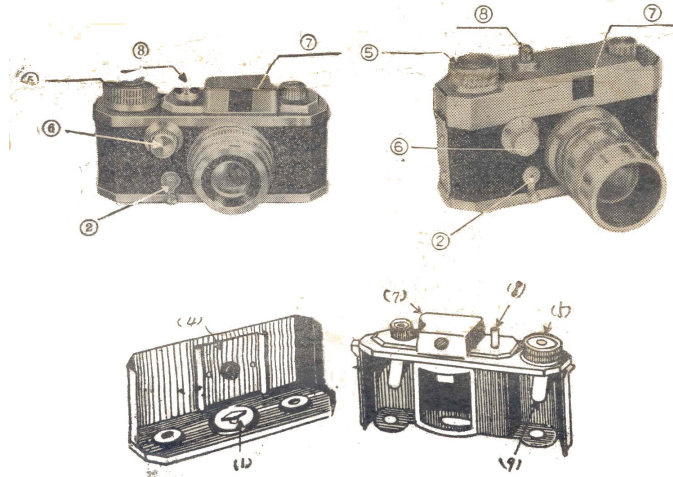
## **Technische Daten :**

Die Kamera zeichnet scharfe Bilder von einer Entfernung von 1 m bis unendlich. Die größte Schärfe wird erzielt auf eine Entfernung zwischen 2 und 3 m vom Objekt. Entsprechend der Schärfe auf den Negativen ist die beste Größe für die Abzüge 4×4 oder 6×6 cm. Sie erzielen bei Sonnenlicht schärfere Bilder, aber halten Sie niemals die Kamera direkt gegen die Sonne.

Blenden: kleine für Sonne, große für bewölkt.

# INSTRUCTION

- (1) Bottom Lid Screw.
- (2) Shutter Set Lever.
- (3) Spool Holding Spring. (Horizontal)
- (4) Film Counting window.
- (5) Film Winding Knob.
- (6) Shutter Adjusting Knob.
- (7) Finder Lens.
- (8) Shutter Release Button.
- (9) Spool Holding Spring (Vertical)



## HOW TO LOAD FILM

- a) Remove Back Lid by turning Bottom Lid Screw (1) so that red spot comes in front of O and take out the Take-up Spool.
- b) Remove tape from film and pull out the end of lid paper. Insert the end of lid paper into the Take-up Spool and turn the spool 2 or 3 times so that the lid paper will catch on to the spool. In this operation, hold the film firmly by one hand so that film will not unroll which causes light leakage. Hold spool by one hand and film by other hand and load the film. Make sure that the driving shaft will engage the slit of the Take-up Spool.
- c) Replace Back Lid and turn bottom lid screw (1) so that red spot comes in front of "S".
- d) Look through Film Counting window (4) located on the back of camera and keep on turning Film Winding Knob (5) until film number 1 will appear.

## HOW TO TAKE PICTURE

- a) Adjust the Shutter Adjusting Knob (6) either "I" (instant) or "B" (bulb) depending on the condition.  
Bright Day....."I" (about 1/30th second)  
Dull Day....."B"
- b) Focus the object through the Finder Lens (7).
- c) Lift the shutter Set Lever (2).
- d) Press the Shutter Release Button (8).
- e) Turn the Film Winding Knob until No.2 will appear through the Film Counting Window (4) and with this operation. Picture taking for the second film is now ready. Repeat the same operation until 10 pictures are taken.

## HOW TO UNLOAD FILM

- a) Wind the film completely by turning Winding Knob (5) continuously.
- b) Turn the Bottom Lid Screw (1) so that red spot comes to "O" and remove the lid.
- c) Pull down the spool holding Spring (3) and take out the film. Wrap the tape around the film and seal it. Be sure to wrap the film with thick paper to prevent the light leakage.

**NOTE:** ALWAYS KEEP THE CAMERA STEADY WHILE TAKING THE PICTURE. REST THE CAMERA ON PLATFORM WHEN USING "B" EXPOSURE

## Accessories available for this camera

Yellow Filter inserted in a Hood and cowhide case for same.



**SPECIAL FILM OFFER**

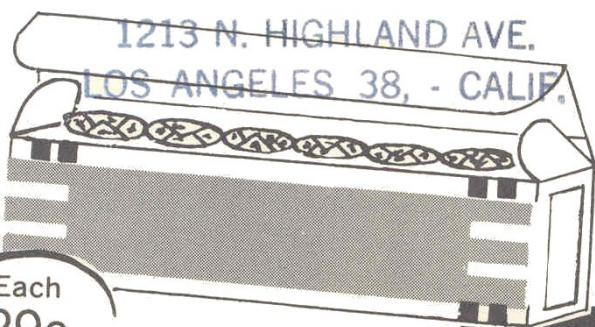
**16mm**

**LENZ PANCHROMATIC FILM**

**CAPITAL T.V. PROD.**

1213 N. HIGHLAND AVE.

LOS ANGELES 38, - CALIF.



Each  
29c

carton of 6 rolls **\$1<sup>50</sup>**

Write to

**LENZ CAMERA IMPORTERS**

**259 South Broadway • Los Angeles 12,  
California**

candid-type

**16** mm

**miniature camera**

genuine imported

**LENZ**

**Model C-16**

• universal focus

• miniscus lens

• adjustable shutter



## CHRISTMAS GIFT OFFER!

**16<sup>mm</sup> LENZ C-16** miniature camera

Lenz Camera Importers, ~~250 South Broadway~~ — Los Angeles 12, California

Gentlemen: please send the lenz 16 mm miniature camera with pigskin leather carrying case and 2 free rolls of film in handsome gift box to the names listed on the reverse side.

my name \_\_\_\_\_

address \_\_\_\_\_

state \_\_\_\_\_ city \_\_\_\_\_

I ENCLOSE: ☐ \$5.00 for 1 Camera ☐ \$10.00 for 2 Cameras

WE PAY POSTAGE . . . send post office money order, express money order, bank draft or check.

**Enter gift orders on reverse side**

## SPECIAL FILM OFFER!

16mm

LENZ PANCHROMATIC FILM

Usually 29c roll  
• 10 exposures •

CARTON OF 6 ROLLS — **\$1.50**

WITH THIS COUPON

Send to:

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

CAPITAL T.V. PROD

1213 N. HIGHLAND AVE.

LOS ANGELES 38, - CALIF.

Send check or money order. We pay postage.

Mail to

LENZ CAMERA IMPORTERS • ~~259 South Broadway~~ • Los Angeles 12, California

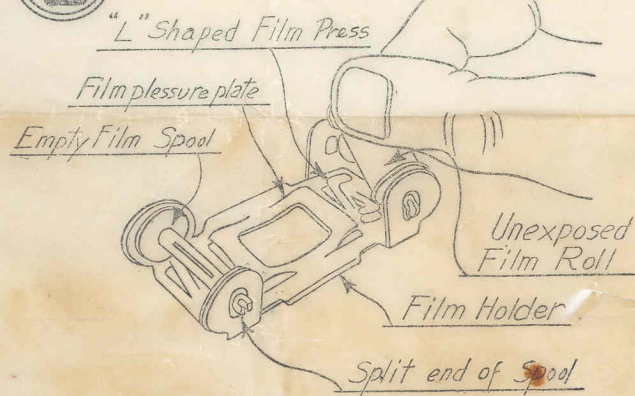
Value  
\$1.74

Value  
\$1.74

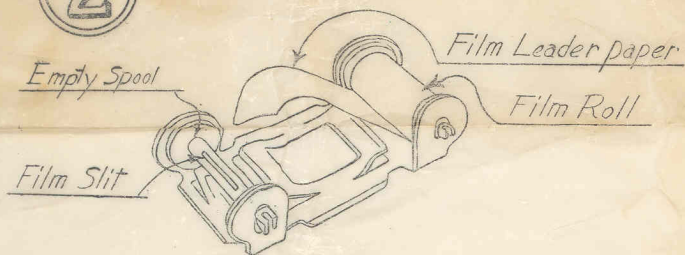


# "KOLT" MINIATURE CAMERA

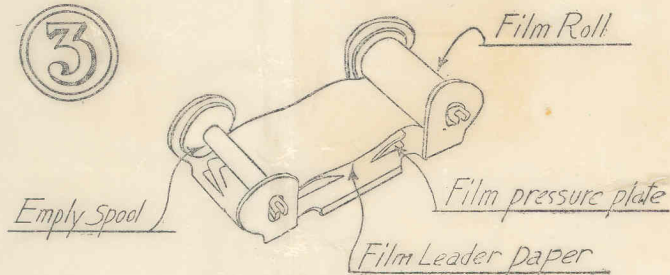
①



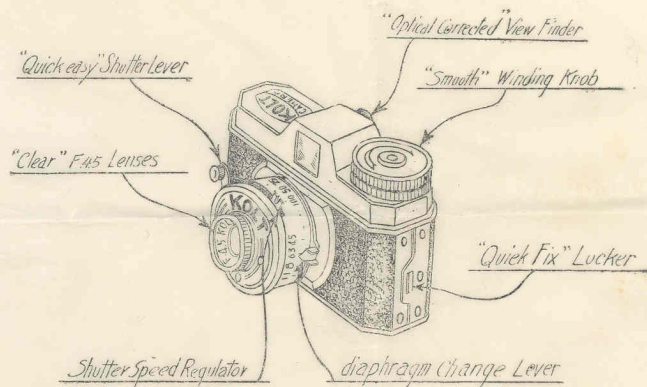
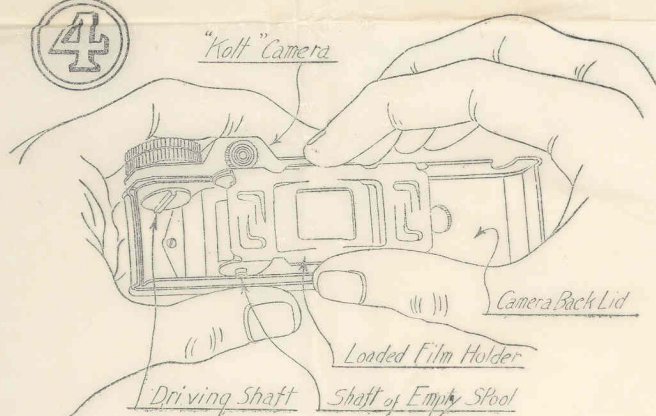
②



③



④



Picture size; 14×14mm, 10 Exposures.  
Lens; F=20mm f/4.5. Anastigmat Lens.  
Shutter; 1/25 1/50 1/100 sec. & Bulb.

## How to Use "Kolt" Film Holder

- (1) Insert empty spool on the winding side of the film holder. Be sure to see that split end of spool is on the proper side. Cut the label off the film and insert it in the holder. If a film is loose in the holder, raise the "L" shaped film press.
- (2) Pull out about two inches of leader paper and insert the end into slit of empty spool.
- (3) Turn empty spool one or two times to roll the leader paper on to the spool.
- (4) After loading the film into the holder, hold middle part of the holder and place it into the camera. Close the back lid gently and turn the winding knob until No. 1 appears on the red window at the back.

Attention: The most important part of miniature camera handling is the film loading. From time of loading, it will be absolutely necessary to handle carefully as mentioned above, in order to obtain good result in picture taking.

# LENZ

## c-16 miniature camera

Enter these gift orders in my name

name \_\_\_\_\_

address \_\_\_\_\_

city \_\_\_\_\_ state \_\_\_\_\_

☐ Send gift card in my name.

name \_\_\_\_\_

address \_\_\_\_\_

city \_\_\_\_\_ state \_\_\_\_\_

☐ Send gift card in my name.

Mail to:

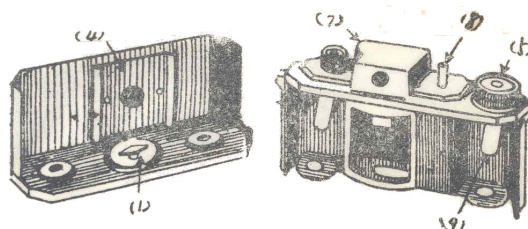
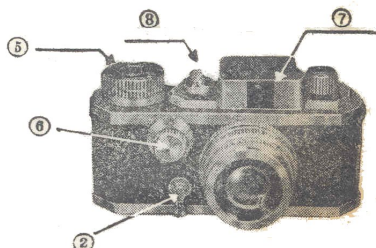
CAPITAL T.V. PROD.  
1213 N. HIGHLAND AVE.  
LOS ANGELES 38, - CALIF.

LENZ CAMERA IMPORTERS • 250 South Broadway, Los Angeles 12, California



# INSTRUCTION

- (1) Bottom Lid Screw.
- (2) Shutter Set Lever
- (3) Spool Holding Spring. (Horizontal)
- (4) Film Counting window.
- (5) Film Winding Knob.
- (6) Shutter Adjusting Knob.
- (7) Finder Lens
- (8) Shutter Release Button
- (9) Spool Holding Spring (Vertical)



## HOW TO LOAD FILM

- a) Remove Back Lid by turning Bottom Lid Screw (1) so that red spot comes in front of O and take out the Take-up Spool.
- b) Remove tape from film and pull out the end of lid paper. insert the end of lid paper into the Take-up Spool and turn the spool 2 or 3 times so that the lid paper will catch on to the spool. In this operation. hold the film firmly by one hand so that film will not unroll which causes light leakage. Hold spool by one hand and film by other hand and load the film. Make sure that the driving shaft will engage the slit of the Take-up Spool.
- c) Replace Back Lid and turn bottom lid screw (1) so that red spot comes in front of "S".
- d) Look through Film Counting window (4) located on the back of camera and keep on turning Film Winding Knob (5) until film number 1 will appear.

## HOW TO TAKE PICTURE

- a) Adjust the Shutter Adjusting Knob (6) either "I" (instant) or "B" (bulb) depending on the condition.  
Bright Day....."I" (about 1/30th second)  
Dull Day....."B"
- b) Focus the object through the Finder Lens (7).
- c) Lift the shutter Set Lever (2).
- d) Press the Shutter Release Button (8).
- e) Turn the Film Winding Knob until No.2 will appear through the Film Counting Window (4) and with this operation. Picture taking for the second film is now ready. Repeat the same operation until 10 pictures are taken.

## HOW TO UNLOAD FILM

- a) Wind the film completely by turning Winding Knob (5) continuously.
- b) Turn the Bottom Lid Screw (1) so that red spot comes to "O" and remove the lid.
- c) Pull down the spool holding Spring (3) and take out the film. Wrap the tape around the film and seal it. Be sure to wrap the film with thick paper to prevent the light leakage.

**NOTE: ALWAYS KEEP THE CAMERA STEADY WHILE TAKING THE PICTURE. REST THE CAMERA ON PLATFORM WHEN USING "B" EXPOSURE**

## Accessories available for this camera

Yellow Filter inserted in a Hood and cowhide case for same.



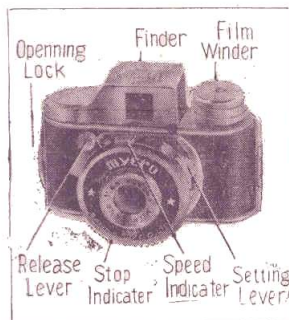
# MYCRO

## The Miniature Roll Film Camera

A really novel all-metal camera, which measures nevertheless only  $2 \times 1\frac{1}{4}$  inches, small and trifling weight fits nicely into the palm of hand. Beauty in design and finish. Its operation is extremely simple, used with delight and ease and it meets every amateur requirements for quick and accurate results. Equipped with f. 4.5 lens of the finest quality giving such perfect definition that can be enlarged to practically postcard size but goes very much further.

Uses Mycro miniature film 14mm a single square, for 10 exposures. It is cheap to make whole series of such charming pictures with the Mycro. Cheap, because a miniature film used.

Shutter is of the special device to ensure the accurate operation and will give instantaneous exposure of  $1/25$  to  $1/100$  a second and 'B' action. With each camera a smart convenient leather case supplied. Thus the Mycro is the ideal universal miniature camera, which finds a ready welcome in the family and for all that is interesting subjects.



## How to use the Mycro Camera

In order to operate the camera correctly, the following directions should carefully be observed.

(1) Push down the left hand knob of the camera and open the back cover.

(2) Insert a new film into the right side spool chamber.

(3) Pull out about one inch of the leading-paper of film and the end of the leading-paper to be inserted into the slot of the left side empty spool. Be sure that the light surface of film (the emulsion side) toward the lens. Spool up some windings turning slowly, assuring that the leading-paper rightly and firmly goes way.



(4) Then shut the cover and turn the winding knob so long until the number "1" appears in the exposure-counter window of the back cover and now ready for shooting.

(5) To take a photograph, push down the setting lever of shutter and get into the object through the view-finder, then press the release lever gently but steadily with the forefinger of the right hand. Any object further than five feet away is always in sharp focus.

(6) After the last number "10" has been used spool up the leading-paper to its end. Open the back cover and take out the film. Paste up the gumpaper to the roll and send it to a Kodak Service. When working toward the bright light, always use Mycro Lenshood to insure clear and bright negative.

SANWA CO., LTD.  
No. 7, 3-Chome, Kyobashi,  
Chuo-Ku, Tokyo.  
Tel. Kyobashi (56) 0920.

# Mycro

# GemFlex



Enlarged to 4 × 4 inches



The original picture  
taken with Gemflex

Miura Trading Co., Ltd.

319 321 Marunouchi Building  
Tokyo

# GemFlex



ACTUAL SIZE



**MIURA TRADING CO., LTD.**

TOKYO, JAPAN.



**Fresh Film & Processing Always Available**

For **YOUR CONVENIENCE** in case your dealer cannot supply, include \$1.25 when you send the enclosed film.

You will receive a new roll of film with the **DEVELOPING** and **PRINTING** of this new roll **PREPAID**.

Through this convenient service you are assured that the finest workmanship and materials will be used in the developing and printing of your **MYCRO** film by **HOLLYWOOD** experts.

All prints from properly exposed negatives enlarged to  $2\frac{1}{2}'' \times 2\frac{1}{2}''$ .

All **MYCRO** film is developed in **FINE GRAIN DEVELOPER** and printed on a specially designed **ELECTRONIC OPTICAL PRINTER** to insure maximum quality.

Pictures will be returned **AIR MAIL**.

---

## **I M P O R T A N T**

**American made du Pont**  
**FILM ENCLOSED--SAVE THIS BAG**  
**P O S T O F I L M S E R V I C E**  
P.O. Box 151, Hollywood 28, Calif.

---

**To order new films and processing.**

---

Enclosed find \$\_\_\_\_\_ to cover cost of \_\_\_\_\_  
rolls of film including **DEVELOPING** and  
**PRINTING**.

**NAME**\_\_\_\_\_

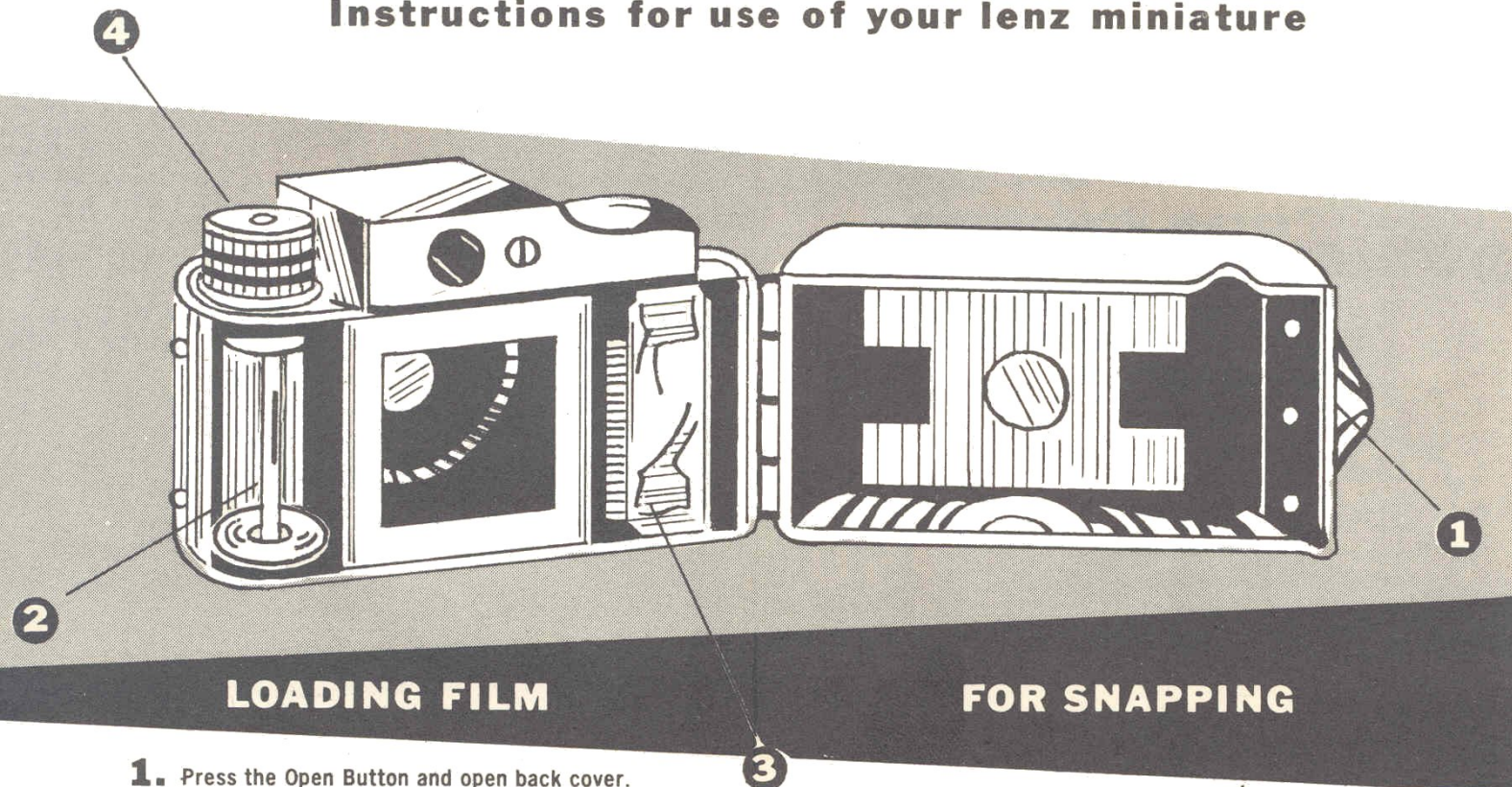
**ADDRESS**\_\_\_\_\_

**STATE**\_\_\_\_\_

Add to your remittance amount of State  
and/or Federal consumers tax if any.



## Instructions for use of your lenz miniature



### LOADING FILM

1. Press the Open Button and open back cover.
2. Remove film cradle, clip to new roll of film. Break seal.
3. Draw leader strip out about 2 inches. Thread leader strip in take-up spool slot. Insert film and cradle in camera.
4. Test tension with winder knob. Close back securely and roll film until numeral "1" appears in red window. Camera is now ready for first picture.

### FOR SNAPPING

Universal shutter speed for all **daylight** pictures requires only that you press shutter with indicator set at Position I

Under adverse lighting conditions such as night-time or indoor shots, move indicator to Position B. Shutter will remain open as long as lever is held down, and will close automatically upon release.



## Enjoy yourself with miniature Camera !

Just center subject in view-finder and snap the shutter.

Equipped as follows :

Lens: Single Fixed Focus.

Shutter: 1 (1/25) & B

Genuine Leather Carrying Case.

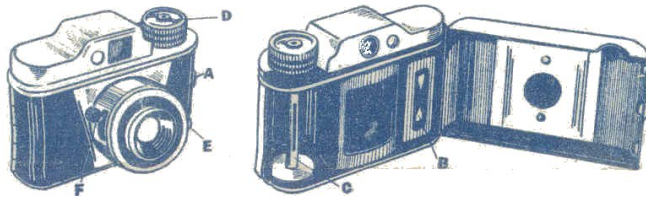
Takes 10 pictures of 14mm×14mm on 16mm Roll Film.

Size of Camera: 55mm×30mm×30mm.

### INSTRUCTION

#### Loading Film

- 1) Press the Opening Button (A) and open the Back Cover.
- 2) Draw out Film Holder (B) to insert the Film Cassette.
- 3) Draw out Film about 2 inches. Turn the winding knob (D) a little to bring the Spring Clip (C) to the center position.
- 4) Peep the window at the back cover and ascertain if the Film will advance smoothly. Camera is now ready for the first exposure.



#### For Snapshots

- 1) Shutter (F) is to be operated by adjusting Button (E) in 2 different speeds ..... 1 & B  
Subject in sunlight ..... Use Shutter 1.  
Subject in shade ..... Use Shutter B.

### IMPORTANT

BE SURE TO HOLD CAMERA STEADY OR  
PREFERABLY REST THE CAMERA ON  
PLATFORM

You can get better picture by taking in the sunlight.

## DEVELOPING AND ENLARGED PRINTS

Send your Rollfims to: Baby Film Photo Lab.  
P.O.Box 73, Gravesend Station, Brooklyn 23, N.Y.

They have specialized machines for this small film.  
The charge is \$ 1.00 dollar (bill or postal check)  
to be sent with each Rollfilm for developing 10  
exposures and retouching if necessary, enlarged  
size 2 1/2x2 1/2. You may send as many Rollfilms  
at a time as you wish.

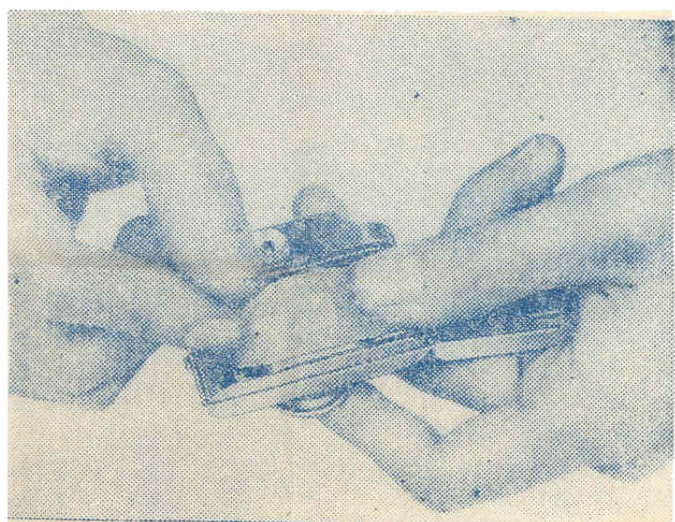
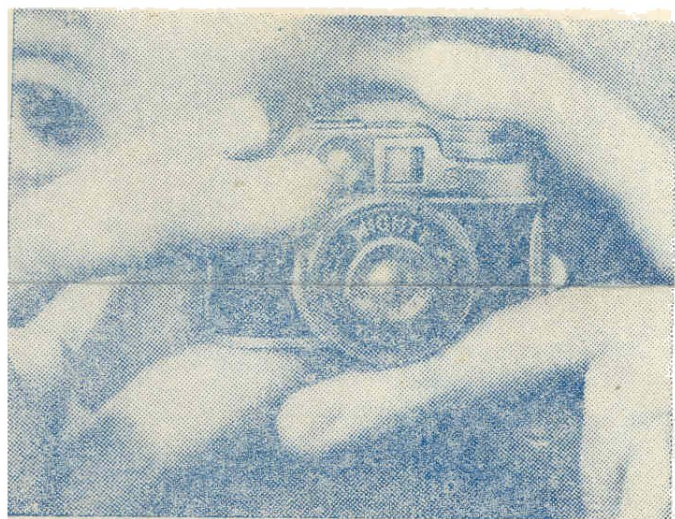
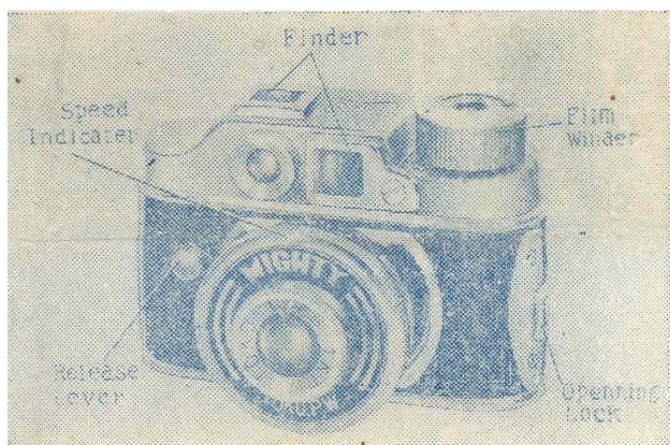
Please wrap Rollfilm with heavy paper and send  
Stamped Self Addressed Envelope, for returning  
pictures and negatives.

Mark your mailing envelope: Use Hand Cancel.

(We are obliged to charge the full remittance  
stipulated regardless of picture result which is  
beyond our control.)



# HOW TO USE THE MIGHTY CAMERA



The MIGHTY is the only midget camera that take lovely pictures easily and sure. Fixed focus makes it always ready to shoot.

- (1) Unlock the left-hand hinge and open the back cover.
- (2) Insert a new film into the right side spool-chamber.
- (3) Unroll about one inch of the leader-paper of film and put its tip into the notch of the left-side empty spool. Wind the knob two or three turns, making it sure that the leader-paper is rightly and flatly goes its way.
- (4) Then shut the back cover and wind the knob slowly, looking into the red peep-hole provided on the back cover, until No. 1 mark of the leader-paper appears. The MIGHTY is now ready for shooting.
- (5) To take a picture, press the release-lever gently but steadily with the forefinger of right hand by keep watching the object through the view-finder.
- (6) As the camera is so small, in order to get good pictures, always keep the camera steady and push down the release-lever most carefully.  
It is recommended to hold the camera as shown in the picture below, when you make snap shots.  
In order to get sharp focused pictures 5 feet distance is recommended for portrait pictures while 20 to 25 feet distance is most suitable for general pictures.
- (7) After the last number (No. 10) has been used up roll up the leader-paper to its end. Open the back cover and take out the film spool. Paste the gummed-paper to the roll and sent it to a KODAK SERVICE.
- (8) If you want to get a brilliant picture when the camera is used against the sun light (or when the bright light strikes upon the lens) always use "MIGHTY YELLOW FILTER" over the lens.

## MIGHTY



**CAUTION!! CAUTION!!**  
**AVOID SPOILED FILM**

- 1.- SAVE this FOIL WRAPPING  
to RE-WRAP EXPOSED FILM.
- 2.- Unwrap this Film Magazine  
(preferably INDOORS) in  
SUBDUED LIGHT (away from  
bright Room lights).
- 3.- VERY IMPORTANT---  
FOR YOUR BENEFIT

This tiny Film requires Exp-  
ert ULTRA Fine-grain Process-  
-ing on specialized Automatic  
Machines plus skillful Negat-  
ive Retouching (when necess-  
ary) FOR SHARP, BRILLIANT  
GRAINLESS ENLARGEMENTS.

Don't take chances! THE ORD-  
INARY PHOTO-FINISHER IS NOT  
EQUIPPED TO DO THIS - and  
with haphazard means will  
often SPOIL the Exposed Film  
Do not give this Film Magaz-  
ine to any Retail Store for  
Processing, regardless of  
what they tell you, BUT SEND  
IT DIRECT TO THE "MYKRO-FINE  
LAB." Box 75, Kensington Sta.  
Bklyn. 18, N.Y. - - in the  
small Mailing Carton it came  
in, together with your PAY-  
MENT FOR PROCESSING IT, as  
listed on enclosed Order Form

## Enjoy yourself with miniature Camera !

Just center subject in view-finder and snap the shutter

Equipped as follows :

Lens : Single Fixed Focus.

Shutter : 1 (1/25) & B

Genuine Leather Carrying Case.

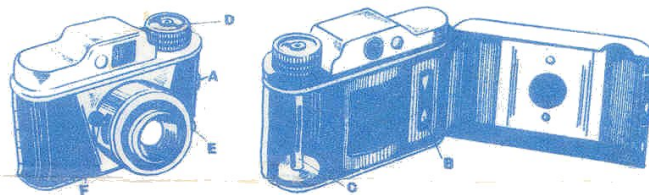
Takes 10 pictures of 14mm×14mm on 16mm Roll Film.

Size of Camera : 55mm×30mm×30mm.

### INSTRUCTION

#### Loading Film

- 1) Press the Opening Button (A) and open the Back Cover.
- 2) Draw out Film Holder (B) to insert the Film Cassette.
- 3) Draw out Film about 2 inches. Turn the winding knob (D) a little to bring the Spring Clip (C) to the center position.
- 4) Peep the window at the back cover and ascertain if the Film will advance smoothly. Camera is now ready for the first exposure.



#### For Snapshots

- 1) Shutter (F) is to be operated by adjusting Button (E) in 2 different speeds ..... 1 & B  
Subject in sunlight ..... Use Shutter 1.  
Subject in shade ..... Use Shutter B.

### IMPORTANT

BE SURE TO HOLD CAMERA STEADY OR  
PREFERABLY REST THE CAMERA ON  
PLATFORM

You can get better picture by taking in the sunlight.

## DEVELOPING AND ENLARGED PRINTS

Send your Rollfims to: Baby Film Photo Lab.  
P.O.Box 73, Gravesend Station, Brooklyn 23, N.Y.  
They have specialized machines for this small film.  
The charge is \$ 1.00 dollar (bill or postal check)  
to be sent with each Rollfilm for developing 10  
exposures and retouching if necessary, enlarged  
size 2 ½x2 ½. You may send as many Rollfilms  
at a time as you wish.

Please wrap Rollfilm with heavy paper and send  
Stamped Self Addressed Envelope, for returning  
pictures and negatives.

Mark your mailing envelope: Use Hand Cancel.

(We are obliged to charge the full remittance  
stipulated regardless of picture result which is  
beyond our control.)

printed in japan



#### LIGHT CONDITIONS

While the settings suggested will serve for most bright outdoor conditions, it is suggested that in cases of extreme brilliance (desert, beaches, etc.) it will be necessary to avoid over-exposure by setting the Stop Indicator at 11 or increasing the Speed Indicator to 100 or both. (1/100 second). In the event of less than normal light (overcast skies, late afternoon, etc.) the Stop Indicator should be set at 6.3 or 4.5. Still more exposure may be had by setting the Speed Indicator at 25. Pictures indoors may be taken by Time Exposure, using the

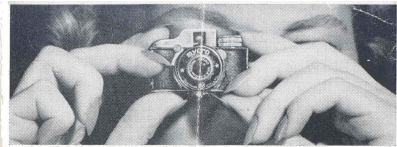
"B" setting on the Speed Indicator. Since the shutter is open as long as the Release Lever is held down, it is necessary to hold the camera firmly on a table or other support to prevent any movement during the exposure. No rule can be given for timing indoor pictures; it is necessary to experiment with the conditions prevailing.

#### Accessories.

Table Tripods.

Lens Hoods with Filters available.

COOPER  
PHOTOGRAPHIC SALES COMPANY  
74 SACRAMENTO STREET  
SAN FRANCISCO 11, CALIFORNIA



The GENUINE  
**Mycro**  
MINIATURE CAMERA

# MYCRO

## eine Kleinstrollfilmcamera

Die MYCRO stellt eine absolut neue Ganzmetall-camera in eleganter Form und Ausführung dar. Sie ist nur 50x32x32 mm groß, sehr leicht und liegt bequem in der Hand. Auf Grund ihrer sehr einfachen Handhabung kann jeder Amateur schnell und leicht schießen und erzielt trotzdem beste Resultate.

Das Objektiv der MYCRO hat eine Lichtstärke von 1:4,5 mit bestem Anflösungsvermögen, wodurch es möglich ist, die Originalbilder ohne Beeinträchtigung auf Postkarten-Format zu vergrößern.

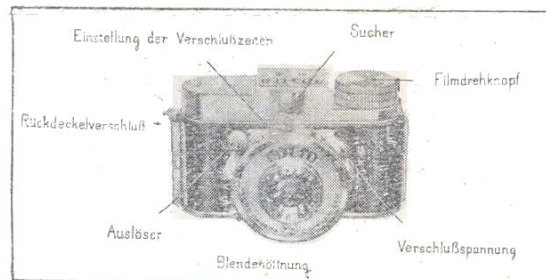
Als Filmmaterial kommt ein 14mm-Rollfilm mit 10 Aufnahmen zur Verwendung. Durch den ungewöhnlich niedrigen Filmpreis wird das Fotografieren zum Vergnügen.

Durch den Spezialverschluß der MYCRO mit Zeiten von B, 1/25, 1/50 und 1/100 sec. ist höchste Scharfe garantiert. Eine nette Leder-Bereitschaftstasche erleichtert Ihnen das Tragen der Camera. Die MYCRO ist eine ideale Allzweck-Miniatur-Camera, die überall in der Welt ihre Freunde gefunden hat.

### Bedienungsanleitung:

Bitte, beachten Sie folgende Punkte, um Fehlerquellen auszuschließen:

1. Drücken Sie mit dem linken Daumen die Feder des Verschlußkopfes ein und öffnen Sie den Rückdeckel.
2. Legen Sie einen unbelichteten Film in die rechte Filmkammer.
3. Ziehen Sie etwa 25mm Filmpapier aus der Spule und fuhren Sie die Papierspitze des Films in den Schlitz der Aufnahmespule in der linken Spulkammer. Versichern Sie sich bitte, daß das grüne Papier des Films zum Rücken der Camera liegt. Dann drehen Sie den Filmtransportknopf vorsichtig, um festzustellen, daß der Film fest auf der Spule sitzt.



4. Schließen Sie den Rückdeckel und drehen Sie den Filmtransportknopf so lange, bis No. 1 im Fenster der Camerarückseite erscheint.
5. Nun ist Ihre Camera fertig zur ersten Aufnahme. Jetzt spannen Sie den Verschluß, indem Sie den Verschlußhebel bis zum Einrasten herunterdrücken und visieren Sie Ihren Aufnahmegegenstand durch den Sucher an. Die Auslösung erfolgt, indem Sie mit dem Zeigefinger der rechten Hand sachte den Verschlußknopf drücken. Die Camera zeichnet scharf für alle Entfernungen von 1,50 m ab.
6. Wenn Sie die letzte Aufnahme des Film geschossen haben, spulen Sie den Film ganz auf und öffnen Sie den Rückdeckel. Die Filmrolle verschließen Sie mit dem gummierten Papier. Sollten Sie bei starker Sonnenbestrahlung arbeiten, empfiehlt es sich immer, die MYCRO-Sonnenschutzblende vorzusetzen, um Lichteinfall zu vermeiden.



## Enjoy yourself with miniature Camera !

Just center subject in view-finder and snap the shutter.

Equipped as follows :

Lens: Single Fixed Focus.

Shutter : I (1/25) & B

Genuine Leather Carrying Case.

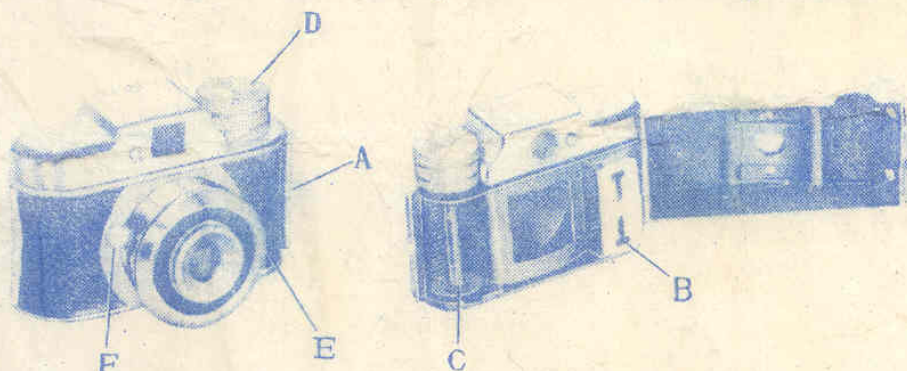
Takes 10 pictures of 14mm×14mm on 16mm Roll Film.

Size of Camera: 55mm×30mm×30mm.

### INSTRUCTION

#### Loading Film

- 1) Press the Opening Button (A) and open the Back Cover.
- 2) Draw out Film Holder (B) to insert the Film Cassette.
- 3) Draw out Film about 2 inches. Turn the winding knob (D) a little to bring the Spring Clip (C) to the center position.
- 4) Peep the window at the back cover and ascertain if the Film will advance smoothly. Camera is now ready for the first exposure.



#### For Snapshots

- 1) Shutter (F) is to be operated by adjusting Button (E) in 2 different speeds ..... 1 & B  
Subject in sunlight ..... Use Shutter 1.  
Subject in shade ..... Use Shutter B.

### IMPORTANT

BE SURE TO HOLD CAMERA STEADY OR  
PREFERABLY REST THE CAMERA ON  
PLATFORM.

You can get better picture by taking in the sunlight.

**Please FILL OUT BOTH of these LABELS CAREFULLY**  
(Return Label):-

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

(Laboratory Control Label):-

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

### CAUTION! AVOID SPOILED FILM!:-

THE ORDINARY PHOTO-FINISHER IS NOT EQUIPPED TO GIVE THIS TINY FILM the Special Developing Formulas, the Specialized Automatic Machine handling or Retouching (if necessary) for Grain-less Brilliant ENLARGEMENTS -Don't take chances! Do not give this Film to the Retail Store, but send it DIRECT TO "MYKRO-FINE" LAB. Box 75, Kensington Sta., Bklyn., N.Y.

A.- If you wish your finished Pictures returned by fast AIR MAIL - paste ONE CORNER of a 6¢ Air Mail or 2 - 3¢ Stamps on BACK of this Label Form.  
B.- IF your local Retail Stores cannot supply you; you can Order FILM MAGAZINES DIRECT from us. The "Mykro-Fine" COLOR FILM is only 85¢ each - the B & W FILM only 75¢ each.

MAILING EXPOSED FILM MAGAZINE FOR PROCESSING. (Read Carefully)

### FOLLOW THIS SIMPLE PROCEDURE:

1.-Remove Film Magazine from Camera in subdued light indoors. Quickly and thoroughly wrap it in the FOIL it came in -or household Foil or dark opaque Paper.

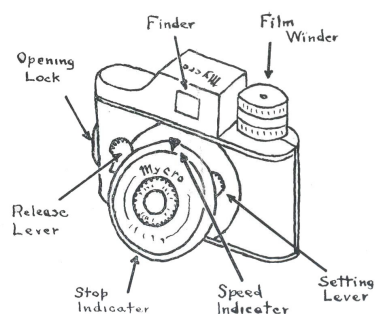
2.-FILL OUT BOTH LABELS Carefully on the Left Side of this Circular.

Write your FILM MAGAZINE Requirements ON BACK of the Label FORM - and include Payment in the Mailing Box.  
3.- Cut off this LABEL FORM on dotted line. Fold a \$1.00 BILL (Processing Payment) -lengthwise and wrap it tightly around Film Magazine; and on top of that, wrap the Label Form. Do not send Checks or Money Orders, cash always reaches us safely. Use a Rubber Band or String (no scotch tape) to hold this bundle together and carefully insert it in small Mailing Box it came in. Use enclosed Gummed Stickers to seal BOTH ENDS of Box, but be sure Sticker does not cover up part of Address.

### PROCESSING CHARGES:

Your \$1.00 BILL pays for 14 ENLARGED PRINTS (Wallet Size) 2 1/4" x 3 1/4" at the very low price of only 5¢ each - (14 x 5¢ = 70¢) PLUS Ultra Fine-grain Developing of Film, Expert Negative Retouching (at our discretion) and return 1st Class Postage Paid- (30¢) -TOTAL \$1.00. All Exposures Count at this very low price. Entire job is done; no Developing of Film alone or Enlargements made from Film developed (usually spoiled) by someone else. Entire Film Magazine must be sent to us. YOU WILL RECEIVE AN ORDER FORM FOR REPRINTS that you desire -as low as 5¢ each (total of 20 for \$1.) or only 7¢ each (total of 10 to 20 Reprints).





#### TO LOAD CAMERA

Open back of camera by releasing catch at the end opposite the hinge. Place empty spool in the chamber next to the hinge, engaging the slotted end of the spool with the winding knob. Break seal on film, being careful to prevent it from loosening or unrolling from the spool. Insert roll onto holder in other chamber. Turn winding knob to bring longest slot toward you. Insert pointed end of film paper through slot in empty spool and wind two or three turns to secure it firmly. Close and latch camera back. Pull back slide covering film counting window

and turn knob until the figure 1 appears. Close slide to protect film. The camera is now ready for the first picture.

#### TO TAKE PICTURES

Set the Speed Indicator at the desired speed. 50 (or 1/50 second) will probably be about right for bright outdoors. Set the Stop Indicator. Number 8 will probably suit bright outdoor conditions. Cock the shutter by pressing down the Setting Lever. Holding the camera firmly against the face, frame the picture you wish to take in the viewfinder and slowly press the

release lever. Like any camera, any movement of the camera or jerkiness in pressing the release lever will result in a spoiled picture. All objects five feet or more from the camera are in sharp focus.

Open the film window slide and advance the film to the next number. Again cock the shutter and make the next exposure. When 10 pictures have been taken, turn the winding knob until all of the paper filmcover has passed the film window. Open the back, remove film and secure from loosening or unrolling with the paper sticker or a rubber band.

Developing and Enlarged Prints:

Send your Rollfilms to SMALL FILM PHOTO LAB., P. O. Box H-75, Kensington, Brooklyn 18, N. Y. They have specialized Automatic Machines for this tiny Film. The charge is only 7¢ each Enlarged Wallet-Size Print,  $2\frac{1}{2}'' \times 2\frac{1}{2}''$  (actual picture size) - times 10 Exposures equals 70¢ plus 30¢ for Ultra-Fine Developing of Film and Retouching (if necessary). Send total of \$ 1.00 with EACH Rollfilm (and as many Rollfilms at a time, as you wish). Send CASH (\$ 1.00 Bills) or add 20¢ bank exchange charge to checks and Money Orders. Mark your Mailing Envelope in big letter near Stamp - "USE HAND CANCEL".



## Enjoy yourself with miniature Camera !

Just center subject in view-finder and snap the shutter.

Equipped as follows :

Lens: Single Fixed Focus.

Shutter: I (1/25) & B

Genuine Leather Carrying Case

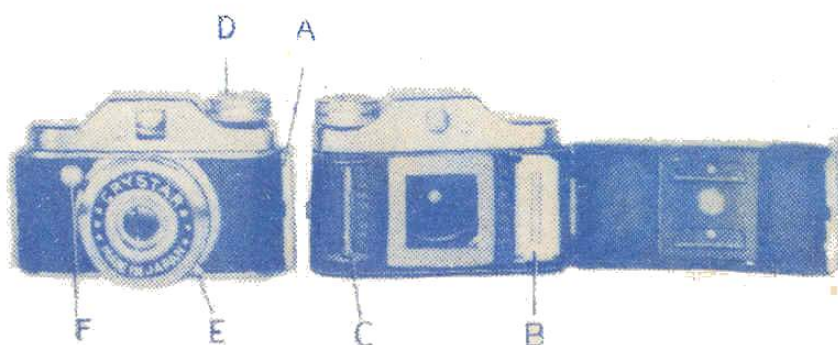
Takes 10 pictures of 14mm×14mm on 16mm Roll Film.

Size of Camera: 55mm×30mm×30mm.

### INSTRUCTION

#### Loading Film

- 1) Press the Opening Button (A) and open the Back Cover.
- 2) Draw out Film Holder (B) to insert the Film Cassette.
- 3) Draw out Film about 2 inches. Turn the winding knob (D) a little to bring the Spring Clip (C) to the center position.
- 4) Peep the window at the back cover and ascertain if the Film will advance smoothly. Camera is now ready for the first exposure.



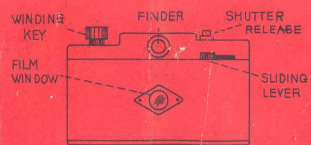
#### For Snapshots

- 1) Shutter (F) is to be operated by adjusting Button (E) in 2 different speeds ..... 1 & B  
Subject in sunlight ..... Use Shutter 1.  
Subject in shade ..... Use Shutter B.

### IMPORTANT

BE SURE TO HOLD CAMERA STEADY OR  
PREFERABLY REST THE CAMERA ON  
PLATFORM

You can get better picture by taking in the sunlight.



#### TO UNLOAD:

When number 10 appears on film window and picture is snapped, you have reached the end of the film roll. Wind the balance of the film by turning the winding key until film can no longer be seen through the film window. Raise winding key to release back cover, open and remove exposed film. Wind film with gummed paper on end of film.

Remove empty spool from film rack and place it in winding rack. Camera is now ready for new film.

# Snappy



14mm  
CAMERA



# World's smallest twinlens reflex type camera

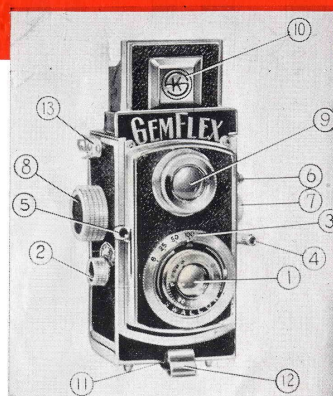


Fig. 1.



Fig. 2.

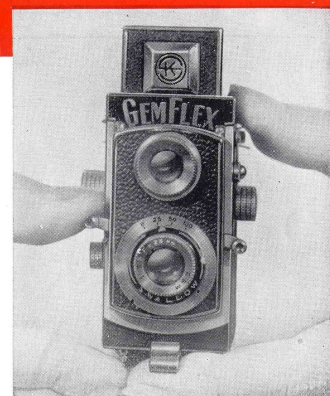


Fig. 3.

## GEMFLEX

The Queen of Miniature Cameras  
(Use 14mm Roll Film)

### PRINCIPAL PARTS

1. Picture Lens
2. Knob for Diaphragm,
3. Shutter Speed Markings,
4. Shutter Set-lever,
5. Shutter Release-Lever,
6. Finder Hood Release,
7. Film Knob,
8. Film Winding Knob,
9. Finder Lens,
10. Finder Hood,
11. Tripod Bush,
12. Back Cover Latch,
13. Strap Mounts,
14. Red Window. (in back of camera)

### Loading the Film

Open the camera by pushing back the cover latch (12). Lift up the film Knob (7) slightly and place film in the spool chamber at the bottom side of the camera. Then pull out one or two inches of film leader as shown in Fig. 2, and insert its end into slotted portion of take up spool in other chamber. The take up spool will easily be adjusted by pulling up the film Knob (7). Before closing the camera, turn the film winding Knob (8) slightly to make it sure that the film advances smoothly.

### Operating Instructions

After the film is loaded, close the cover tight, and then give a few more turns to the winding knob (8) until film "No. 1" appears through the red window (14). Now the camera is ready for shooting.

In taking pictures, the following 3 points should be remembered:

- a) Open focusing hood (10) by pressing the finder hood release button (6) on side. Then look into the hood and set the image you are photographing in right position on the ground glass.
- b) Set right aperture by turning knob for diaphragm (2) according to the brightness of the day.
- c) Shutter speed markings (3) also should be adjusted to the clearness of the day as well as to the still or moving object you are photographing.

When these points are ready, hold the camera firmly in manner as illustrated in Fig. 3, and press down shutter release-lever. The picture is now snapped.

In order to take good pictures, the distance between the camera and the object should be from 8 to 10 feet. Inanimate objects can well be taken at a distance of about 20 to 25 feet.

When aperture is set at 8, any object 3 feet away from the camera or at infinity, can be focused most clearly.

Of all the miniature cameras now manufactured in Japan, none can surpass the Gemflex, a twin-lens camera, for its convenience, smartness and simplicity. Made of shatter-proof die cast duralumin covered in black grained high quality leatherette and trimmed smartly with glowing chrome plate the Gemflex can really claim to be the finest even among the most discriminating photographers who demand appearance, quality and mechanical accuracy.

Picture taking lens is the Gem Anastigmat f/3.5 lens with 25mm focal length. "Swallow" Shutter has a speed range of 1/25, 1/50, and 1/100 second plus bulb. Having fixed focus, no worry about adjusting focal distance. It is provided with tripod socket, strap mounts and ever-ready leather carrying case with a short strap. With the Gemflex you can see the picture full negative size in the ground glass screen while you are composing and snapping the picture. It is really a fun to take pictures with the GEMFLEX

## Enjoy yourself with miniature Camera !

Just center subject in view-finder and snap the shutter.

Equipped as follows :

Lens: Single Fixed Focus.

Shutter: 1 (1/25) & B

Genuine Leather Carrying Case.

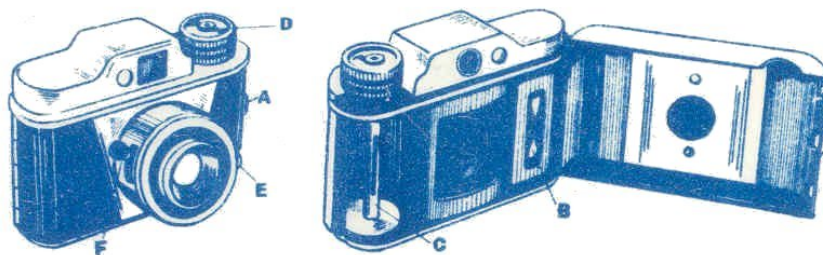
Takes 10 pictures of 14mm×14mm on 16mm Roll Film.

Size of Camera: 55mm×30mm×30mm.

### INSTRUCTION

#### Loading Film

- 1) Press the Opening Button (A) and open the Back Cover.
- 2) Draw out Film Holder (B) to insert the Film Cassette.
- 3) Draw out Film about 2 inches. Turn the winding knob (D) a little to bring the Spring Clip (C) to the center position.
- 4) Peep the window at the back cover and ascertain if the Film will advance smoothly. Camera is now ready for the first exposure.



#### For Snapshots

- 1) Shutter (F) is to be operated by adjusting Button (E) in 2 different speeds ..... 1 & B  
Subject in sunlight ..... Use Shutter 1.  
Subject in shade ..... Use Shutter B.

### IMPORTANT

BE SURE TO HOLD CAMERA STEADY OR  
PREFERABLY REST THE CAMERA ON  
PLATFORM

You can get better picture by taking in the sunlight.



THIS IS YOUR INVOICE

WAB. 3612

WE DELIVER

# GOOD HOUSEKEEPING SHOPPE

(Formerly NU-ENAMEL Kentucky)

Paints

Linoleums

Window Shades

Jewelry  
Electrical  
Appliances207 SOUTH FOURTH STREET  
LOUISVILLE 2, KY.Customer's  
Order No.

Date

8-25-1948

M.

Wm R. Gestrich

Address

241 Wagner Rd.

Sold by

Cash

C. O. D.

Charge

On Acct.

Mdse.  
Retd.

Paid Out

Morgantown W. Va.

Quan.

DESCRIPTION

Price

Amount

Long Camera

9.95

Postage

2.50

10.20

Pd.

ALL claims and returned goods MUST be accompanied by this bill

B 9637

Rec'd by

THE EGRY REGISTER CO. DAYTON, O.

Form 465



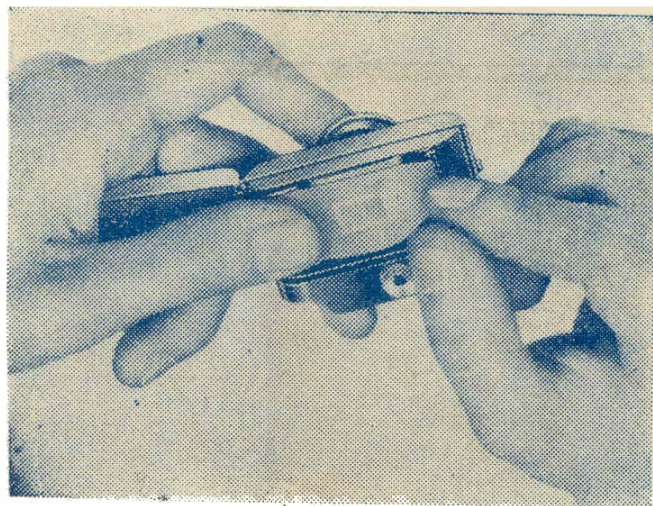
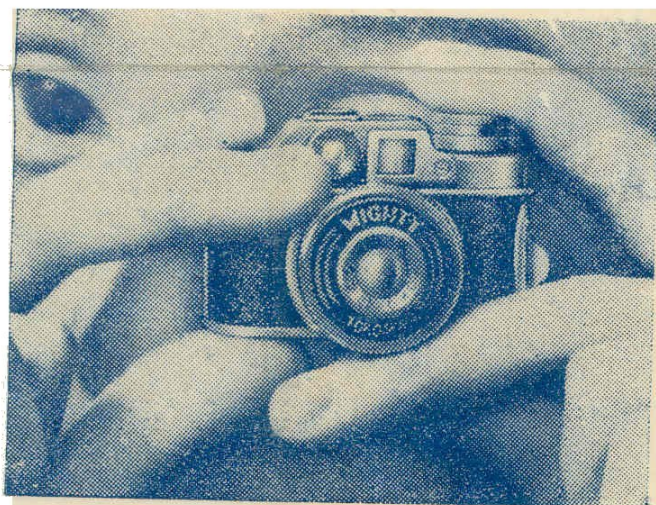
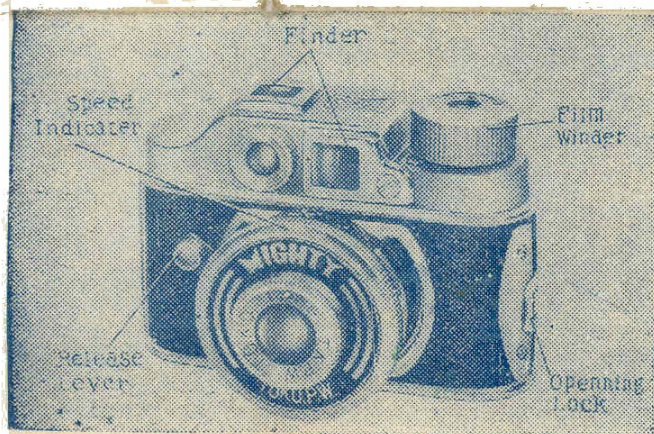
# "MIGHTY" MINIATURE CAMERA

## DIRECTION FOR USE

Equipped with  $f=23\frac{7}{8}$  , Fl: 4.5 Lens, TOKO.

Adjustable diaphragm, F/4.5, 6. 3 aud 8.

Shutter Speed of B and I ( $\frac{1}{30}$  sec.)

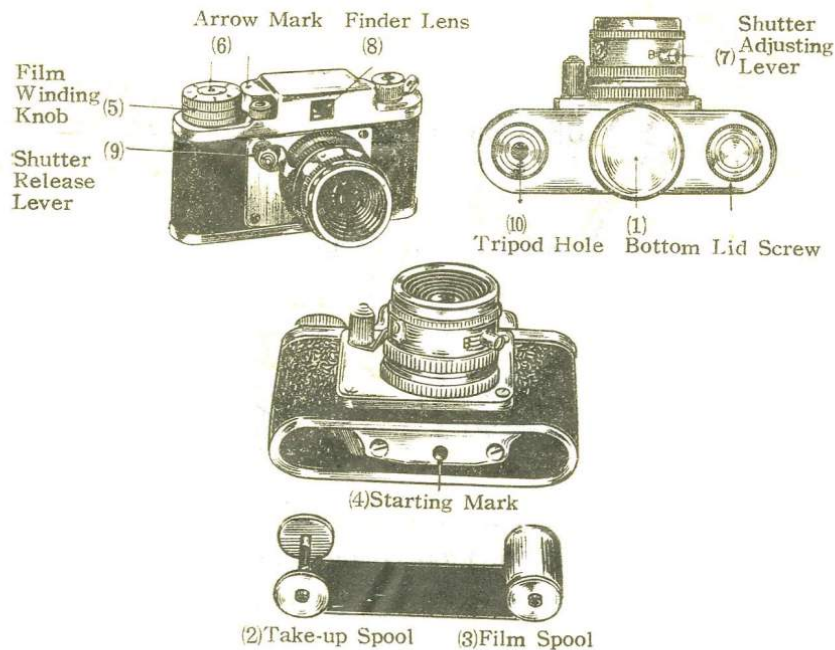


The MIGHTY is the only midget camera that takes lovely pictures easily and surely. Fixed focus makes it always ready to shoot.

- (1) Unlock the left-hand hinge and open the back cover.
- (2) Insert a new film into the right side spool-chamber.
- (3) Unroll about one inch of the leader-paper of film and put its tip into the notch of the left-side empty spool. Wind the knob two or three turns, making it sure that the leader-paper is rightly and flatly goes its way.
- (4) Then shut the back cover and wind the knob slowly, looking into the red peep-hole provided on the back cover, until No. 1 mark of the leader-paper appears. The MIGHTY is now ready for shooting.
- (5) To take a picture, press the release-lever gently but steadily with the forefinger of right hand: keep watching the object through the view-finder.
- (6) As the camera is so small, in order to get good pictures, always keep the camera steady and push down the release-lever most carefully. It is recommended to hold the camera as shown in the picture below, when you make snap shots. In order to get sharp focused pictures 5 feet distance is recommended for portrait pictures: while 20 to 25 feet distance is most suitable for view pictures.
- (7) After the last number (No. 10) has been used up, roll up the leader-paper to its end. Open the back cover and take out the film spool. Paste the gummed-paper to the roll and sent it to a KO-DAK SERVICE.



# INSTRUCTION



## HOW TO LOAD FILM

- Remove Back Lid by turning Bottom Lid Screw (1) and take out the Take-up Spool (2).
- Remove tape from film and draw out the end of lid paper (3). Insert the end of lid paper into the Take-up Spool and turn the spool 2 or 3 times so that the lid paper will catch on the spool. In this operation, hold the film (3) firmly by one hand so that film will not unroll which causes light leakage. Adjust the lid paper so that the Starting Mark (4) and the line drawn on the lid paper coincide. Hold spool by one hand and film by other hand and load film. Make sure that the driving shaft will engage the slit of the Take-up Spool.
- Replace Back Lid and Bottom Lid Screw (1).
- Turn Film Winding Knob (5) five times and set the Winding Knob so that number 1 will coincide with the Arrow Mark (6). Now the first film is ready for picture taking.

## HOW TO TAKE PICTURE

- Adjust the Shutter Adjusting Lever (7) either "I" (instant) or "B" (bulb) depending on the condition.
  - Bright Day ..... "I" (about 1/25th second)
  - Dull Day ..... "B"
- Focus the object through the Finder Lens (8).
- Press the Shutter Release Lever (9).
- Turn the Film Winding Knob until number 2 will coincide with the Arrow Mark and with this operation, picture taking for the second film is now ready. Repeat the same operations until 10 pictures are taken.

Remark : Use filter in glittering sunlight.

Always use Lens Hood for better picture.

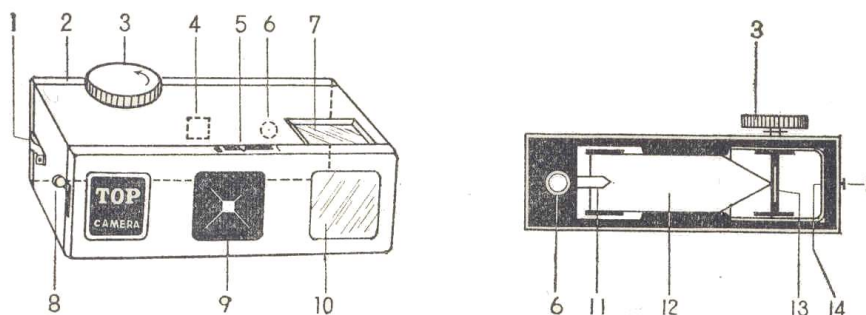
## HOW TO UNLOAD FILM

- Wind the film completely on the spool (2) by turning Winding Knob (5) continuously.
- Remove Bottom Lid Screw (1) and remove the lid.
- Hold the camera with bottom downwards and tap gently and pull out the film. Wrap the tape around the film and seal it. Be sure to wrap the film with thick paper to prevent the light leakage.

NOTE : ALWAYS KEEP THE CAMERA STEADY WHILE

# ENJOY WITH TOP CAMERA

## INSTRUCTION SHEETS



### HOW TO LOAD THE FILM

1. By pushing the Lock of Back Lid (1), remove the back lid.
2. Place the Take-up Spool (13) in position. In this operation, you can easily place Take-up Spool by lifting up the Film Winding Knob (3).
3. Insert the film into film chamber, then draw out the end of Leader Paper (12) and insert it into the slit of Take-up Spool (13). Turn the Film Winding Knob twice or thrice towards the direction of arrow, to ensure that the film is wound properly.
4. Replace the back lid. In this operation, you must take care to place the finder side (left side) of the back lid firstly, then place the lock side (right side).
5. Turn the Film Winding Knob gently until numeral "1" will appear through Film Counting Window (4).
6. Now, the camera is ready for the first exposure.

### HOW TO TAKE PICTURES

1. In order to take good pictures, it is essential for you to catch the subject which should be faced to the light.
2. Catch the subject through View Finder (6 & 10) and press down Shutter Release Lever (8) gently. Be sure to **hold camera steady** in this operation and it is preferable to rest camera on some platform.
3. For subjects in sunlight or bright scenery, use shutter of "I" (Instant). For subjects in shade or dark, please use shutter of "B" (Bulb). As it is equipped with Shutter Adjusting Lever (5), so you can choose either "I" or "B" according to the weather or brightness of subjects.
4. In case the camera is rested on the platform, you can catch the subjects through Reflecting Finder (7).
5. After taking pictures, turn the Film Winding Knob (3) until next numeral will appear. Repeat the same operation until the whole film is exposed.

### UNLOADING THE FILM

1. Turn the Film Winding Knob until the film is wound completely, then remove the back lid.
2. Take out the exposed film, together with Film Cassette (15) and seal it tightly to prevent light leaks in.

**NOTE:** It is preferable to put the camera always in vinyl case to prevent light leaks in while the film is loaded.

Sole Distributor in U. S. A. and CANADA

**TAK-AIR SALES COMPANY**  
175 - 7th Street,  
San Francisco 3, Calif., U. S. A.  
Cable Address : WHITEY

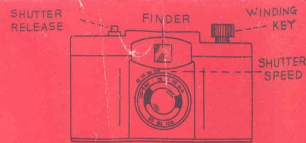
Printed in Japan



Directions for Operating  
THE  
SNAPPY 14 MM.  
CAMERA

FEATURES:

|                     |                          |
|---------------------|--------------------------|
| LENS                | Optor f 3.5 25 mm.       |
| DIAPHRAGM OPENING   | f 3.5 to f 16.           |
| FOCAL PLANE SHUTTER | Bulb, 1/25, 1/50, 1/100. |
| SHUTTER RELEASE     | Body Type.               |
| VIEW FINDER         | Eye Level.               |
| FILM SIZE           | 14 mm. 10 exposures.     |
| WEIGHT              | less than 4 ounces.      |



TO MAKE EXPOSURES:

First, set speed of shutter on face of camera to desired speed by placing red dot opposite number.

Set diaphragm opening by placing small red dot opposite desired f stop.

TO LOAD:

Raise film winding key to release back cover. Insert film in empty spool rack, tear leading paper off and insert film in winding spool slot. Turn winding spool one turn to engage film. Close cover, lifting winding key at the same time.

When winding key has returned to its normal position, turn key until 1 appears on the colored window at the back of camera.

Move sliding lever to right and release, cocking the shutter. Focus the camera by looking through the eye-level view finder. Holding the camera as steady as possible, press body release on top of camera.

Note: Avoid movement. Do not place fingers in front of lens. Turn winding key immediately to move film to next number.

## Direction for Use of "TOYOCA ACE" Miniature Camera

Lens: Single miniscus, fixed focus.

Shutter: Instant only (about 1/30 sec.).

Diaphragm: 8 (for shade) and 11 (for bright).

Picture size: 14mm × 14mm.

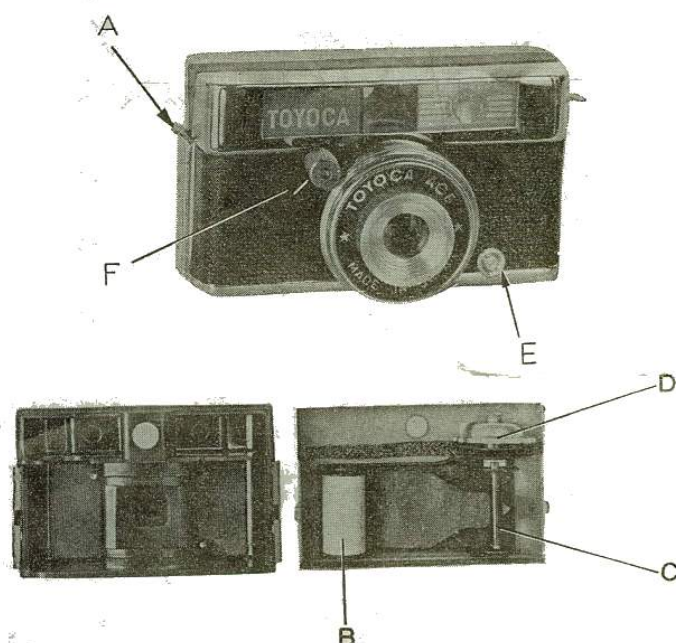
### HOW TO LOAD THE CAMERA :

Release the back-lid-lock by pulling up the lock (A) and take off the back-lid.

Insert an unexposed film-spool (B) in the film-holder. Undo adhesive tape of the film and unroll the film until its tip can be inserted into the slit of the take-up-spool (C).

Turn the film-winding-knob (D) into the direction of arrow which is marked on the back-lid until the film stretches and it winds the film properly.

Close the back-lid and wind the film until figure 1 appears in the film window of the back-lid. The camera is now ready for use.



### HOW TO TAKE PICTURES :

Set the diaphragm by moving the diaphragm set lever (E) on 8 (good in shade) or 11 (good in sunlight) in accordance with the weather condition when you take the pictures.

Take up the object through the view finder after having caught the motive desired. Press smoothly on the shutterlever (F), thus releasing the shutter.

When releasing the shutter, keep the camera tightly pressed against your cheek or preferably hold the camera on platform.

### HOW TO UNLOAD THE CAMERA :

After 10 pictures have been taken, wind the film until it disappears from the film window. Open the camera. Protect the full spool from glaring light. Close the exposed film spool tightly by fastening adhesive tape, which is left on the empty spool. Remove the spool by slightly raising the film winding knob (D). Shift empty film spool and shut the camera.

### TECHNICAL DETAILS :

This camera takes needle-sharp pictures at a distance of 1 meter to infinite from the camera. The maximum clearness will be obtained at a distance between 2 and 5 meters from the camera. According to the sharpness of the photograph, the best enlargement will be of the size of 6 × 6cm.

You can get clear pictures in the sunlight, but never face the lens to the sunlight when taking pictures.

Always load and unload the camera indoors or in shade. Do not forget to wind the film to the next number after you have taken a picture, thus you can prevent double exposure.

Three Stars Trading Co., Ltd.



The **ULTIMATE**  
**ACHIEVEMENT**  
in Sub-Miniature Design . . .

MADE  
IN  
ITALY



\$167/box  
2" wide  
2 1/2" long

The Incredible

## GaMi 16

GaMi Camera of Monza, Italy's world famous manufacturer of subminiature cameras, has introduced a subminiature camera with the features and size of the GaMi 16. Best described as "small and serious," the GaMi 16 features an accurate color, resolution, 20 m. operating range, flash and shutter mounted in a single module design. The camera, made with virtually all the standard found in 135mm for one price only—**\$297.00**—stands.

Here are some special features too!

- Compact, 135mm x 17mm (5.3" x 0.7")
- Green and red LEDs, 1/2" (12mm) wide
- Protected by two lens elements
- 2.8mm f/1.8 lens, 1/2" (12mm) wide
- 1/2" (12mm) wide, 1/2" (12mm) high
- 1/2" (12mm) wide, 1/2" (12mm) high
- 1/2" (12mm) wide, 1/2" (12mm) high
- 1/2" (12mm) wide, 1/2" (12mm) high
- 1/2" (12mm) wide, 1/2" (12mm) high

## The ONLY COMPLETE SYSTEM of Standard 135mm Photography

The versatile **GaMi 16** offers a full line of accessories, including:

The new 4x  
1/4 TELELENS



\$135 each

Spotlight Developing Tank  
Exposure • Doping Bath  
Microscope Adapter  
Spotmeter • Film Cutter  
Frame Viewer • 2x2 Mount  
Flash Attachment  
Filter • Close-up Lens  
Empty Film Cartridges

Write for illustrated literature on the  
GaMi 16 and accessories.

**GAMI CORPORATION**  
488 West Avenue, New York 18, N.Y.



***GaMi 16 mm Subminiature Camera***

Officina d'Arte Grafica A. Lucini e C. - Milano

OFFICINE GALILEO DI MILANO (ITALY) VIALE EGINARDO 29





***GaMi 16 mm Subminiature Camera***

OFFICINE GALILEO DI MILANO (ITALY)

## LIST OF PARTS

Figure 1

- 1 The front cover, when open, is also a strong and comfortable grip and when closed, it reloads the spring mechanism which actuates the film transport and the cocking of the shutter after each shot thus allowing the taking of three photos separately or in rapid sequence.
- 2 The hinge of the front cover.
- 3 The push button for the opening of the cover.
- 4 The release button with standard threaded collar for attachments of the flexible extension, the « autorelease », special synchronizers etc.
- 5 The dial control thumbwheel for shutter speed adjustment coupled to exposuremeter.

- 6 The calibrated dial for shutter speed - (reading from 1/2 second to 1/1000 and B).
- 7 The dial control thumbwheel for lens focussing, coupled to rangefinder.
- 8 The calibrated dial for range, reading from .50 meters to infinity, including depth-of-field indicator related to stop number.
- 9 The « loaded camera » indicator, showing a white sign when camera is loaded and a red sign when camera is unloaded or film is totally exposed.

Figure 2

- 10 The combined front window for the viewer, rangefinder and exposuremeter.

## Speed and Type of Emulsion

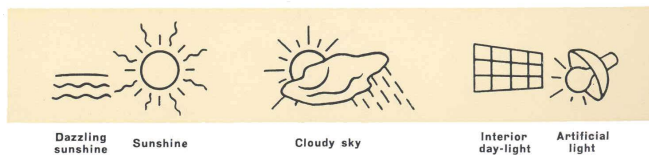
After loading the camera, adjust the emulsion speed indicator in accordance with the type of film used (22 Figure 4). If the film is black-and-white, you move the « B & W » arrow to point to the black ASA number which is nearest to the ASA number of your film. Example, 25 ASA black-and-white (figure 12). If the film is in color, you will use the

« Color » arrow and point it toward the position nearest to the ASA number of your film - Example, 10 ASA in Color (figure 13). This setting will automatically adjust the exposuremeter calibration to the particular film you are using.

## Opening of Camera

You open the front cover by pressing the small upper button (3 Figure 1).

## MEANING OF THE SYMBOLS ENGRAVED ON DIAL OF DIAPHRAGM STOP NUMBERS





# **GaMi 16 mm Sub-miniature Camera**

## **SUMMARY OF INSTRUCTIONS FOR USE**

On the left side of the camera is the knob for regulating the diaphragm and, concentric to it, the film sensitivity indicator. On the right side is the knob for regulating the exposure time (shutter speed), the knob for regulating the distance (range finder) and the release knob.

### **LOADING THE CAMERA:**

1. Regulate the sensitivity indicator according to the sensitivity of the film to be used.
2. Open the back of the camera, insert the cartridge, and close again.
3. Take three blank exposures.

### **REGULATING THE EXPOSURE TIME:**

4. Regulate the diaphragm knob on that engraved symbol which shows the general lighting of the object.
  - \* **Lamp and window** for interiors.
  - \* **Veiled sunshine, cloudy sky** for exteriors.
  - \* **Sun** for exteriors with bright sunshine.
  - \* **Sun and sea** for exteriors with dazzling sunshine I.

5. Turn the camera towards the object, looking into the viewfinder.

The series of numbers from 1 to 8, partially visible, forms the base of the exposure meter.

Of these numbers, pick out the lowest one that appear barely visible. The preceding number must not be visible at all.

6. Watching the number thus picked out, press a finger on the exposure time regulating knob, so that the transparent figure, or symbol, presenting the general illumination of the object appears in relation to this number.

**REMARKS** - Operation number 4 is not absolutely necessary, since the automatic working of the camera provides for the compensation of any error.

Still, it is better to carry it out in order that the speed of the shutter may not turn out to be abnormal. Operations 5 and 6 must on the other hand be carried out carefully and above all not be forgotten. The selection of the illumination symbol, visible in the exposure meter, must be made taking into account the general illumination of the object and in doubtful cases making use of the indices which are to be found in the intermediate positions.

**Window** - This represents the illumination of interiors with a window or artificial lighting and is

**Automatic Lock** on shutter prevents release when front cover is closed or camera unloaded.

**Back Cover** of camera can be opened by a hinge for loading or inspection.

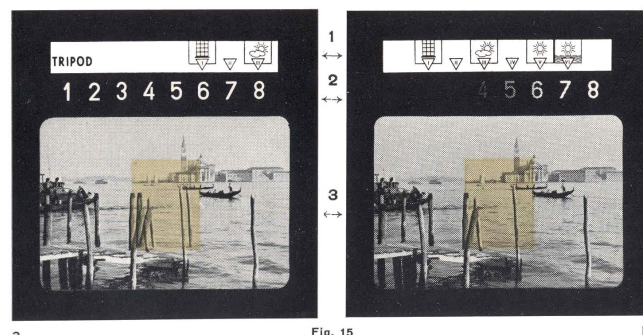
**Loading and Unloading** of camera is very simple, can be carried out in full daylight, with fast loading magazines which can carry up to 30 exposures in color, black-and-white and microfilm:

**Change of Magazine**, can be performed in broad daylight, at any time. It is therefore not necessary to wait till the film is all used up before changing to another magazine. When opening the back cover of the camera the last exposure is not damaged and one can use the unexposed film later on.

**The Camera is an All Metal Construction.** Metals used are mainly stainless steel, phosphor-bronze and anodized light alloys.

**Outside Finish** is made of hard aluminum alloy, in natural color, in two-toned satin finish and anodized. All edges are smoothly rounded off and all optical parts are protected by the front cover so that the camera can be carried in the pocket without a case.

**The GaMi 16 mm is an entirely different type of camera. Because of its novelty in design it is necessary for both the professional and the amateur to read carefully the following instructions.**



**a** bols in exposuremeter appear in focus in higher section of Viewer (1 Figure 15). Now the viewer field will give all the indications necessary to set the camera for proper adjustment of exposure-time.

**b** **Regulating of exposure-time.** Looking through viewer, direct camera towards object to be photographed and look at exposuremeter indication appearing on



used when working in a closed space illuminated in one of the above-mentioned ways.

- II. Intermediate conditions between the previous and the following ones. This is employed when an interior is fully lighted by large windows and when an exterior is largely in shadow, for example under high walls or at sunset.
- III. **Veiled sunshine** - Cloudy sky. To be used under these conditions in the open air, both when in the shade and when the eye is not dazzled by too much sunshine all around.
- IV. Intermediate conditions between the previous and the following ones.
- V. **Sun** - To be used for taking pictures outdoor, when the object and its surroundings are fully sunlit.
- VI. **Sun and sea** - This corresponds to brilliant sunlight in full summer on the open sea or in the mountains when the photographer himself is dazzled.

**REGULATING THE DISTANCE** - Acting on the distance regulating knob, the focusing is regulated in one of the following ways:

- 1. By regulating the distance scale to indicate the distance of the object.

Or else:

- 2. With the range-finder, i.e. looking into the viewfinder and bringing into coincidence the two split images of the object that appear in the small colored rectangle in the center of the field.

**TAKING THE PICTURE** - Press the release knob slowly with a minimum effort, while holding the camera firmly and steadily.

#### **EMPLOYMENT OF COLOR FILMS**

Regulate the sensitivity indicator, using the red numbers, according to the sensitivity of the film (which is usually 10 ASA) and follow the directions already given for black and white films. Do not use the yellow filter.

Anyone employing a color film for the first time should observe the following simplifying instructions:

- 1. Only photograph objects illuminated frontally, or nearly so, by the sun and not just before sunset.
- 2. Regulate the diaphragm on f/5.6. If the sunshine is very brilliant regulate on f/8. If the sunshine is slightly obscured regulate on f/4.
- 3. Regulate the shutter speed on 1/50.

**NOTE ON LOADING** - Though the cartridges are lightproof it is advisable not to expose them too freely; thus it is better to load and unload the camera as much shelter as possible.

is automatic after each shot. To perform the transport and to cock the shutter, there is a special built-in spring mechanism allowing the taking of three shots in rapid sequence without any intermediate operation.

- ★ The lens is of six elements, F:1,9 anastigmat with antireflecting coating.
- ★ The shutter ranges from 1/2 second to 1/1000 second and B.

Such a high speed, combined with such a wide aperture lens permits the taking of any fast moving subject.

**When the front cover springs open, the camera is ready to take pictures.**

- ★ The camera has also a built-in yellow light filter that can be inserted or excluded at will. The exposure meter will

automatically take into account the insertion of the filter.

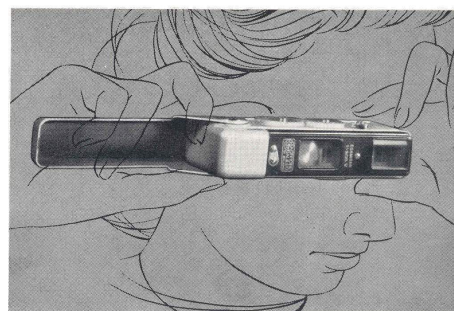
- ★ The film magazine, double cassette arrangement, can be inserted or taken out of the camera in broad daylight even after partial use of the film, without damage of the shots already taken. This allows the quick change from a Black-and-White film to Color film at any time.

With this small camera more natural and spontaneous photos can be taken than with a larger and heavier one.

The negatives are so detailed and sharp that the enlargements seem to be obtained from much larger negatives.

With color film, one can project on the same screen dimensions as from standard thirty-five millimeter transparencies.

Fig. 19



#### Use of Flash

To employ flash bulbs or electronic flash it is necessary to use a special attachment

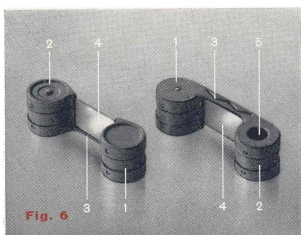
(1 Figure 20). To do this begin by tightening buttons (2) and (3) to one another. Bring the attachment against the threaded



- 11 The front window for the lens and for the other base-end of the rangefinder.
- 12 Reference pin for accessories (tele-lenses, sunshade, filters, etc.).
- 13 Lever for inclusion or exclusion of built-in filter.

**Figure 3**

- 14 Eyepiece for combined viewer, range-



**Fig. 6**

- finder, parallax corrector and exposuremeter.
- 15 Focussing control knob for adjustment of eyepiece to individual eye correction.
- 16 Hinged back cover for camera loading.
- 17 Screw lock of back cover (O = Open and C = Closed).
- 18 Finger grips for easy opening of back cover.
- 19 Screw socket for tripod and flash attachment.
- 20 Electric contact for flash, at bottom of screw socket.
- 21 Dial for stop number setting, coupled to exposuremeter.

**Figure 4**

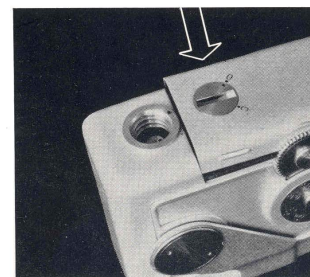
- 22 Emulsion speed indicator, coupled to exposuremeter.
- 23 Frame counter, setting back to zero automatically when back cover is opened.

**Figure 5**

- 16 Back cover of camera in open position ready to receive film magazine.
- 24 Film pressure plate, pressing film against frame window.
- 25 Film advance gear with square shaft for winding film on take-up spool of magazine.

**Figure 6 - Fast loading magazine.**

- 1 Cassette containing unexposed film.
- 2 Cassette with spool receiving the exposed film.



**Fig. 7**

- 3 Connecting piece.
- 4 Film.
- 5 Cavity spool to engage square shaft of take-up gear in order to advance film.

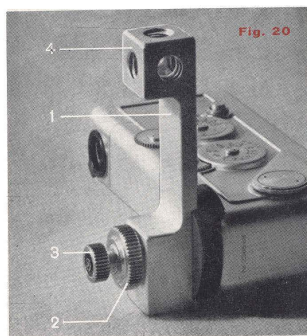


Fig. 20

socket of the camera and screw on button (3) all the way. Successively, tighten button (2) against the attachment.

The flash attachment (bulb or electronic) must be screwed on one of the five threaded holes (4 Figure 20) on the upper part. The threads are all standard 3/8". Connection for 1/4".

The electric cord is plugged in button (3) which has a standard concentric bipolar plug (central contact insulated and the other grounded).

Electronic flash can be used at any shutter speed up to 1/250 of a second (1/500 and 1/1000 excluded). Flash bulb can be used for shutter speeds up to 1/25 of a second.

Higher speeds can be obtained following special instructions given by makers of different brands of bulbs. GaMi 16 provides X- type synchronization, that is, the circuit is closed at the moment when the shutter attains maximum aperture.

## Exposure-meter automatically controlling exposure

### GaMi 16 mm. Subminiature Camera

Officine Galileo of Milano, Italy, after many years of research, have successfully developed a totally new type of camera of the highest performance, both for amateurs and professionals.

The camera uses 16 mm film in color or black-and-white.

Here are some of the special features of the GaMi, which are not found combined in any of the existing subminiature models.

★ It is light and compact, truly pocket size.

★ It has a built-in exposure-meter coupled automatically to the mechanism controlling exposure (stop aperture and shutter).

This represents a unique achievement in the field of photography.

★ Range finder, viewer and parallax corrector built-in end coupled to the lens. The focussing and the stop aperture are regulated by the operator when looking into the viewer window where he finds all the indications needed.

★ The film transport from frame to frame





***The 16 mm Subminiature Camera  
with Automatic exposure-meter***

Officina d'Arte Grafica A. Lucini e C. - Milano - 3500/1.59 - Printed in Italy

OFFICINE GALILEO DI MILANO (ITALY)  
VIALE EGINARDO 29 - TELEFONO 464846



***The 16 mm Subminiature Camera  
with Automatic exposure-meter***

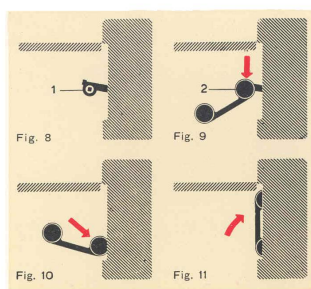
OFFICINE GALILEO DI MILANO



# Loading of Camera

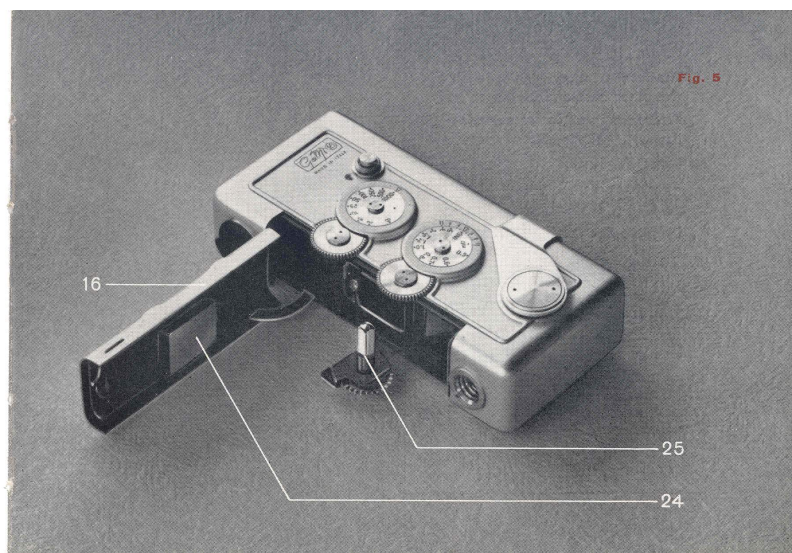
It can be done in broad daylight if care is taken to avoid direct rays hitting open camera and magazine.

- 1 Open back of camera (Figure 7) using a penny, dime, or similar object to turn the opening screw towards the left, until the black slot takes the position O (Open).
- 2 Pull out arm (Figure 8) carrying the pivot for the winding spool.
- 3 Insert winding spool on the pivot (2 in Figure 9), gently push cassette downwards into the camera, following the rotation of the arm carrying the pivot (Figure 10).
- 4 Rotate the magazine upwards in order to allow the other cassette to enter upper lodging in the camera (Figure 11).



11) - take care that magazines enter easily in camera; this will always be true unless magazine has been accidentally damaged.

- 5 Close back cover and turn screw towards the right, to position C (Closed).



color, black and white or microfilm.  
Antireflecting coating of all surfaces.

**Iris Diaphragm** with click stop adjustments from F/1,9 - F/2,8 - F/4 - F/5,6 - F/8 - F/11.

**All Metal Lens Shutter** with speeds from 1/2 to 1/5, 1/10, 1/25, 1/50, 1/100, 1/250, 1/500, 1/1000th second and B.

**Viewer** Galileo type, at eye level adjustable eyepiece for individual eye correction from - 3 ÷ 3 diopters.

**Superimposed Split Image Rangefinder:** located at center of the field of the viewer, ranges from 50 cm (20 inches) to infinity.

**Automatic Parallax Corrector** coupled to range-finder, so that it regulates the correct framing of the image at close-ups.

- 1 Framing of subject.
- 2 Warning of presence of filter.
- 3 Control of exposure-time.
- 4 Warning of necessity of Tripod or B exposure.
- 5 Focussing of subject and automatic correction of parallax.

To shoot your first photo, presse gently



Film transporting is automatic. The front cover can be opened and closed any number of times between shots without waste of film, the transport mechanism acts only after the release button has been pressed.



★ To perform the motion of the film and to cock the shutter, there is a special built-in spring mechanism allowing three shots in rapid sequence without any intermediate operation.

★ The lens consists of **six elements, F:1,9** anastigmatic with antireflecting coating.

★ The shutter ranges from 1/2 second to 1/1000th second and B.

This high speed, combined with such a wide aperture lens permits the tacking of any fast moving object.

A built-in yellow filter can be inserted or excluded at will. The exposure-meter will automatically take into account the insertion of the filter.

**When the front cover springs open, the camera is ready to take pictures.**

★ The special fast loading film magazine, double cassette arrangement, can be

inserted or removed in broad day light, even partial use of the film without damage of the shots already taken. This allows quick change from Black-and White to color or micro-film, at any time.

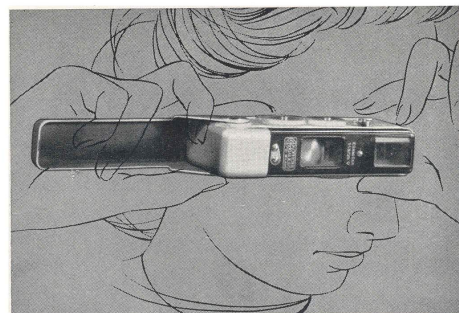
With this small camera more natural and spontaneous photos can be taken than with a larger and heavier one.

The negatives obtained are so clear and sharp the enlargements seem to be good contact printed photos of larger negatives. With color film, one can project on the same screen dimensions as from standard thirty-five millimeter transparencies.

#### MAIN FEATURES

**Size of Negatives:** 12x17 mm nonperforated 16 mm film (about 2.5 times the

Fig. 19

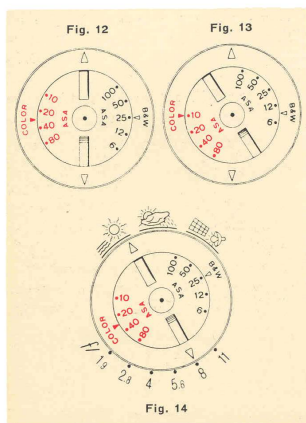


#### Change of film

Back cover of loaded camera can be easily opened any time, and film cartridge changed with another one having different

speed either in black-and white or in color.

After having closed the camera, make three shots, then camera is ready.



The release button (4 Figure 2) is now set ready for use - you press it three times till the frame counter passes from the red indication to zero reading on film counter. You close the front cover again to reload the spring mechanism and you reopen it.

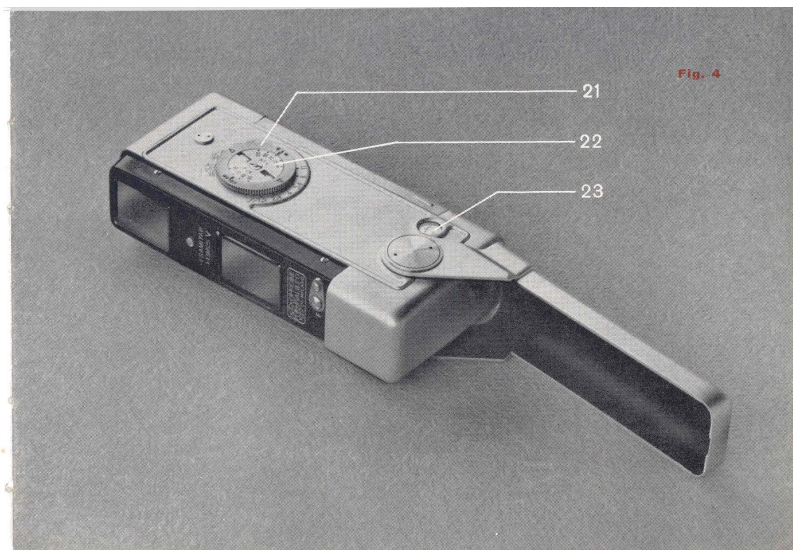
#### Setting of Stop

Use the large dial (21 Figure 4) where all the stop numbers (1,9 - 2,8 - 4 - 5,6 - 8 - 11) are indicated.

To choose a suitable stop number you can use the symbols which indicate the different gradings of light. Example, Sun symbol corresponds to stop number F/8 - (Figure 14).

#### Adjustment of Viewer

Look into viewer (14 Figure 3) and adjust lever on eyepiece (15 Figure 3) until sym-



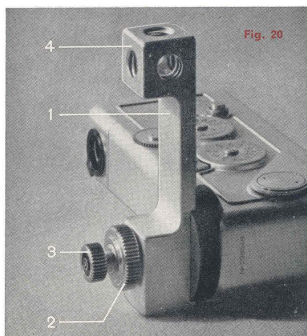


Fig. 20

- 1) when camera is closed (very safety against eventual impacts)
- 2) after sequence of three shots. (camera is easily reset by reopening the shutter)
- 3) at the end of film, or when camera is not loaded.

**Red Warning Indicator close to the shutter release:** 9 (fig. 1).

Changes from white to red when camera is not loaded or film is fully exposed.

#### Use of Flash

To employ flash bulbs or electronic flash it is necessary to use special attachment 1 (fig. 20). To do this tighten buttons (2) and (3) to one another.

Bring the attachment against the threaded socket of the camera and screw on button (3) all the way. Successively, tighten button (2) against attachment.

The removed film may be reloaded into camera until it is fully exposed.

**Automatic Lock of Shutter Release** locks:

### Exposure-meter automatically controlling exposure

#### GaMi 16 mm. Subminiature camera.

Officine Galileo of Milano, Italy, after many years research, have successfully developed a totally new type of camera of the highest quality, both for amateurs and professionals.

The camera uses 16 mm color or black-and-white films.

Here are some of the GaMi 16 camera outstanding features, which cannot be found combined in any of the existing subminiature models.

★ It is light and compact, truly pocket size.

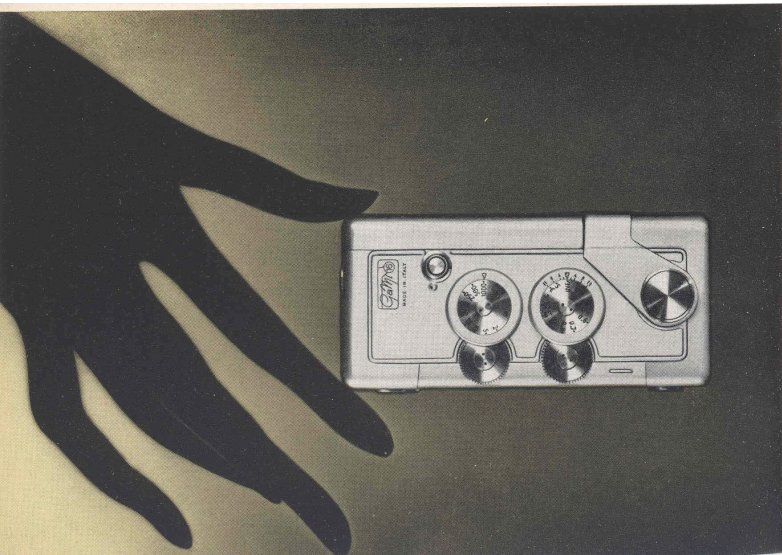
★ It has a built-in exposure-meter automatically coupled to the mechanism controlling exposure (stop aperture and shutter).

This represents a unique achievement in the field of photography.

★ Range finder, viewer and parallax corrector are built-in and coupled to the lens. Focussing and stop aperture are regulated by the operator while looking into the viewer window, where he finds all indications needed.

★ The film transport from frame to frame is automatic after each shot.





The flash attachment (bulb or electronic) must be screwed on one of the five threaded holes 4 (fig. 20) on the upper part. The threads are all standard 3/8" Connection for 1/4".

The electric cord is plugged in button (3) which has a standard concentric bi-polar plug (central contact insulated and the other grounded).

Electronic flash can be used at any shutter speed up to 1/250th second (1/500th and 1/1000th excluded). Flash bulb can be used for shutter speeds up to 1/25th second.

Higher speeds can be obtained following special instructions given by makers of different type of bulbs. **GaMi 16** provides X-type synchronization, that is, the circuit is closed at the moment when the shutter attains maximum aperture.



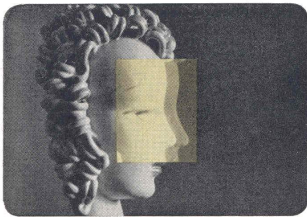


Fig. 16 a

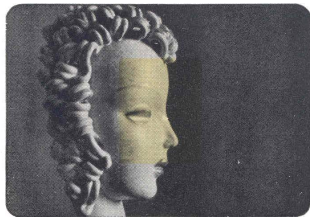


Fig. 16 b

#### Parallax Correction

The difference in framing between viewer and camera lens at all distances is automatically compensated when camera is correctly focussed.

#### Yellow Filter

The built-in yellow filter can be inserted by pushing to the right small lever

F13. (fig. 2). Looking into the Viewer, one is aware of the presence of the filter, because the exposure meter field will also appear yellow colored. The exposure meter will thus automatically consider the presence of the filter.

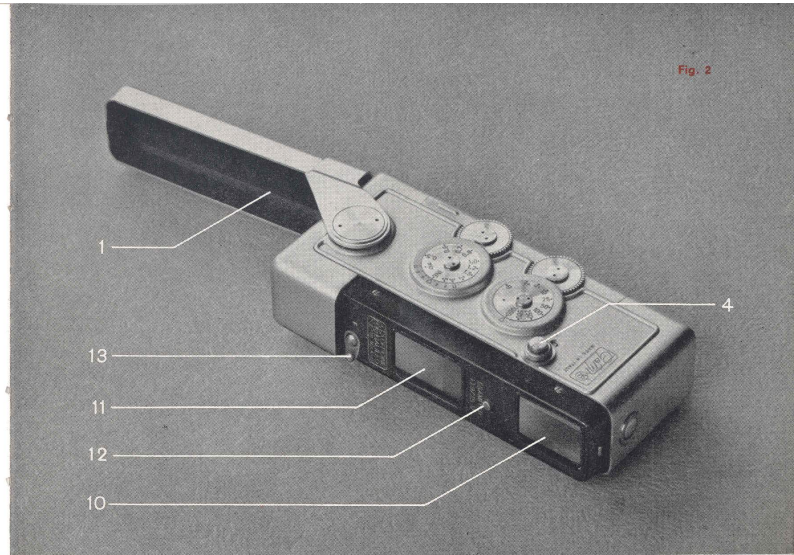


Fig. 2

**Depth of Field Indicator:** engraved on the scale of distances connected with the rangefinder.

**Emulsion Speed Indicator:** calibrated for film speed from 6 - 12 - 25 - 50 - 100 ASA black-and-white, and 10 - 20 - 40 - 80 ASA color.

**Built-in Automatic Exposure** meter of the optical extinction type coupled to shutter speed, stop number, emulsion speed indicator and filter inserter. The exposure meter can be matched either by setting the time of exposure and adjusting the aperture. In both cases when the exposure is matched, all other elements are automatically adjusted.

**Built-in Yellow filter:** can be inserted or excluded by means of a small lever, which also acts automatically on the exposure meter, to correct exposure-time.

**Built-in Flash Bulb Synchronization:** Flash attachment can be screwed on the threaded tripod socket - X type synchronization (also for electronic flash).

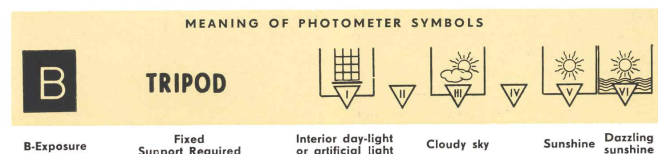
**Frame Counter:** sets back to zero automatically when camera is reloaded.

**Threaded Collar** around release button for attachment of flexible release, self-timer, or special synchronizer.

**Built-in Tripod Socket** (standard 3/8" or 1/4" attachment).

**Red Warning indicator** appears when camera is unloaded or film fully exposed.

**Automatic Lock** on shutter prevents release when front cover is closed or camera unloaded.



coupled automatically to the focussing mechanism of the lens. It operates from 50 meter (20") to infinity.

The central part of viewer field is framed in a small rectangle, slightly colored where the image appears double (as in fig. 16 a) when lens is not exactly focussed. By turning on thumbwheel 7 (fig. 1), the two images can be brought to coincide (as in fig. 16 b). When this is done the lens is properly focussed on the subject.

#### Depth of Field

The range within which the subject will appear sharp enough on the negative can be read on the depth of field indicator incorporated in the rangefinder dial (fig. 17). The range of distances contained between the two equal numbers representing the stop number used, will represent the depth of field. (example: using a F/8 stop, depth of field in fig. 17 is from 1,50 meter to 5 meters.



**Back Cover** of camera can easily be opened for loading or inspection.

**Loading and Unloading** of camera very easy even in full daylight, with fast loading magazines for 30 exposures, color, black and white or microfilm.

**Change of Magazine**, can be performed in broad daylight, at any time. It is, therefore, unnecessary to wait till the film is fully exposed before changing the magazine. When opening the back cover of the camera the last exposure is not damaged and one can use the unexposed film later on.

**The camera is an All Metal Construction.** Metals used are mainly stainless steel, phosphor-bronze and anodized light alloys.

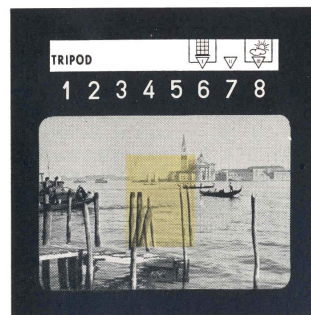
**Beautiful** duraluminium finished, in two-tone satin anodized, streamlined. All optical parts are protected by front cover so that the camera can be carried in a pocket without its case.

Since the GaMi 16 is an entirely new camera, different from any type so far manufactured, it is necessary both for the professional and the amateur to read carefully the following instructions.

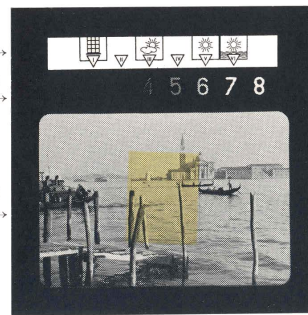
#### PARTS.

Figure 1.

- 1 Front cover, when open, is also a strong and comfortable grip. When closed, it reloads the spring mechanism which provides the film transport



a



b

Fig. 15

of exposuremeter are focussed in higher section of Viewer 1 (fig. 15). Now the viewer field will give all the indications necessary to set the camera for proper adjustment of exposure-time.

#### How to regulate exposure-time

Looking through viewer, direct camera towards the object to be photographed and look at exposuremeter indication

and the cocking of the shutter after each shot. Each winding of spring mechanism allows 3 single shots or sequence.

- 2 Hinge of the front cover.
- 3 Push button for opening the cover.
- 4 Release button with standard threaded collar for attachments of flexible extension, « autorelease » special synchronizers.
- 5 Dial control thumbwheel for shutter speed adjustment coupled to exposuremeter.
- 6 Calibrated dial for shutter speed (reading from 1/2 to 1/1000th second and B).
- 7 Dial control thumbwheel for lens focussing, coupled to rangefinder.

8 Calibrated dial for range, reading from 50 cm to infinity, including depth-of-field indicator related to stop number.

- 9 « Loaded camera » indicator, showing a white signal when camera is loaded and a red signal when camera is unloaded or film totally exposed.

Figure 2

- 10 Combined front window for viewer, rangefinder and exposuremeter.
- 11 Front window for the lens and for the other base-end of the rangefinder.
- 12 Reference pin for accessories (tele-lenses, sunshade, filters, etc.).
- 13 Lever for inclusion or exclusion of built-in filter.

#### Speed and Type of Emulsion

After loading the camera, adjust the emulsion speed indicator in accordance with the type of film used 22 (fig. 4). When the film is Black-and-White adjust « B & W » arrow so that **coincides** with the black ASA number nearest to the ASA number of your film.

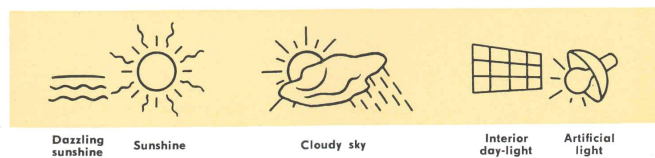
Example: **50 ASA Black-and-White** (fig. 12) - When you use color film adjust the « color » arrow until it reaches the position nearest to the ASA number of your

film - Example: **20 ASA Color** (fig. 13). This setting will automatically adjust the exposuremeter calibration to the particular film you are using. For bigger speed than 200 ASA see directions which are attached in film cassettes.

#### Opening of Camera

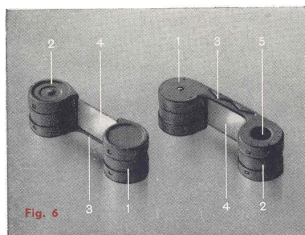
Open the front cover by pressing button 3 (fig. 1).

#### MEANING OF THE SYMBOLS ENGRAVED ON DIAL OF DIAPHRAGM STOP NUMBERS



**Figure 3**

- 14 Eye-piece for combined viewer, range-finder, parallax corrector and exposuremeter.
- 15 Focussing control knob for adjustment of eyepiece to individual eye correction.



- 16 Hinged back cover for camera loading.

- 17 Screw locking back cover (O = Open, C = Closed).

- 18 Finger grips for easy opening of back cover.

- 19 Screw socket for tripod and flash attachment.

- 20 Electric contact for flash, at bottom of screw socket.

**Figure 4**

- 21 Dial for stop number setting, coupled to exposuremeter.

- 22 Emulsion speed indicator, coupled to exposuremeter.

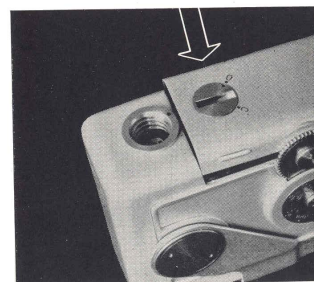
- 23 Frame counter, setting back to zero, automatically, when back cover is opened.

**Figure 5**

- 16 Back cover of camera in open position ready to receive film magazine.

- 24 Film pressure plate, pressing film against frame window.

- 25 Film advance gear with square pin for winding film on magazine spool.



**Fig. 7**

**Figure 6 - Fast loading magazine**

- 1 Cassette containing unexposed film.
- 2 Cassette with spool receiving the exposed film.

- 3 Connecting piece.

- 4 Film.

- 5 Cavity spool to engage square pin of take-up gear in order to advance film.



appearing on top of viewer field 1 and 2 (fig. 15). You will notice a series of transparent numbers from 1 to 8 appearing on a dark background. This visibility increases from the lowest to the highest number after having adjusted stop aperture according to previous paragraph the lowest numbers will be darkened (fig. 15 b). You must now pick out the first number that is just visible. We shall call it the « photometric number ». The number immediately preceding the « photometric number » must be thoroughly invisible. In (fig. 15 b) 4 appears to be the « photometric number ».

You now proceed to act on the dial control thumbwheel for shutter speed adjustment with the lefthand thumb until the symbol best representing the outside light condition of the subject will appear directly over the « photometric number ».

The example in (fig. 15 b) shows the symbol « cloudy sky » over « Photometric number » 4. This operation automatically adjust the speed of the shutter in relation to the stop number already set and to the speed of the emulsion. If the word « tripod » appears in the field, (as in fig. 15 a) it means that either the tripod or a firm support is necessary; because the shutter speed has been set at a longer time than 1/25th of a second and it would be difficult to keep the camera steady.

When letter B appears at the extreme left, it means that light conditions require a time-exposure. Shutter is open when set on B by pressure on shutter button, and closes by release of that pressure.

#### How to Set Rangefinder

The rangefinder built in the Viewer is

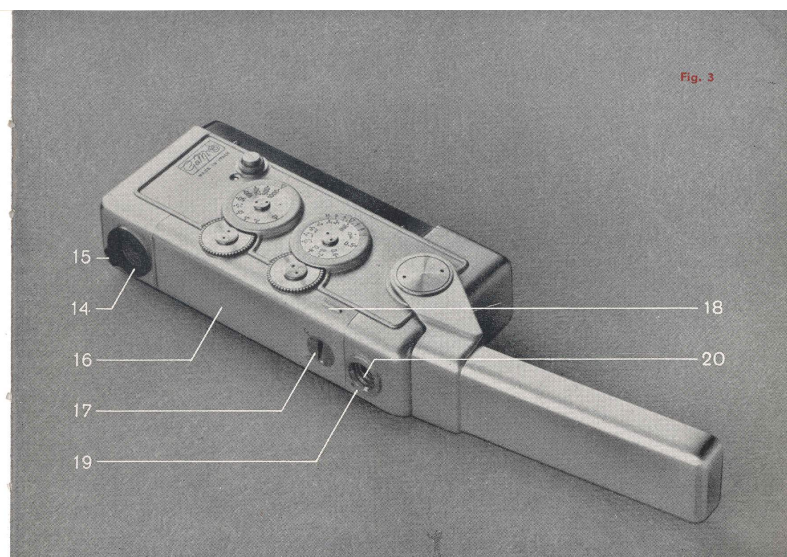


Fig. 3

The **ULTIMATE**  
**ACHIEVEMENT**  
in Sub-Miniature Design . . .

MADE  
IN  
ITALY



4 1/2" long  
2" wide  
1" deep

The Incredible  
**GaMi 16**

Only Galileo di Milano, Italy's world-famous manufacturer of optical instruments could have produced a subminiature camera with the fantastic precision of the GaMi 16. Most advanced of 16mm still cameras, the GaMi combines an exposure meter, viewfinder, 20 in.-to-infinity range-finder and parallax corrector in a single eyepiece viewer. The exposure meter automatically sets the shutter speed or f/stop for any given film sensitivity. **\$297.50**

*There are more superb features, too!*

- 5-element 25mm f/1.9 coated Galileo lens, click stops to f/11
- Speeds from 1/2 sec. to 1/1000th and bulb
- Synchronized for flash and electronic flash
- 3 sequence shots on a single winding
- 17 x 12mm negatives on standard 16mm film
- Daylight loading 30 exp. — re-usable black and white or color cartridges
- All metal body with satin finish

The **ONLY**  
**COMPLETE SYSTEM**  
of Standard 16mm Photography

The versatile **GaMi 16** offers a full line of accessories, including:

The new 4x  
f/4 TELELENS



**\$135** with case

Daylight Developing Tank  
Enlarger • Copying Outfit  
Microscope Adapter  
Spoolwinder • Film Cutter  
Frame Viewer • 2x2 Mounts  
Flash Attachment  
Filters • Closeup Lens  
Empty Film Cartridges

Write for illustrated literature on the  
GaMi 16 and accessories:

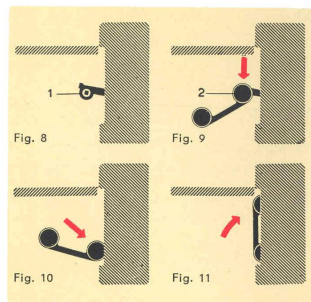
**GAMI CORPORATION**  
452 Fifth Avenue, New York 18, N.Y.



# Loading of Camera

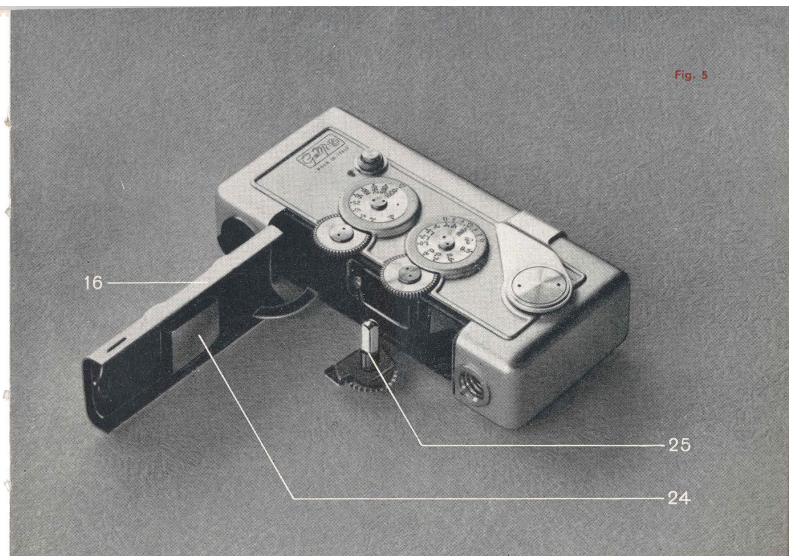
It can be done in broad daylight if care is taken to avoid direct rays hitting open camera and magazine.

- 1 Open back of camera (fig. 7) using a penny, dime, or similar object to turn the opening screw towards the left, until back is on position O (Open).
- 2 Pull out arm 1 (fig. 8) carrying the pivot for winding spool.
- 3 Insert winding spool on pivot 2 (fig. 9), gently push cassette downwards into the camera, following the rotation of the arm carrying the pivot (fig. 10).
- 4 Rotate magazine upwards in order to allow the other cassette to enter upper lodging of camera (fig. 11), take care that magazines enter easily

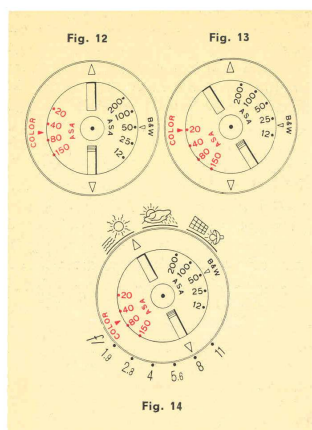


into camera; this will always be true unless magazine has been accidentally damaged.

- 5 Close back cover and turn screw towards the right, to position C (Closed).







Button of release 4 (fig. 2) is now set ready for use. Press it three times till the frame counter passes from red indication to zero reading on film counter. Close front cover again, to reload spring mechanism and reopen it.

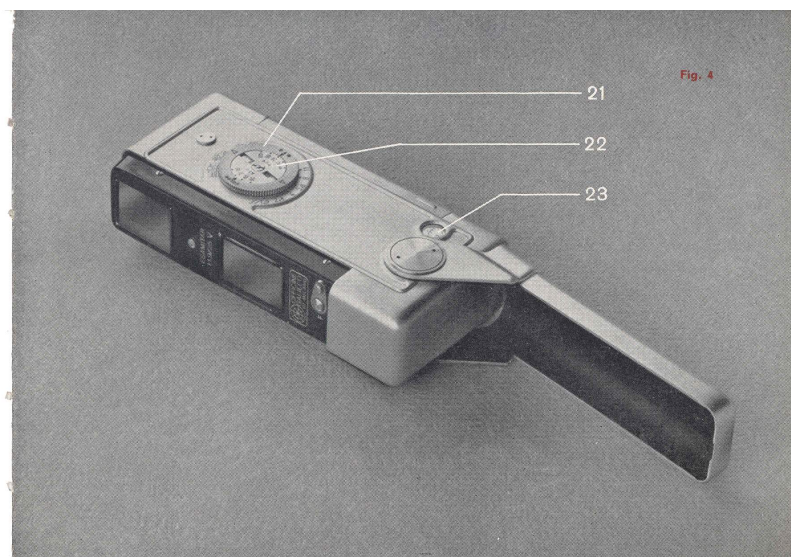
#### Setting of Stop

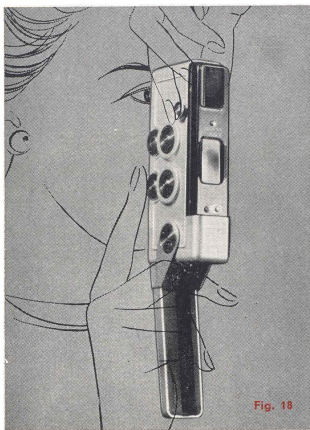
Use large dial 21 (fig. 4) where stop numbers (1,9 - 2,8 - 4 - 5,6 - 8 - 11) are engraved.

To choose suitable stop number you can refer to the symbols which indicate the different gradations of light. For example: Sun symbol corresponds to stop number F/8 - (fig. 14).

#### Viewer adjustment

Look into viewer (fig. 3) and adjust eyepiece lever 15 (fig. 3) until symbol





#### Frame Counter and End of Film

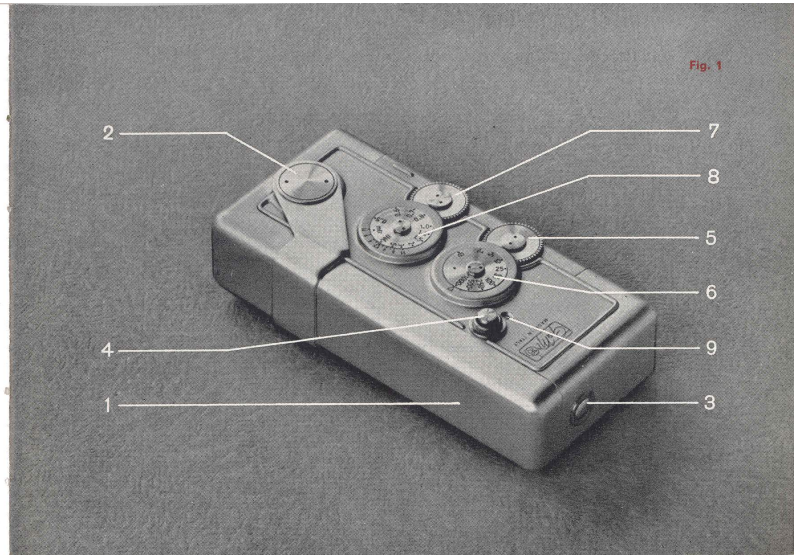
Each shot is registered by an advancing number of frame counter 23 (fig. 4). After loading camera, the frame counter will register zero only when the release button has been pressed three times. This is necessary to use the first bit of film which has been exposed to light during loading.

When the film all exposed, the red warning signal appears near the release button, the release itself will be locked and cannot be operated.

#### Unloading of Camera

Open the back cover and take out magazine, holding it by the connecting link of the cassettes. Pull out the **upper cassette first**, then the lower.

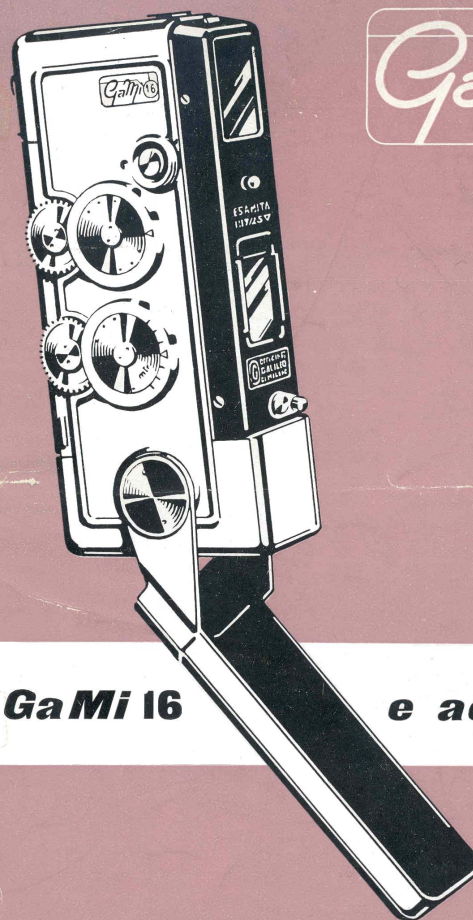
The counter will automatically go back on the small red area preceding zero.





VIALE EGINARDO 29  
MILANO - TEL. 464.846

5000/56/IT. - Tip. A. Lucini e C. - Milano



*GaMi* 16

***GaMi 16 e accessori***

OFFICINE GALILEO DI MILANO - VIALE EGINARDO 29 - MILANO





*Galmi* 16

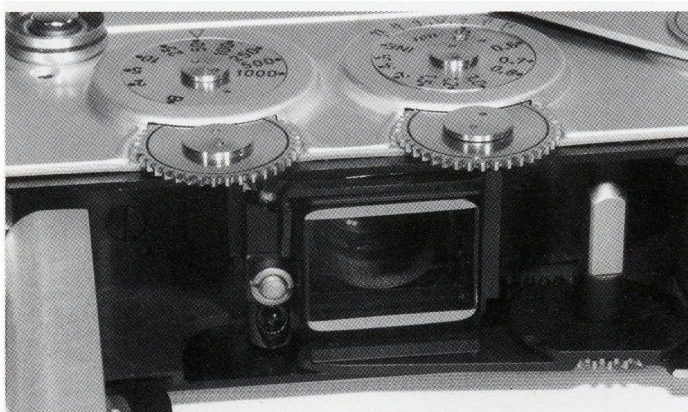
# GaMi 16

Mars - Avril 1999





## *Le GaMi 16 prêt à photographier*



*Le GaMi 16 dos ouvert, vue de l'intérieur:  
on distingue le bras en L du palpeur au-dessus et  
à gauche du rail supérieur de guidage du film et  
l'axe d'entraînement du film sur son bras pivotant.*

*(Collection Claudio RUSSO, photo GHNASSIA)*



Le déclencheur est situé à main gauche sur le dessus de l'appareil, un filetage mâle,  $d=8\text{mm}$ , permet la mise en place d'un flexible avec embout "cloche" (type Leica ou Nikon).

Sécurités: Le déclenchement est impossible

- Si le capot/poignée est fermé ou insuffisamment ouvert
- Après exposition de 3 vues successives
- Si le film est entièrement exposé
- Enfin si l'appareil est vide.

Un palpeur situé en amont du rail supérieur de guidage détecte la présence ou non du film et agit mécaniquement sur le système de verrouillage de l'obturateur ainsi que sur l'indication du voyant.

Il est possible de vérifier le bon fonctionnement de l'obturateur en neutralisant la sécurité, pour cela ouvrir le capot avant et le dos et maintenir un doigt sur le palpeur, le voyant devient blanc, déclencher.

Attention: ne pas mettre les doigts du côté de l'axe d'entraînement.

Il n'est pas possible de passer sous silence (!) un défaut irrémédiable: l'entraînement du film est d'un tel niveau sonore que l'on ne peut pas passer inaperçu.

Autre désagrément: le contact du doigt sur les dents acérées des molettes.

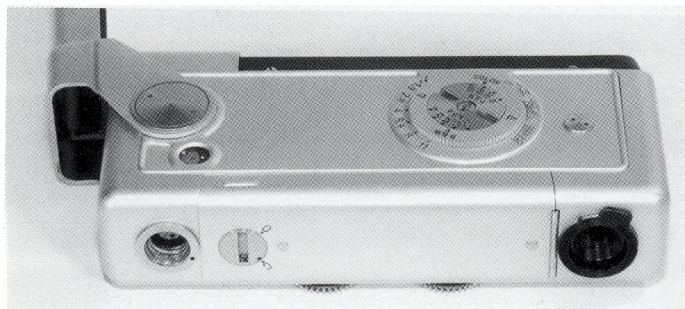
Pour le collectionneur ces défauts sont néanmoins sans importance.

### **ACCESSOIRES**

Comme la plupart des miniatures, le GaMi 16 était livrable avec de nombreux accessoires, tous spécifiques et actuellement difficiles à trouver.

Article et photos **Jacques JACOB**



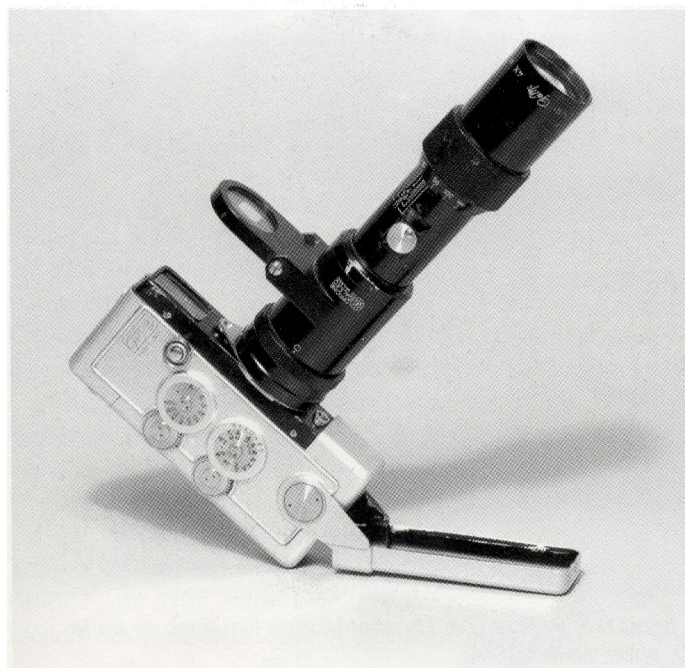


*Le GaMi 16 ouvert, vue de l'arrière, de gauche à droite: écrou de pied/prise flash dont on distingue le contact, verrou fendu d'ouverture du dos, oculaire du viseur avec réglage dioptrique.*



*Le GaMi 16 ouvert, vue de face: levier du filtre jaune, sigle fabricant, fenêtre de l'objectif et du télémètre, fenêtre du viseur, une glissière sur la fenêtre d'objectif et un plot entre les 2 fenêtres servent au maintien des accessoires optiques.*

*Le GaMi 16 avec le téléobjectif 4X  
(Collection Claudio RUSSO, photo GHNASSIA)*



Commande en continu par molette au-dessus de l'appareil, couplage avec une échelle mobile dans la partie supérieure du viseur et comportant des symboles identiques à ceux figurant sur le disque des diaphragmes. Cette échelle indique "Tripod" sur la nécessité d'utiliser un pied, dans le cas de vitesses lentes ainsi que pour la pose B.

Synchro-flash, le contact est situé au fond de l'écrou de pied (comme le Contax S). Cela nécessite un raccord spécial.

### VISEUR

Optique, type Galilée;  
correction de parallaxe, correction dioptrique.  
Indications dans le viseur:

Au centre, réglage télémétrique par superposition d'une image colorée. Au-dessus du cadre de visée, en premier l'échelle du posemètre optique, en second l'échelle défilante des symboles "météo" de sélection de vitesses.

La mise en place du filtre colore en jaune les deux échelles ci-dessus.

### EXPOSITION

Le système de mesure est à la fois simple et évolué.

Peut être assimilé à un mode priorité au diaphragme avec réglage manuel des vitesses sur les indications du posemètre. La simplicité: un posemètre optique à densité décroissante; on doit prendre en compte le chiffre à la limite de la lisibilité (on retrouve ce type de posemètre sur l'Eljy-Club et le Lumiclub).

Le "Plus": Le couplage de ce posemètre avec le disque des diaphragmes et avec le sélecteur de sensibilité du film, la présence du filtre est également prise en compte.

Le disque de réglage des diaphragmes et le sélecteur de sensibilité du film sont concentriques et sont disposés sous le boîtier.

Gammes de sensibilité: en noir et blanc de 6 à 100 ASA, en couleurs de 10 à 801 ASA.

## COMMENT ÇA MARCHE ?

- 1) Afficher la sensibilité du film utilisé.
- 2) Choisir avec le disque des diaphragmes le symbole "météo" de la luminosité. Il y correspond une valeur de diaphragme, si cette ouverture ne convient pas (ex: manque de profondeur de champ), afficher l'ouverture désirée sans tenir compte du symbole.
- 3) Régler le viseur à sa vue.
- 4) Viser la zone à photographier, si nécessaire mettre le filtre jaune (en noir et blanc uniquement). On peut aussi faire la mise au point, celle-ci n'intervenant pas dans la mesure de l'exposition.
- 5) Mémoriser (dans la tête, pas dans l'appareil) le dernier chiffre lisible du posemètre optique et faire coïncider, en tournant la molette des vitesses, le symbole lu sur l'échelle défilante qui correspond aux conditions réelles d'éclairement, avec le chiffre mémorisé. Il est important de prendre sur l'échelle défilante le symbole réel et non celui qui a été choisi en 2), si ce dernier est différent. En effet, quel que soit le choix du symbole en 2), c'est uniquement la valeur du diaphragme correspondant qui est prise en compte du fait du couplage diaphragme/posemètre.

Ayant fait des mesures comparatives avec une cellule j'ai pu cons-



immediatamente dopo ogni presa. Permette l'esecuzione di tre fotografie isolate od in rapida sequenza. La ricarica della molla si effettua automaticamente chiudendo lo sportello anteriore della macchina.

**Obiettivo anastigmatico** a sei lenti « Galileo-Esamitar » di apertura F/1,9 - lunghezza focale 25 mm (1") - Corretto per colore, bianco e nero e microfilm. Trattamento duro antiriflettente (azzurramento) di tutte le superficie.

**Diaphragma ad iride** regolabile, con click da F/1,9 - F/2,8 - F/4 - F/5,6 - F/8 - F/11.

**Otturatore all'obiettivo:** completamente metallico, per velocità di 1/2 secondo, 1/5, 1/10, 1/25, 1/50, 1/100, 1/250, 1/500 e 1/1000 più la posa breve: B.

**Mirino** galileiano all'altezza dell'occhio con oculare regolabile da circa + 3 a - 3 diottrie, secondo la vista dell'operatore.

**Telemetro** a sovrapposizione di immagine, al centro del campo del mirino, combinato col mirino in un solo oculare, per distanze da 0,50 m all'infinito.

**Correttore di parallasse** automatico che regola l'inquadratura del mirino in combinazione col telemetro per fotografare a breve distanza.

**Indicatore della profondità di campo** in relazione al diaframma ed alla distanza, inciso ai lati dell'indice della scala delle distanze accoppiata al telemetro.

**Indicatore del film:** Sensibilità: 6 - 12 - 25 - 50 - 100 ASA per film bianco e nero e 10 - 20 - 40 - 80 ASA per film a colori.

**Esposimetro automatico** incorporato nel mirino-telemetro, del tipo ottico ad estinzione, accoppiato al regolatore della velocità dell'otturatore, al diaframma ad iride, all'indicatore della sensibilità del film ed all'inseritore del filtro di luce.

La regolazione degli indici del fotometro, fatta osservando nell'oculare del mirino, agisce direttamente sul tempo di posa ove si sia prestabilito il diaframma, oppure sul diaframma ove si sia prestabilito il tempo di posa.

**Filtro giallo incorporato** - Può essere inserito o tolto con una levetta. Agisce au-

tomaticamente sull'esposimetro per la correzione del tempo di posa.

**Sincronizzatore per lampo (Flash)** incorporato nella macchina con innesto nella madrevite del treppiede - Sincronizzazione tipo X.

**Contapose con ritorno automatico** a zero ogni volta che vien caricato un film nella macchina.

**Ghiera a vite**, attorno al pulsante di scatto, per l'attacco dello scatto flessibile, autoscatto, sincronizzatori speciali, ecc.

**Madrevite per il treppiede** ricavata nel corpo della macchina (passo normale di 3/8" e raccordo per passo americano di 1/4").

**Segnalatore rosso** di macchina scarica o di fine del film.

**Blocco automatico** del pulsante di scatto a macchina chiusa o scarica.

**Dorso apribile** a cerniera per la carica del film e l'ispezione dell'interno.

**Caricamento e scaricamento** del film semplicissimi, in luce diurna, con caricatori rapidi fino a 30 fotogrammi, in colore, bianco e nero, microfilm.

**Cambio del caricatore del film**, possibile in luce diurna ed in qualsiasi momento. Si può cambiare film bianco e nero con film in colore o microfilm e viceversa. Non occorre attendere che il caricatore sia esaurito, nè riavvolgere il film.

Aprendo il dorso della macchina non si danneggia l'ultima fotografia eseguita e si può riutilizzare il resto del film.

**Costruzione completamente metallica** - All'infuori delle parti ottiche e degli isolanti per il circuito del Flash, tutte le altre parti sono di metallo: acciai inossidabili, bronzo fosforoso, leghe leggere ossidate anodicamente ecc.

**Copertura esterna** di duralluminio in colore naturale, finita in due toni di satin ed ossidata anodicamente. Tutti gli angoli sono arrotondati, le parti ottiche sono protette e la macchina può essere portata in tasca anche senza astuccio.

Macchina fotografica GaMi 16 in astuccio di pelle.

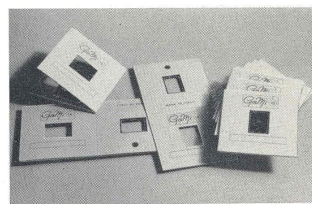
N. di rif. 1650 *Gami*

## TELAJETTI PER FOTO-COLORE GaMi 16

Servono per montare le fotografie a colori destinate alla proiezione.

Sono di cartoncino duro doppio, con mascherina nera e gommatura all'interno. Il montaggio dei fotogrammi è facilitato dalla mascherina che li tiene in posto e permette la rettifica della loro posizione prima dell'incollatura. Il formato della mascherina corrisponde a quello dei fotogrammi della GaMi 16. Con film perforato o con film non perforato (indicare il tipo che si desidera). Il formato esterno è quello standard, usato anche per film 24 x 36 mm, e cioè di cm 5 x 5 (ossia 2" x 2").

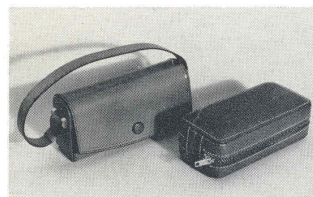
I telaietti quindi possono venir impiegati con qualsiasi proiettore normale per diapositive tipo Condor, Leica, Contax ecc.



I telaietti portano un riferimento stampato esterno per il giusto collocamento sul proiettore e sono di due tipi: orizzontale e verticale.

N. di rif. 1690 *Gadia*

## ASTUCCI SPECIALI PER GaMi 16



Questi astucci di cuoio finissimo e di lavorazione speciale, sono adatti per contenere la macchina fotografica GaMi 16 e sostituiscono il normale astuccio di pelle, quando si desidera una presentazione di lusso.

Astuccio di cuoio per signora.

N. di rif. 1669 *Gabor*

Astuccio di lusso in cinghiale.

N. di rif. 1683 *Gastu*

## ALBUM PER NEGATIVI GaMi 16

I film negativi della GaMi 16 possono essere raccolti in album speciali con fogli mobili di plastica trasparente che permettono l'inserimento delle strisce di film

ed il facile ritrovamento dei fotogrammi interessanti.

La copertina degli album è di similpelle, il raccogliatore automatico è di metallo.

N. di rif. 1688 *Gabum*

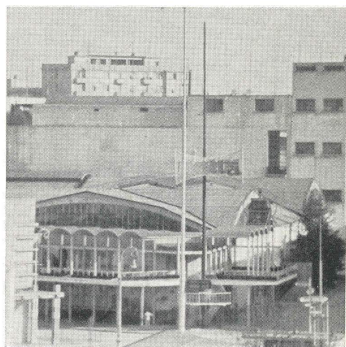
## FLESSIBILI PER SCATTO - AUTOSCATTI - TREPPIEDI

**N.B.** - La GaMi 16 ha la madrevite per il fissaggio al treppiede di passo standard 3/8" e raccordo da 1/4" quindi qualsiasi treppiede normale può essere usato.

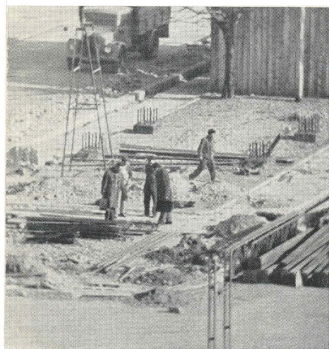
Possono essere usati anche normali raccordi flessibili per scatto ed autoscatto poiché la vite del bottone di scatto è di passo standard.



Fotografia eseguita  
con GaMi 16 normale



Fotografie eseguite con GaMi 16  
munita di teleobiettivo 4x



## GaMi 16 - MACCHINA FOTOGRAFICA per film da 16 mm

Esposimetro incorporato e collegato  
con tutti i controlli dell'esposizione

Le Officine Galileo di Milano hanno portato a termine, dopo numerosi anni di studi ed esperienze, un tipo totalmente nuovo di macchina fotografica di alto valore, per dilettanti e professionisti. La macchina impiega pellicola da 16 mm a colori e in bianco e nero.

Alcuni dei pregi essenziali, che non si trovano riuniti in alcun modello oggi esistente sul mercato, sono i seguenti:

- ★ Ingombro minimo, leggerezza e compattezza che rendono la macchina veramente tascabile.
- ★ **Esposimetro incorporato, automaticamente collegato con gli organi che regolano l'esposizione (diaframma ed otturatore).** Ciò rappresenta una realizzazione di assoluta novità.
- ★ Telemetro, mirino e correttore di parallasse incorporati ed accoppiati all'obiettivo. Sia la messa a fuoco che il tempo di posa, vengono regolati dall'operatore quando guarda dentro il mirino dove trova tutte le indicazioni automatiche occorrenti per la messa a punto.
- ★ Il trasporto della pellicola, per passare da un fotogramma all'altro, avviene automaticamente dopo aver scattato ogni fotografia. A detto trasporto ed alla ricarica dell'otturatore provvede un motore a molla incorporato che permette la ripresa di 3 fotografie in sequenza rapida, od isolate, senza bisogno di alcun caricamento o manovra intermedia.
- ★ L'obiettivo anastigmatico è composto di sei lenti, con luminosità F:1,9 completamente azzurrato. L'otturatore da 1/2 secondo raggiunge 1/1000 di secondo.

Una velocità così elevata, in combinazione con un obiettivo di così grande apertura permette di ritrarre ogni tipo di soggetto anche in azione.

**Appena aperto lo sportello anteriore, la macchina è pronta per fotografare.**

- ★ Nella macchina è contenuto anche un filtro di luce che si include ed esclude a volontà. Il fotometro tiene conto automaticamente della presenza del filtro.
- ★ I caricatori possono essere cambiati in piena luce, in qualunque momento, senza danneggiare nessuno dei fotogrammi già impressi. Ciò permette la pronta sostituzione di un caricatore in bianco e nero con uno in colore, o con microfilm per riproduzioni.

Con questa piccola macchina si possono prendere fotografie di una freschezza e di una spontaneità tali che raramente possono essere uguagliate con l'impiego di macchine più grandi, di maneggio più lento e difficile.

Le piccole negative che si ottengono sono così fine e nitide che i loro ingrandimenti sembrano buone fotografie stampate per contatto da negative di formato notevolmente maggiore.

Nell'impiego del film a colori si rileva un altro considerevole vantaggio poiché, malgrado la piccolezza del formato, si possono fare proiezioni grandi come da fotogrammi standard 24 x 36 mm.

### CARATTERISTICHE PRINCIPALI

**Formato dei fotogrammi:** 12 x 17 mm su film non perforato (circa 2 volte e mezzo il fotogramma cine da 16 mm) e 10 x 17 mm su film perforato per cine.

**Film impiegati:** Film non perforato da 16 mm a colori, bianco e nero, microfilm, in appositi caricatori da 24 a 30 pose. Film cine 16 mm (muto e sonoro) a colori e bianco e nero, in spezzoni caricabili nei caricatori.

**Peso della macchina:** 290 grammi.

**Dimensioni esterne:** 115 x 55 x 27 mm.

**Motore a molla** incorporato per l'avanzamento del film e la ricarica dell'otturatore



#### Sistema ottico

Con grande cura è stato studiato e definito il sistema ottico in relazione al piccolo formato dei fotogrammi. Onde eliminare il più possibile la riproduzione della grana del film, graffi, puntini e di altri piccoli difetti del nega-

tivo è stata combinata una illuminazione parzialmente diffusa con un obbiettivo di alto potere risolutivo, di grande incisione e corretto cromaticamente su tutto il campo. L'apertura dell'obbiettivo, senza diaframma ad iride, è invariabile e corrisponde a quella che permette di ottenere i migliori risultati.

N. di rif. 1670 Gaing

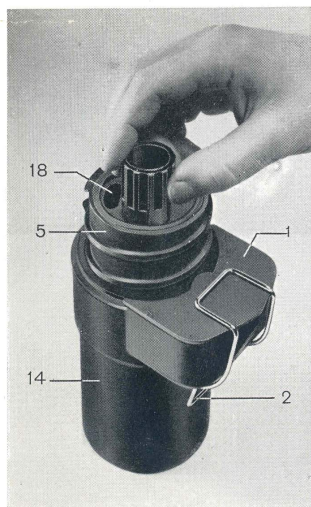
#### OBBIETTIVO PER INGRANDITORI

L'obbiettivo isolato, precedentemente descritto  $F/4-f=30$  mm, con raccordo nor-

male per essere usato su altri ingranditori per formato  $24 \times 36$  mm (tipo Leitz ecc.).

N. di rif. 1692 Gaobb

#### SVILUPPATRICE PER GaMi 16



Questo apparecchio permette di sviluppare tutti i film negativi, invertibili ed a colori, che possono essere impiegati nella macchina fotografica GaMi 16, senza ricorrere alla camera oscura.

Tutte le operazioni vengono eseguite senza mai toccare il film poichè il suo svolgimento dal caricatore avviene automaticamente nell'interno della sviluppatrice stessa.

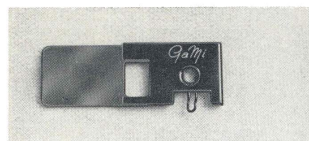
La quantità di liquido necessaria è minima (circa 100 cc.) e quindi i bagni possono essere rinnovati dopo ogni operazione con minima spesa.

I bagni possono essere termostattizzati. Il film, una volta passato nell'interno della sviluppatrice, si trova avvolto a spirale su di un cilindro, con la superficie sensibile all'esterno. Esso quindi può essere esposto facilmente a quella seconda illuminazione che è necessaria per l'inversione dell'immagine nei film invertibili ed a colori.

1 - Coperchio apribile col gancio 2. 14 - Recipiente esterno. 5 - Cilindro a spirale. 18 - Foro per liquido termostatico.

N. di rif. 1660 Gasvi

#### FILTRI DI COLORE PER GaMi 16



• Giallo . . . . . fattore 2-3  
N. di rif. 1653 Gagia

• Rosso . . . . . fattore 6-10  
N. di rif. 1654 Gares

• Verde . . . . . fattore 2-5  
N. di rif. 1655 Gaver

• Bleu-pallido per luce artific. fattore 2-3  
N. di rif. 1656 Gablu

• Per ultravioletto U. V. . . . . fattore 1  
N. di rif. 1684 Gauv

Sulla fronte della GaMi 16, davanti all'obbiettivo può essere fissato un filtro di colore da usarsi in luogo di quello giallo incorporato. La macchina può essere chiusa anche con lo schermo innestato. I filtri che normalmente si possono fornire, in vetro colorato in massa e otticamente lavorati sono:

#### LENTI CORRETTIVE PER LA VISTA PER GaMi 16

Il mirino della GaMi 16 può essere messo a fuoco per compensare i difetti della vista, fra  $+3$  e  $-3$  Diottrie. Con l'applicazione nel mirino di piccole lenti correttive da  $+3$  o da  $-3$  Diottrie, si può aumentare la compensazione fino a circa  $+6$  o  $-6$  Diottrie.

Lente correttiva da  $+3$  Diottrie.  
N. di rif. 1657 Gapù

Lente correttiva da  $-3$  Diottrie.  
N. di rif. 1658 Gamen

#### PRISMA PER MIRINO PER GaMi 16

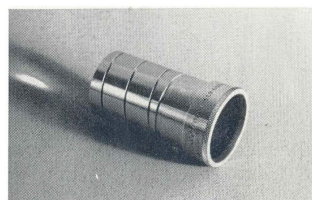
Per eseguire fotografie senza volgersi direttamente verso il soggetto, si applica al mirino della GaMi 16 un piccolo prisma

che devia ad angolo retto la direzione della presa.  
N. di rif. 1659 Capris

#### OBBIETTIVO PER PROIEZIONE PER GaMi 16 - PROL -

Per la proiezione delle foto-colore GaMi 16, montate nei telaietti GaMi, può essere impiegato qualsiasi proiettore per il formato  $24 \times 36$  mm in telaietti  $5 \times 5$  cm. E' stato appositamente studiato un'obbiettivo di fuoco più corto del normale che permette di ottenere alla stessa distanza di proiezione un quadro all'incirca uguale a quello ottenuto dai fotogrammi standard  $24 \times 36$  mm.

Detto obbiettivo "GaMi PROL", di alta luminosità -  $f/1,9$  - ha la lunghezza focale di 5,5 cm.



N. di rif. 1691 Capro



# CYCLOPE

DIXIÈME ANNÉE

ISSN 1145-9387

L'AMATEUR D'APPAREILS PHOTOGRAPHIQUES



*Le GAMI 16, ERMANOX, PRIMARFLEX, LINHOF  
TECHNIKA SAGA, CLUB CYCLOPE, CALENDRIER, Etc.*

N° 42

MARS - AVRIL 99

60 FF - 9 euro



tater que la méthode était relativement précise, compte tenu de l'erreur humaine dans l'interprétation du seuil de lisibilité des chiffres du posemètre, l'erreur maxi ne dépassait pas 1 IL.

### **Entraînement du Film, déclenchement, réarmement de l'obturateur**

Le Gami16 utilise du film 16mm conditionné en cassette spéciale. Le dos de l'appareil s'ouvre et se ferme avec un verrou fendu pour pièce de monnaie.

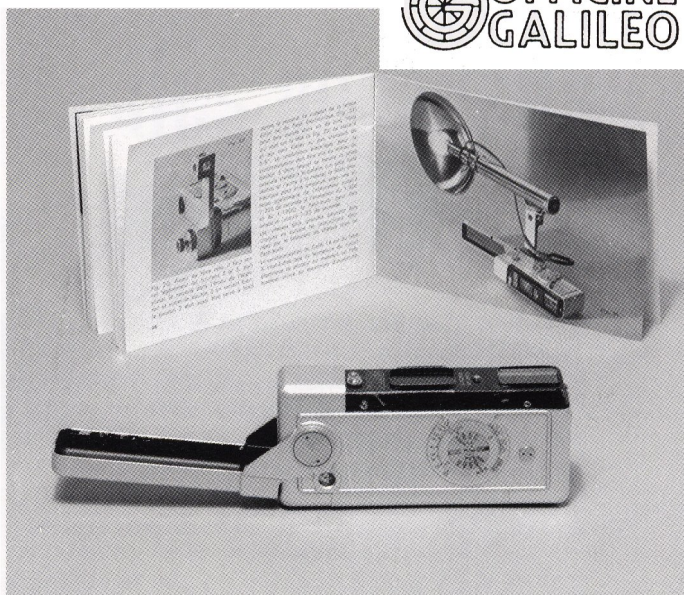
L'axe d'entraînement du film est monté sur un bras qui pivote hors du boîtier pour faciliter la mise en place de la cassette. Le compteur de vues est lissable sous le boîtier, la remise à zéro est automatique à l'ouverture du dos.

Un petit voyant près du déclencheur indique: point blanc l'appareil est chargé; point rouge l'appareil est vide ou le film est terminé. Entraînement et réarmement sont assurés par un puissant moteur à ressort.

Celui-ci permet la prise de 3 vues successives ou non.

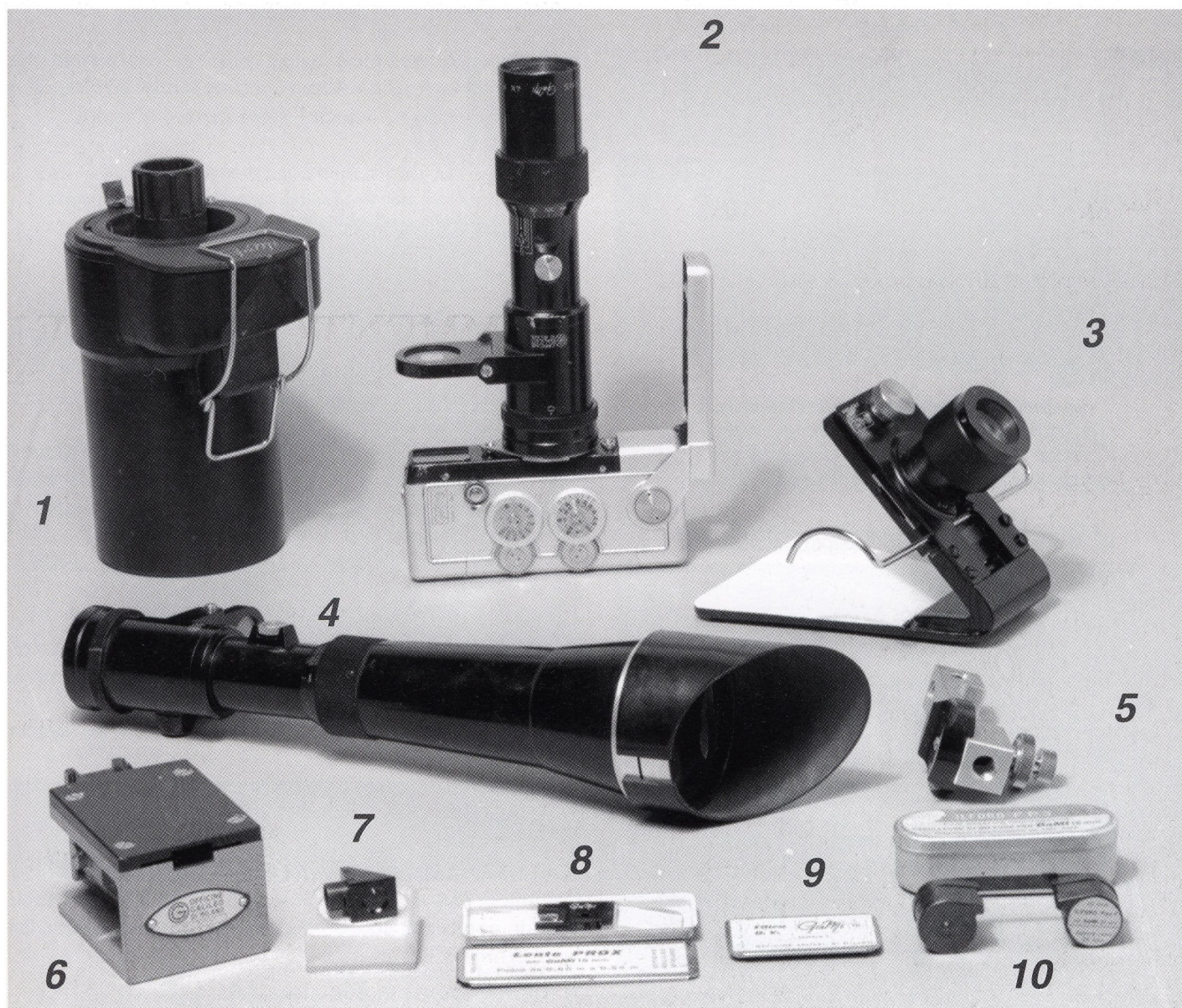
Le remontage du ressort se fait par la fermeture du capot poignée.

**OFFICINE  
GALILEO**



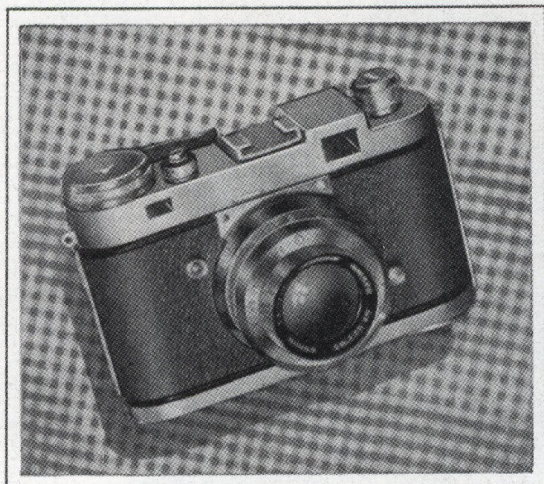
*Le GaMi 16 avec ses accessoires:*

- 1- Cuve pour le développement des films; 2- GaMi 16 avec le téléobjectif afocal 4X; 3- Loupe pour films et cadres; 4- téléobjectif afocal 8X; 5- support de fixation avec contact synchro flash; 6- coupeuse pour film 35mm-16; 7- Viseur angulaire à 90°; 8- close-up lens avec correction de la parallaxe; 9- filtre UV; 10- chargeur de film avec sa boîte;**  
(Collection Claudio RUSSO, photo GHNASSIA)





**Condor** 24 x 36



des appareils  
de classe ...

**CONDORETTA.** Objectif TEROG bleuté, 1:4 de F: 40<sup>m/m</sup>  
Obturateur central APLON-RAPID de 1 seconde au 1/300<sup>e</sup>.

**CONDOR Jr.** Objectif ELIOG bleuté, 1:3,5 de F: 50<sup>m/m</sup>  
Obturateur central ISCUS-RAPID de 1 seconde au 1/500<sup>e</sup>.

**CONDOR Ib.** Objectif ELIOG bleuté, 1:3,5 de F: 50<sup>m/m</sup>  
Télémètre couplé. Obt. central APLON-RAPID de 1 sec. au 1/500<sup>e</sup>.

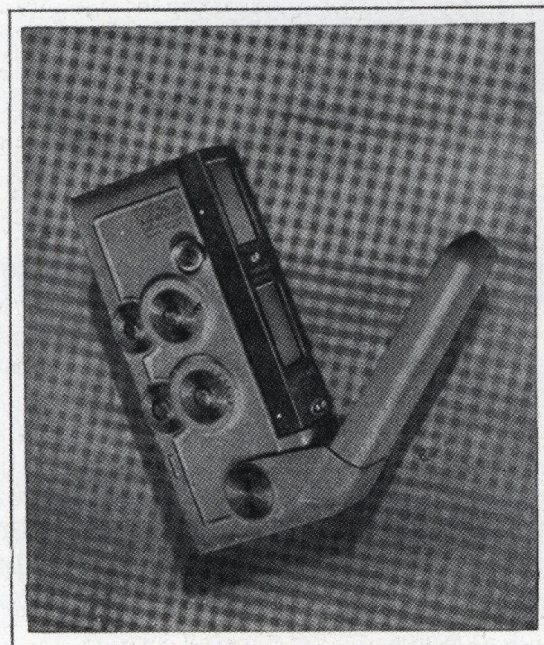
**CONDOR Ic.** Objectif ELIOG bleuté, 1:2,8 de F: 50<sup>m/m</sup>  
Télémètre couplé. Obturateur central APLON-PAPID de 1 seconde au 1/500<sup>e</sup>. Retardateur.

**CONDOR II.** Objectif ESAOG bleuté, 1:2 de F: 50<sup>m/m</sup>  
Télémètre couplé. Obturateur central ISCUS-RAPID de 1 sec. au 1/500<sup>e</sup> - Levier spécial pour l'entraînement simultané et rapide du film et de l'armement de l'obturateur.

► ACCESSOIRES POUR APPAREILS **Condor**

Filtres colorés \* Lentilles à portrait.  
Stéréographe pour prise de vues en relief.  
Stéréoviseurs \* Projecteurs épidiastoscopiques.  
Accessoires pour la projection en relief.

à la perfection !



**Gami** 16

**pour film 16 mm**

Appareil d'un encombrement très réduit. (115 x 55 x 27<sup>m/m</sup>)  
Objectif ESAMITAR bleuté, à 6 lentilles. 1:1,9 de F: 25<sup>m/m</sup>  
Obturateur d'objectif, métallique: de 1/2 seconde au 1/1000<sup>e</sup>  
Posemètre automatique incorporé.  
Viseur-Télémètre (0m 50 à l'infini) - Correction automatique de la parallaxe.  
Filtre incorporé, agissant automatiquement sur le posemètre pour la correction du temps de pose.  
Moteur à ressort pour séquence rapide.  
Synchroniseur pour flash.

► ACCESSOIRES POUR **Gami**

Chargeurs et recharges \* Coupe-film.  
Visionneuse \* Branchement flash.  
Agrandisseur \* Appareil à bobiner les films.  
Appareil pour développer les films.

PRODUCTION

OFFICINE  
GALILEO (Italie)

DISTRIBUÉE PAR

**GALILEO S.A.**

5, Rue Lincoln, PARIS-8\* \*Bor. 27-16 et 59-84

1957 - Publicité de GALILEO S.A. dans un magazine français.

Les deux fleurons de l'époque, le CONDOR (Cyclope vous a présenté les Condor dans les numéros 14 et 15-16) et le GAMI 16.

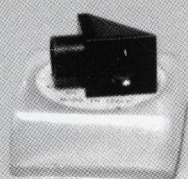


# 1955, naissance du GaMi 16, un petit dans la cour des grands

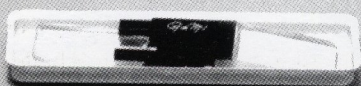
OFFICINE  
GALILEO



7



8



9

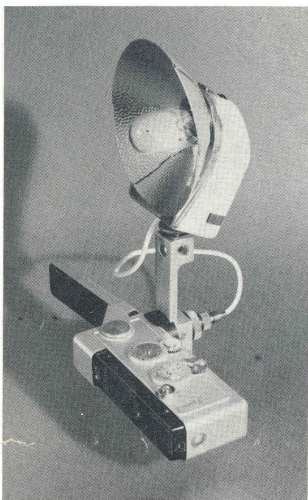


10

7- Viseur angulaire à 90°; 8- close-up lens avec correction de la parallaxe; 9- filtre UV; 10- chargeur de film avec sa boîte;  
(Collection Claudio RUSSO, photo GHNASSIA)



## ATTACCO PER LAMPO PER GaMi 16



La GaMi 16 ha una sincronizzazione interna tipo X i cui terminali, per il collegamento alla lampada-lampo, si trovano sul fondo della madrevite per il fissaggio al treppiede.

Per usare una lampada-lampo bisogna impiegare un **raccordo per lampo** che si fissa alla GaMi 16 mediante una vite che sulla testa porta un innesto normale per il conduttore elettrico per la sincronizzazione. Qualsiasi tipo di lampada-lampo, flash-bulb od elettronico, può essere impiegato. Il raccordo per lampo porta una testa con 5 fori filettati da 3/8" ai quali può essere fissata nella posizione più opportuna la lampada-lampo ed eventualmente anche il treppiede.

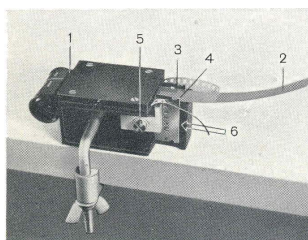
### Il solo raccordo

N. di rif. 1651 *Galam*

**Microlampo sincronizzato** con accensione tipo batteria-condensatore (esclusa la batteria) corredato di riflettore pieghevole e **raccordo** per GaMi 16, come sopra descritto.

N. di rif. 1693 *Gasin*

## TAGLIAFILM PER GaMi 16



Questo accessorio per camera oscura serve per ritagliare una striscia di film della larghezza di 16 mm. da qualsiasi film da 35 mm. in spezzoni o montato in caricatori normali tipo Condor, Leica, Contax ecc. Non è impiegabile normalmente per tagliare lunghezze superiori a 1,50 m. L'apparecchio viene fissato al tavolo di lavoro con viti o con l'apposito morsetto.

1 - Slitta. 2 - Film. 3 e 4 - Lame da rasoio. 5 - Fissalame.

N. di rif. 1682 *Gateg*

## INGRANDITORE PER GaMi 16

Si tratta di un apparecchio studiato apposta per ingrandire i fotogrammi su film da 16 mm ottenuti con la macchina GaMi 16 e con altre di simile formato.

### Caratteristiche principali sono:

- ★ Nuovo dispositivo per la messa a fuoco che esclude ogni controllo a vista.
- ★ Sistema ottico specialmente studiato per il piccolo formato.
- ★ Solidità e stabilità del complesso.

A queste, che lo differenziano da qualsiasi ingranditore, si aggiungono molte altre caratteristiche che lo rendono pratico ed efficiente.

La base, di legno compensato e incorniciato, ha le dimensioni di 45x45 cm.

La colonna, di tubo rettificato e di grande diametro, alta 65 cm, è smontabile.

La testa portalamada, a doppia parete, efficacemente ventilata, può contenere una lampada di oltre 60 Watt su portalamada centrabile e regolabile in altezza.

Il braccio a cerniera che tiene la testa permette di sollevarla per la pulizia della lente condensatrice e del fotogramma.

La luce radente che investe il film rivela, e permette di togliere, ogni traccia di polvere ed ottenere così ingrandimenti assolutamente privi di macchioline e di altri segni bianchi.

### Sistema di messa a fuoco

Il braccio che regge la testa dell'ingranditore può essere fissato ad altezze diverse definite da una serie di numeri incisi sulla colonna.

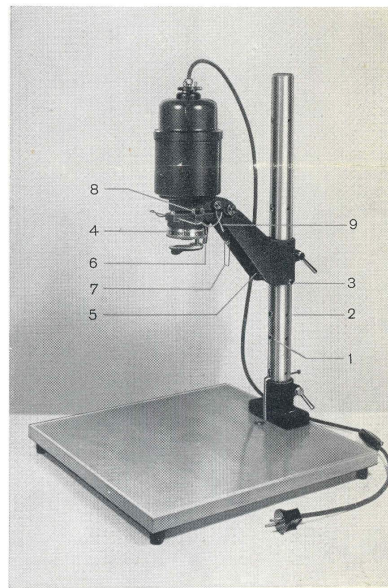
Fermando il braccio ad una delle altezze contrassegnate da 1 a 6 sulla colonna e facendo segnare lo stesso numero al dispositivo di messa a fuoco dell'obiettivo, si ottiene uno degli ingrandimenti predisposti.

La corrispondenza tra l'altezza della testa

e la posizione dell'obiettivo, ciò che realizza la messa a fuoco, può dirsi perfetta in quanto essa è stata aggiustata in fabbrica con l'aiuto di un apposito microscopio.

Ove l'operatore voglia, può fissare la testa a qualsiasi altezza della colonna ed usare liberamente il sistema elicoidale per la messa a fuoco dell'obiettivo.

Per ingrandimenti maggiori di quanto consenta l'altezza della colonna si può girare la testa dell'ingranditore all'esterno della tavoletta di base.



1 - Fori numerati. 2 - Colonna. 3 - Spina. 4 - Obiettivo. 5 - Braccio. 6 - Portafiltro. 7 - Gancio. 8 - Portafilm. 9 - Leva liberafilm.

## APPAREGGIO PER COPIE E RIPRODUZIONI

Per la riproduzione di documenti, disegni, illustrazioni, piccoli oggetti ecc. è stato costruito questo apparecchio che permette di utilizzare la GaMi 16 fissata ad una colonna che si eleva su di una base di legno identica a quella dell'ingranditore.

Il braccio di questo apparecchio serve per

sostenere la GaMi 16 con l'obiettivo rivolto in basso mediante una vite con raccordo per lampo che permette l'uso del flash elettronico per l'illuminazione dell'oggetto. Lo stesso braccio porta un cannocchiale orizzontale in corrispondenza del mirino della GaMi 16 che permette di impiegare il mirino ed il telemetro della stessa GaMi 16 per la messa a punto della presa con la correzione automatica della parallasse.

La massima altezza dal piano di base a cui può essere fissata la GaMi 16 è di 75 cm.

Per fotografare da altezze inferiori ai 50 cm è necessario impiegare la **lente di avvicinamento Prox** con la quale si può arrivare fino a circa 25 cm.

Questo apparecchio per copiare permette un facile lavoro in serie poiché essendo solidissimo non si sregola ricaricando la GaMi 16 con la rapida chiusura dello sportello ogni tre fotografie, nè rinnovando il caricatore di film attraverso lo sportello posteriore della GaMi 16 che rimane perfettamente accessibile dal di sopra.

N. di rif. 1671 Garip

Il solo braccio con cannocchiale da adattarsi alla colonna ed alla base dell'ingranditore per GaMi 16.

N. di rif. 1672 Gabra

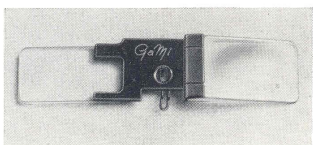
## LENTE D'AVVICINAMENTO - PROX -

Per l'esecuzione di fotografie a distanza inferiore a 50 cm, limite minimo di distanza per la GaMi 16, si usa una lente ausiliaria, da montarsi davanti all'obiettivo, che permette di porre a fuoco oggetti che si trovino a distanza compresa fra 50 e 25 cm.

La lente di avvicinamento è fissata ad una montatura insieme ad un'altra lente che viene a trovarsi davanti alla finestra anteriore del mirino. Questa seconda lente agisce sul telemetro in modo che esso continui a funzionare regolarmente in accop-

piamento con l'obiettivo tra le distanze di 50 e 25 cm, mantenendo la correzione automatica della parallasse.

N. di rif. 1652 Galen



## VISORE PER FILM GaMi 16

Questo piccolo apparecchio, che consta essenzialmente di una lente applanatica, di una base e di due speciali supporti, serve per due scopi:

**1. Esaminare i film negativi ed a colori** ottenuti con la GaMi 16 onde scegliere i fotogrammi che possono venire ingranditi e quelli che possono venire montati nei telaietti per proiezione. I fotogrammi prescelti vengono identificati con una punzonatura a lunetta su di un margine.

L'apparecchio può essere appoggiato su di un tavolo in modo che la luce proveniente da una finestra o da una lampadina, colpisca la superficie bianca superiore della base. Questa, diffondendo la luce, permette una visione chiara e non disturbata da ombre e riflessi, attraverso la lente. E' questa costituita da tre elementi incollati secondo la formula di Steinheil particolarmente corretta e luminosa, con potere di ingrandimento di circa 7x, montata in un oculare a movimento elicoidale per la messa a fuoco.

La placchetta anteriore fa agire un piccolo punzone che può incidere una lunetta sull'orlo del film.

**2. Osservare i fotogrammi a colori** già montati nei telaietti.

L'apparecchio viene disposto come nella figura 2.

Il passavedute è costruito in modo da permettere l'osservazione ed il rapido scambio dei fotogrammi montati nei telaietti di cartone, o di metallo, o di materia plastica, nel formato standard di 50x50 mm (ossia 2" x 2").

Si appoggia da un lato nella slitta il primo telaio e lo si spinge col dito verso il centro, sotto l'oculare. Il margine della slitta arresta il dito quando il telaio è giunto al centro, in posizione esatta perché la foto a colori venga osservata attraverso l'oculare.

Si possono così passare molti telaietti infilando uno dopo l'altro nel passavedute da un lato e spingendoli verso il centro.

I telaietti poi vengono automaticamente spinti fuori dall'altra parte e liberati. Questo visore riesce particolarmente utile poiché la lente ha un potere tale da presentare l'immagine di un fotogramma GaMi grande all'incirca come una cartolina illustrata, con un dettaglio perfetto ed una ottima luminosità.

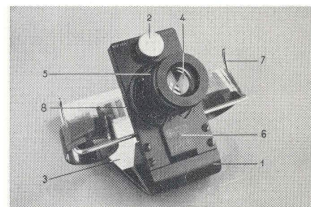


Fig. 1

1 - Supporto. 2 - Vite di collegamento. 3 - Base diffondente. 4 - Lente di Steinheil. 5 - Montatura oculare. 6 - Perforatore. 7 - Reggifilm. 8 - Fessura. 9 - Telaio perforato.

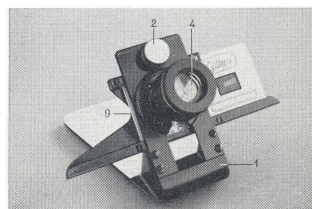


Fig. 2

Visore per film e fotocolori.

N. di rif. 1681 Gavis



### TELEOBIETTIVO PER GaMi 16 - F/4 - ingrandimento 4 x



Per fotografie a grande distanza di paesaggi, architetture, animali ecc. e per ritratti, si usa un teleobiettivo afocale da applicarsi alla fronte della GaMi 16. Questo ha una luminosità di F/4 ed ha un'ingrandimento corrispondente a quello d'un teleobiettivo di  $f = 200$  mm, applicato ad una macchina fotografica normale per formato  $24 \times 36$  mm. Una lente ribaltabile, applicata al tubo, che lavora in combinazione col mirino della GaMi 16, ingrandisce l'immagine data dal mirino. L'esposimetro incorporato nella GaMi 16 si usa ancora con questo teleobiettivo.

N. di rif. 1665 Gatel

### ADATTATORE PER MICROSCOPIO PER GaMi 16

La GaMi 16 può essere impiegata come camera microfotografica mediante uno speciale adattatore che si fissa al tubo portaoculare di qualsiasi microscopio. L'esposimetro incorporato nella GaMi rimane efficiente anche nell'impiego microfotografico e la regolazione del tempo di posa resta automatica.



E' realizzato così per la prima volta un complesso microfotografico, leggero e portatile, con esposimetro automatico incorporato.

Lo speciale adattatore per micrografia porta lateralmente una camera oscura conica con vetro smerigliato per la messa a fuoco del soggetto mediante la vite micrometrica del microscopio. L'adattatore stesso porta superiormente un morsetto per fissare la GaMi ed inferiormente uno speciale oculare che si infila nel tubo portaoculare del microscopio in sostituzione dell'oculare usato per la visione.

Il corpo principale dell'adattatore consiste in un corsoio a specchi che permette di eseguire successivamente le seguenti operazioni:

1. Inquadratura dell'immagine e messa a fuoco sul vetro smerigliato.
2. Regolazione del tempo di esposizione mediante l'osservazione dell'esposimetro incorporato nella GaMi.
3. Scatto di una, due o tre microfotografie mediante i dispositivi automatici caratteristici della GaMi.

N. di rif. 1674 Camic

### BOBINATRICE PER GaMi 16

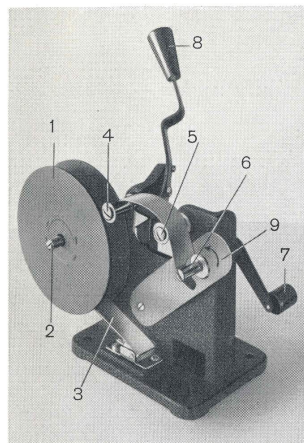
Serve per avvolgere ed introdurre nei caricatori della macchina fotografica GaMi 16 la quantità di film negativo necessaria. Può essere fissata al tavolo di lavoro con viti o con un morsetto. Si deve par-

tire da film da 16 mm, avvolto in bobine da 30 metri (100 Feet) o meno. Ove il film non fosse in bobina metallica lo si può montare in una apposita bobina scomponibile formata da due dischi che possono essere separati l'uno dall'altro perchè fissati ad un mozzo composto da due cilindri sfilabili.

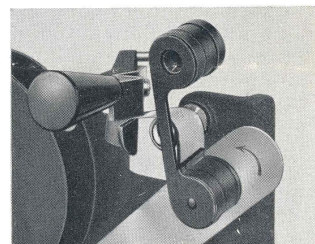
Una di queste bobine è compresa nel corredo della bobinatrice.

Il taglio a «S» dato dal coltello della taglierina serve tanto per il principio che per la fine di ogni film. Esso si adatta all'innesto sul mozzo avvolgitore del caricatore, all'innesto sulla sviluppatrice automatica GaMi e serve per l'arresto automatico alla fine del film nella macchina fotografica GaMi 16.

N. di rif. 1680 Gabol



1 - Bobina scomponibile. 2 - Perno. 3 - Pattino. 4 e 5 - Rulli di scorrimento. 6 - Perno avvolgitore. 7 - Manovella. 8 - Taglierina. 9 - Estrattore.

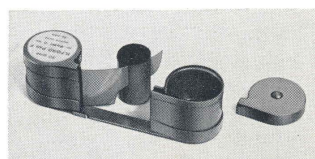


### CARICATORI VUOTI PER GaMi 16

Possono venir caricati con qualunque tipo di film mediante la bobinatrice per GaMi 16.

Caricatore vuoto N. di rif. 1668 Gaspo

**N.B.** - I caricatori pronti per l'uso, già confezionati con film delle migliori Case, in bianco e nero, colore invertibile e negativo, microfilm, sono elencati in altro listino.



## Tagliafilm per GaMi 16

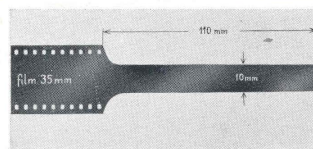
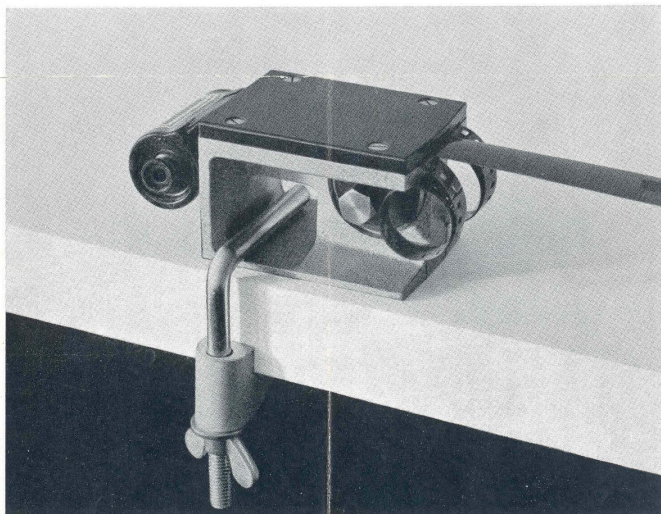


fig. 2

Questo accessorio per camera oscura serve per ritagliare una striscia di film della larghezza di 16 mm da qualsiasi film da 35 mm in spezzoni o montato in caricatori normali tipo Condor, Leica, Contax ecc. Non è impiegabile normalmente per tagliare lunghezze superiori a 1,60 m.

L'apparecchio viene fissato al tavolo di lavoro con viti o con l'apposito morsetto. Il principio del film da 35 mm deve essere conformato secondo la figura 2 per l'inizio del taglio ed infilato nella scanalatura fino a che la linguetta esca fra le due rotelle.

Si afferra la linguetta e si tira lentamente fino a quando le due rotelle iniziano i tagli laterali. Se il film è in un caricatore normale chiuso, questa operazione può esser fatta alla luce. Assicurati che il taglio può avvenire regolarmente si deve poi **procedere nell'oscurità**. Si tira con un po' di forza, con moto uniforme e rettilineo la linguetta, possibilmente senza fermarsi e senza deviare, fino a quando tutto il film è stato tagliato. Se si tratta di

film da 20 fotogrammi, si riesce a tagliarlo tutto in una sola tirata e si ottiene quanto basta per un caricatore GaMi da 30 fotogrammi. Se si tratta di film in caricatori da 36 fotogrammi, sarà necessario tirare in due o tre riprese. Per far ciò dopo la prima ripresa conviene arrotolare il film tagliato e tirare il tratto successivo afferrando il rullo così formato senza mettere le dita sulle facce della pellicola. In questo caso si ottiene la carica di N. 2 caricatori GaMi da 30 fotogrammi. Quando il film è finito si strappa dal caricatore.

Durante tutte le operazioni conviene evitare che il film si arrotoli a spirale per conto proprio; perciò bisogna avvolgerlo su se stesso a rullo, tenendolo teso, prima di liberare l'estremità tenuta dal tagliafilm.

N. di rif. 1682 Gateg



#### Film advance

The film is set in its proper seat (8) after the light-housing has been lifted. In this position the film is illuminated and can be carefully cleaned.

In order to advance the film from one exposure to the next one press lever (9) which releases the film from the pressure exerted by the light-housing. If a GaMi viewer has been used to examine the film the shots chosen to be enlarged get marked with a special dot which will be projected by the enlarger so that the proper shots are easily selected.

#### Use of easel

If one uses easel, the plane on which the sensitive paper lays may be slightly higher than the plane of the instrument. This would throw off the calibration of the automatic focussing device. The calibration can be reset by the following operation.

Turn lever (10) to release the locking on the column (see fig. 3) and lift column slightly until the indicator pin (12) touches slightly the surface of the easel. In this position the column is locked again tightening lever (10).

The lower edge of the pin (12) always indicated the projection plane for which the enlarger is calibrated.

#### Screens

A rotating screen holder located under the lens can hold 50 mm color or diffusing screens in glass or film.

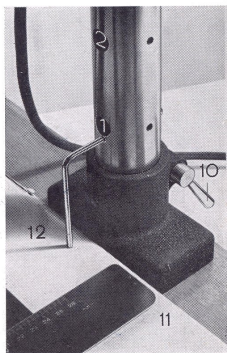


fig. 3

OFFICINE GALILEO DI MILANO - MILANO - ITALY

Tip. A. Lucini & C. Milano - Printed in Italy

## INSTRUCTIONS

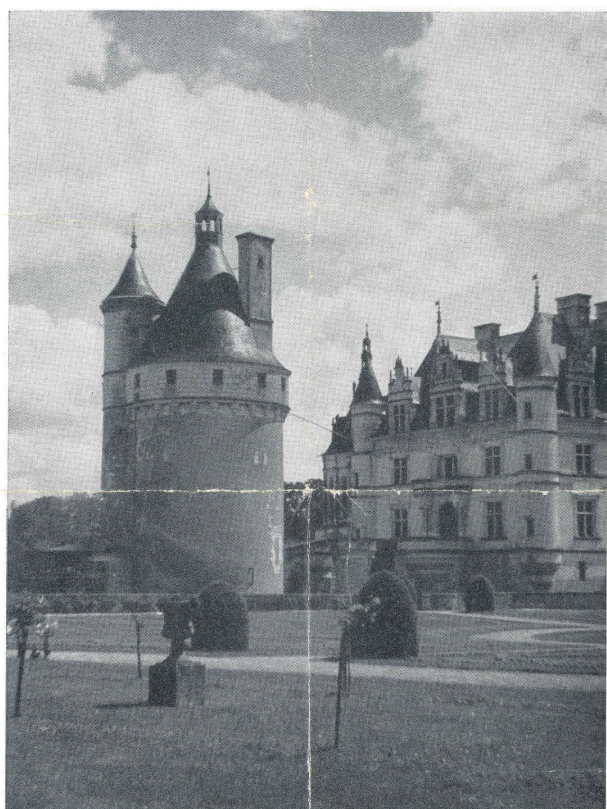


# 2



## Enlarger

OFFICINE GALILEO DI MILANO - VIALE EGINARDO 29 - MILANO



Fotografia eseguita con macchina GaMi 16 mm

OFFICINE GALILEO DI MILANO - VIALE EGINARDO 29 - MILANO

ISTRUZIONI

*GaMi* 16

4



**Tagliafilm**

OFFICINE GALILEO DI MILANO - VIALE EGINARDO 29 - MILANO



## Instructions GaMi 16 Spoolwinder

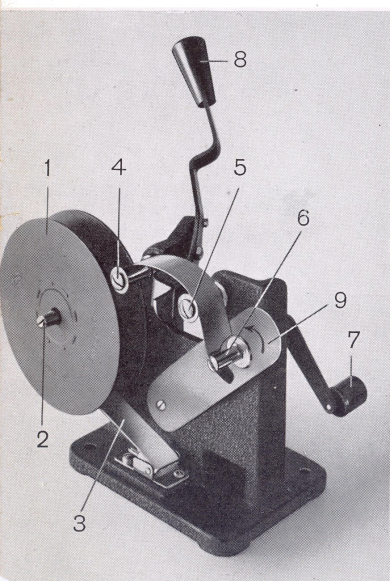


fig. 1

The spoolwinder has been designed to load the GaMi 16 subminiature camera magazines with proper length of 16 mm negative film.

The spoolwinder can be attached to table or bench by a special clamp (fig. 4) or secured to it by means of four screws through the four screw-holes on the base. The film can be taken from regular reels up to 100 feet. If the available film does not already come on a standard metal spool it can be mounted on a special reel (1) composed of two discs which can be separated. Once the reel is disassembled, the film roll can be dipped on one disc and then assemble the other disc on it. These operations as well as all the following must be performed in total darkness. Reel (1) fig. 1, containing the film must be mounted on axle (2) after lever (3) has been lowered. The tail of the film, properly tapered, by the cutter (8) is passed through rollers (4) and (5) and finally inserted into the slit of axle (6).

**The emulsion side of the film should face upwards.** If this does not happen, reel (1) must be turned upside down and reinserted on axle (2).

By turning handle (7) downwards it is easy to have the slit in axle (6) vertically, which facilitates the insertion of the film. Turn handle (7) as indicated by arrow, so that the sensitive side of the film faces internally. 22 complete turns of the handle will roll on axle (6) the length of film necessary to load a magazine for 30 exposures (length of film should be about 80 cm).

Now take a magazine, take off cap from the spool which has no driving axle, and slip spool on the film roll which has been wound on axle (6) fig. 2.

Lower knife (8) and cut film. Turn handle

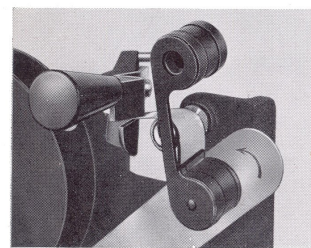


fig. 2

(7) a couple of turns backwards so that the film roll loses its tension.

Now push plate (9) **outwards**, keeping the spool against it, until axle (6) is completely cleared.

Now the film load is completely and freely contained in the spool, and the cap can be replaced.

Now the magazine can be brought in dimmed daylight for the operation which follows. The taper « S » cut which has been made by the knife (8) is used to insert the tail of the film on the driving axle of the other spool of the magazine.

The same taper cut makes the film tail useful when using the GaMi 16 tank developer, and operates the automatic lock of the GaMi 16 when all exposures are taken.

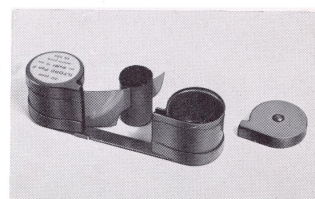


fig. 3

After inserting the tapered end of the film in the driving axle, taking care that the sensitive side faces the axle, bend the protruding portion of the tail sharply backwards. Introduce the axle back in to the cartridge and replace cover.

Turn the axle half turn to check that the film is firmly grasped and does not slip and that advancement is easy enough.

Keep the loaded magazine wrapped in light paper or tinfoil, keep close package with scotch tape or other adhesive.

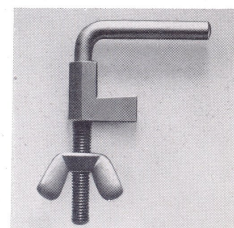


fig. 4

## Instructions **GaMi 16 Film Cutter**

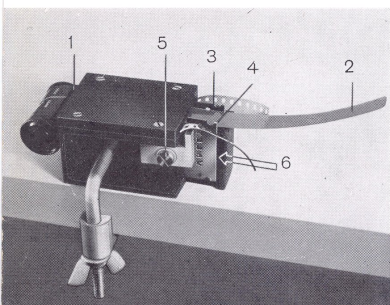


fig. 1

The film cutter has been designed with the purpose of providing an easy method of cutting out a 16 mm unperforated strip from any regular 35 mm film, in strips or cartridges. It does not cut strips longer than 1.50 meters.

The device can be secured to bench or table by clamp (see fig. 2) or screws.

The tail of the 35 mm film must be taped as shown in fig. 1. The tail is engaged in slit (1) Fig. 2, and pushed until it protrudes on the other side of the box between the two razor blades (3) and (4). Pull tail (2) gently until blades engage in film.

If the film is drawn from a regular cartridge these operations may be performed in daylight. From now on the operation must proceed in complete darkness.

Pull now tail (2) steadily, without deviation or stops until the entire strip is cut. If the cartridge is a 35 mm - 20 exposures, it can be cut in one single pull, and the strip will be sufficient to load a 30 exposure GaMi magazine.

If the cartridge is a 35 mm - 36 exposures, two pulls will be necessary. After the first pull roll the strip already cut and grip the roll for the second pull taking care not to lay fingers on the sensitive surface.

When the cut is completed, twist cartridge and tear off from the film. A 35 mm - 36 exposure cartridge will load two GaMi 30 exposures magazine.

During all operations avoid that film should twist into a spiral, it must be therefore wound up into a roll before liberating the end held by the cutter.

### Change of blades

If replacement of blades is necessary, take care that they are set into the proper position, that is with the cutting edge well set against the body of the instrument. Therefore, press the blades and apply gentle knock in the direction of arrow (6) before tightening screws (5).

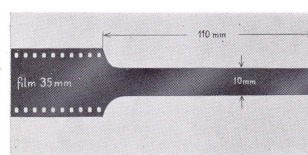


fig. 2



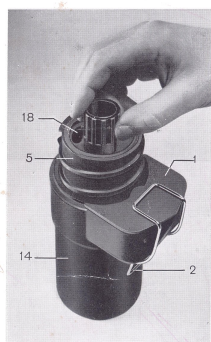


fig. 8

Gently rotate gripping knob (4) to provide proper agitation.  
To take off liquid just capsize tank bottom up. Repeat procedure with distilled water,

fixing solution or any other bath necessary.

#### Temperature.

A thermometer can be introduced in the central hole of knob (4) or in (16). Warming or cooling water can be introduced in (18), figure 8. For instance, during summer this temperature equalizing bath is necessary to avoid shrinking effects on emulsion.

#### Washing.

Final washing of films can be done in the tank by pouring running water in the central hole (4) or by extracting cylinder (5) by releasing spring (3) and put it under running water. Before drying, final washing in distilled water for a few minutes is advisable.

#### Drying.

After final washing the film can be taken off the cylinder. Excess water can be wiped out with dust free moist doeskin or a moist viscose sponge.

Dust is the most dangerous enemy of subminiature film as it can cause scratches which show up in enlargements.

The film can be dried hanging vertically from a pincer or even better keeping it stretched vertically between two pincers.



Executed by GaMi 16 mm

OFFICINE GALILEO DI MILANO - MILANO - ITALY

## INSTRUCTIONS

*GaMi* 16

1



## Daylight Developing Tank

OFFICINE GALILEO DI MILANO - VIALE EGINARDO 29 - MILANO



Executed by GaMi 16 mm

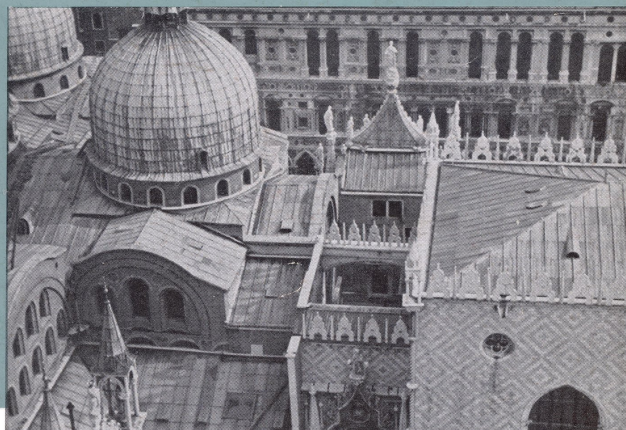
OFFICINE GALILEO DI MILANO - MILANO - ITALY

Tip. A. Lucini & C. Milano Printed in Italy

## INSTRUCTIONS



# 3



## Spoolwinder

OFFICINE GALILEO DI MILANO - VIALE EGINARDO 29 - MILANO



Instructions for the use of the Daylight Developing Tank

This daylight developing tank can be used to develop all negative films, black and white, reversible or color, used with the GaMi Camera, without any need of a dark room. All operations take place without touching or handling the film. The film magazine is introduced in the tank and the film is transferred automatically from the magazine to the developing tank. The tank uses a minimum of liquid (about 4 fluid ounces) so that a freshly prepared bath can be used every time at negligible cost. The solutions can be thermally controlled. The film, once transferred to the tank, finds itself wound on a helix at the outer surface of a cylinder, emulsion side outwards. It can thus be easily subject to the light exposure which is necessary for the inversion of reversible black and white films or for color.

Preparing the tank to receive film

Take off cover (1) - fig. 1 - pulling out hook (2). Disengage spring (3) and extract internal cylinder pulling on grippin knob (4). The internal cylinder - fig. 2 - is made of two parts (5 and 6) screwed into each other. Lifting spring (7) the two parts are set

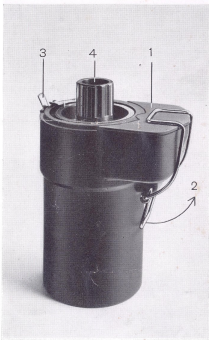


fig. 1

free and the internal cylinder can be screwed out upwards with respect to ring (6) as shown in figure 3. Looking at window (8) in figure 3, one can

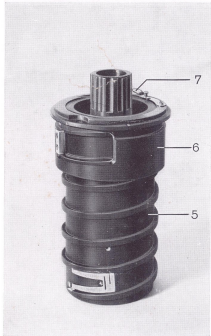


fig. 2

tridges of the magazine must be on the upper side and against the tank. Bend the tail of the film (11) backwards and replace tongue (9) in the window (8).

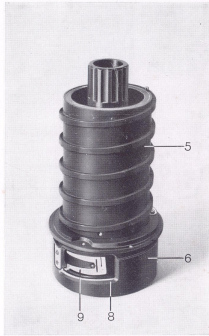


fig. 3

as in figure 1 and tighten with hook (2). Now the magazine finds itself a light tight compartment and we can proceed to transfer the film to the internal cylinder.

see the metal tongue (9) which is used to take hold of the film. The tongue can be taken out raising it from the right with a fingernail - see figure 4.

Transfer of film to the tank.

At the free end of tongue (9) there is a vertical slit (10) in which the tail end of the film (11) - fig. 5 - will be inserted. To do this hold magazine in position as shown in fig. 6. The bar connecting the two car-

Make sure tongue (9) flattens against the cylinder and turn same a bit so that the reference red dots (12 and 13) - fig. 4 - coincide.

Cylinder (5) - fig. 7 - is now ready to be inserted in the tank (14) so that the magazine will take place in its proper seat (16) and the edge of flange (17) will be engaged by spring (3).

Bring the reference yellow dots to correspond, and put the cover (1) back in place

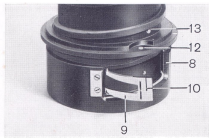


fig. 4



fig. 5

Rotate cylinder (5) fig. 8 - gently clockwise. The cylinder will enter gradually in the tank. At the end of the run resistance will be felt. Force gently. By this action the end of the film which was attached to the cartridge will be detached. We can now disengage hook (2), take off cover (1) and take out the empty magazine.

Developing

The developing solution can be poured in-

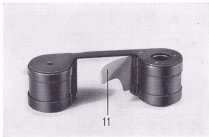


fig. 6

to (16) from where it enters the tank through a light tight labyrinth - 4 oz of fluid are sufficient. You pour liquid until it slightly overflows on the bottom of (16).

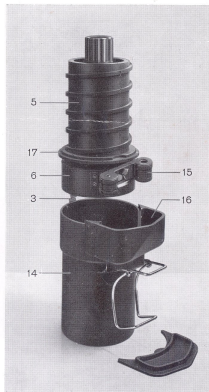
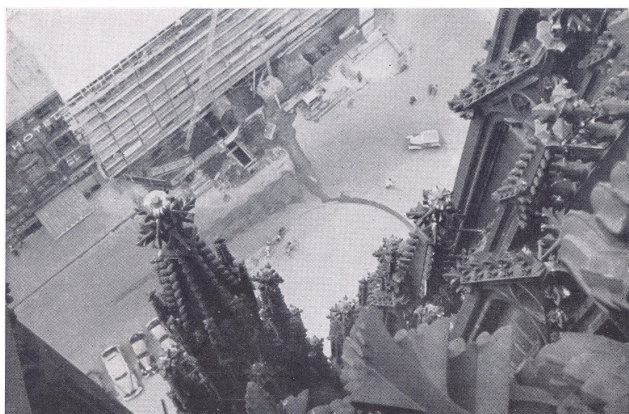


fig. 7



Executed by GaMi 16 mm

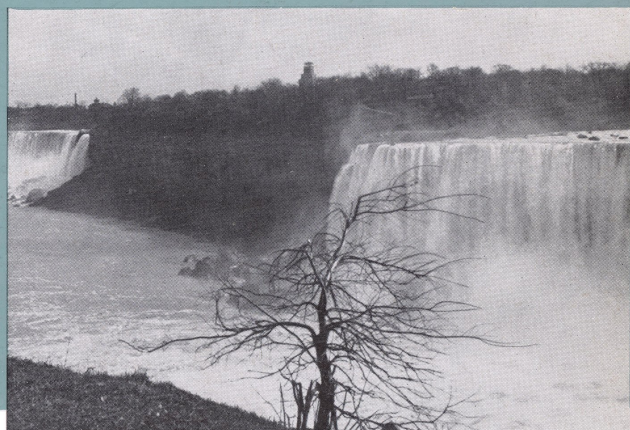
OFFICINE GALILEO DI MILANO - MILANO - ITALY

Tip. A. Lucini & C. Milano - Printed in Italy

## INSTRUCTIONS



# 4



## Film Cutter

OFFICINE GALILEO DI MILANO - VIALE EGINARDO 29 - MILANO



## Instructions GaMi 16 Enlarger

### Enlarger for GaMi 16 Subminiature Photographs.

This enlarger is designed for the specific purpose of enlarging photographs taken on 16 mm film with GaMi 16 or with other subminiature cameras.

#### Outstanding features are:

- \* Predetermined focussing system, excluding adjustments by the operator.

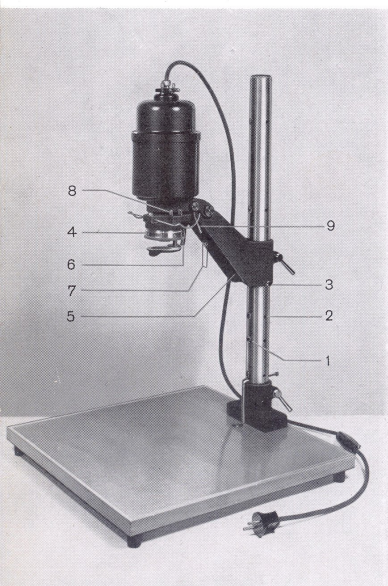


fig. 1

- \* Optical system especially designed for high correction on subminiature formats.

- \* Ruggedness and stability.

Many details in design make this enlarger unique for handiness and efficiency. The base is in plywood, dimensions 45 x 45 cm, or 18 x 18 inches. The column, ground to strict tolerances, is 26" high and detachable.

The light-housing, double walled for efficient air cooling, holds a 60 W. bulb on a socket which is centerable and adjustable in height.

The light-housing is held by a pivoting arm, so that it can be tilted upwards for inspection and cleaning of the condenser and of the negative. In the tilted position the negative is invested by grazing light which reveals the slightest specks or other defects, so that they can be easily detected and removed. This helps in obtaining enlargements free from spots and other blemish.

#### Focussing

The arm holding the head can be stopped at different heights of the column corresponding to different numbers engraved on the column. The same numbers appear on the focussing ring of the objective. By matching these two series of numbers, perfect focussing is achieved for a certain magnification.

The focussing obtained by this procedure is perfect inasmuch it has been calibrated at the factory using a microscope. Therefore, the operator should not worry about focus control if he works with the standard enlarged sizes for which the enlarger is calibrated.

If the operator, on the other hand, wants to use the enlarger to obtain enlargements intermediate of the outside the range pro-

vided for, he must proceed in the conventional way stopping the head at any height on the column and adjusting the helicoidal focussing mount of the objective until he obtains to his own judgement the best focus. For higher magnifications than those allowed by the height of the column one can turn the arm and head of the enlarger by 180° around the column and operate outside of the base.

#### Optical system

The optical system is particularly designed for high resolution on subminiature formats.

To avoid as much as possible the reproduction of grains structure, scratches or other blemish, the illumination of the negative is partly by diffusion. The lens has high resolving power, gives high contrast and is chromatically corrected over the whole format. The objective has a fixed stop, adjusted to the value found to give best results.

#### Instruction for use.

The instrument is set up as shown in Fig. 1. The numbers appearing on column (1) must appear facing towards the operator. The arm is slipped on the column from the top.

The bulb should preferably be a frosted type 60 W.

The column has a set of holes (2) in which pin (3) is inserted. Pin (3) holds the arm at a chosen height. Each hole corresponds to one of the numbers on the column. These numbers give approximately the following enlargements and formats.

| Number | Enlargement | Format in cm. | Format in inches |
|--------|-------------|---------------|------------------|
| 1      | 5,5 ×       | 6 × 9         | 2 1/2 × 3 1/2    |
| 2      | 7,5 ×       | 9 × 12        | 3 1/2 × 5        |
| 3      | 9 ×         | 10,5 × 15     | 4 × 6            |
| 4      | 11,5 ×      | 13 × 18       | 5 × 7            |
| 5      | 16 ×        | 18 × 24       | 7 × 10           |
| 6      | 21,5 ×      | 24 × 30       | 10 × 12          |

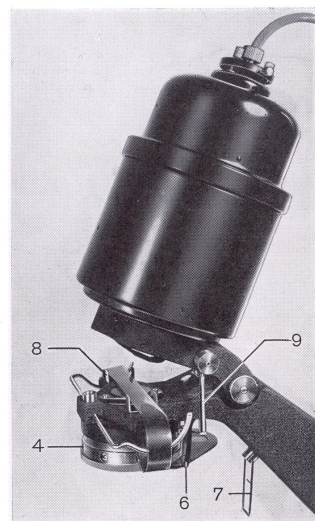


fig. 2

The lens is mounted on a ring (4) which is used for focussing adjustment.

The ring carries also a series of numbers. The number facing the operator is illuminated. This number should correspond to the one appearing on the column immediately under the arm.

To turn ring (4) figure 2, press back lever (6). When released this lever blocks the ring in the precise position which has been calibrated at the factory. In order to use the enlarger freely, without this automatic focussing system, the lever should be engaged in the eyelet (7) on the arm. In this position the helicoidal mount is free and can be turned and adjusted at the will of the operator.



# THE OFFICINE GALILEO IN FLORENCE

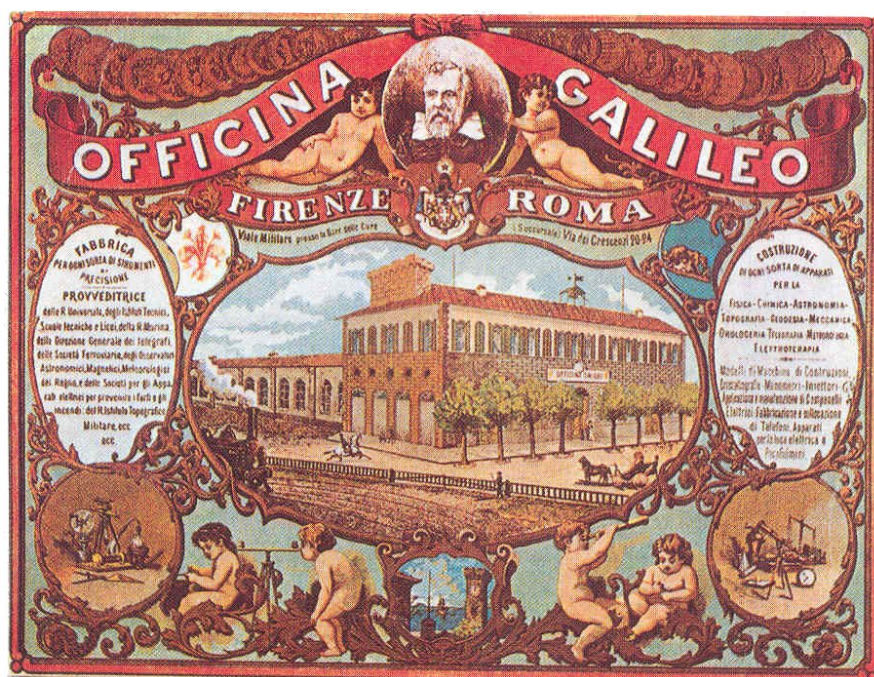


Photo from the book: *Archeologia industriale: Le Officine Galileo*, Alinea Editrice.

Between the two world wars, the Officine Galileo in Florence organized a small optics and photographic department that was not designed for commercial products, but rather to produce equipment for surveying, aerial photography and aerial photogrammetry destined predominantly for military use. Documentation of this production is based almost exclusively on catalogs published during those years by Galileo itself, and among the equipment manufactured were the phototheodolites and Santoni cameras for aerial photography and aerial photogrammetry. All these came equipped with Koristka as well as Galileo Aerostigmat lenses, and the same type of lens was also used during that period for some military aerial cameras made by other manufacturers, such as OMI of Rome.

Immediately following the second world war, Galileo was forced to give up almost all of its military orders and it decided to use the experience it had accumulated in that sector with lenses and cameras to reorganize its output for the civilian market. This was in line with the decisions made in that period by other Italian engineering

firms that had been active in war production, such as San Giorgio in Genoa or the above-mentioned OMI in Rome, but it was not a trouble-free decision. Within the Officine Galileo management there were differences of opinion which became quite marked between those involved in light engineering and lens and camera production destined for the consumer market, and those involved in heavy engineering dedicated to the industrial and textile market.

This difference of opinion mirrored the split in political views at that time and differing market strategies. Those behind the light engineering faction were managers tied to left-wing working class circles who were more open to the mass market, while those backing heavy engineering were managers connected to the interests of traditional property owners more oriented towards supplying heavy industry. Engineer Brini and the group of managers tied to the SADE wanted to aim production towards mechanical looms for textile firms in Prato and in the Veneto, while the management faction backed by the workers led by Musco and his close collaborators such as

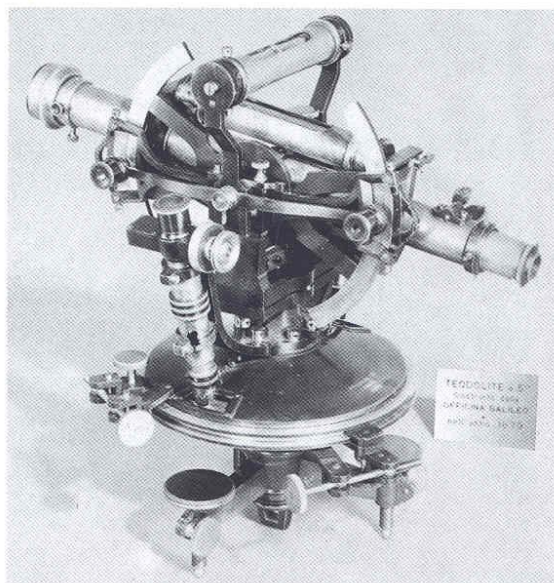
Dr. Ricci and Prof. Giotti, promoted optical and light engineering production aimed at technical and scientific development. The manufacture of cameras was part of this latter approach, but one that brought with it instability and a shift of power within Galileo.

## Towards the building of the photographic sector

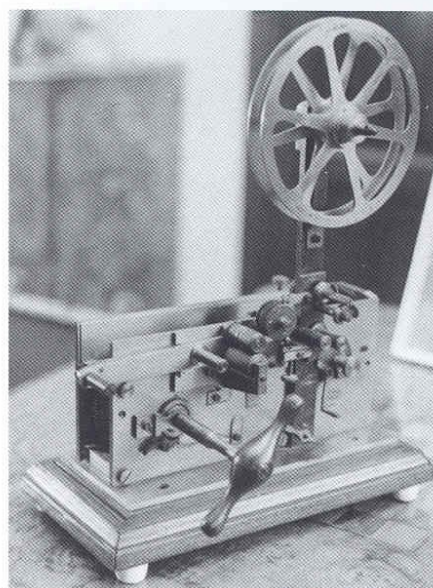
The corporate philosophy of the Officine Galileo had always been to produce everything in-house, from design to painting of the finished piece, and the photographic sector was organized on the same basis. Plus, in the late 1940s, the Officine Galileo possessed all the technical know-how required to design cameras from start-to-finish, shutters to lenses. From the standpoint of engineering design, the contribution of Engineer Santoni—the creative genius behind stereo-surveying equipment and cameras used for aerial and aerial photogrammetric shooting—was decisive.

The engineering skill of the Galileo work force also formed the basis for the decision

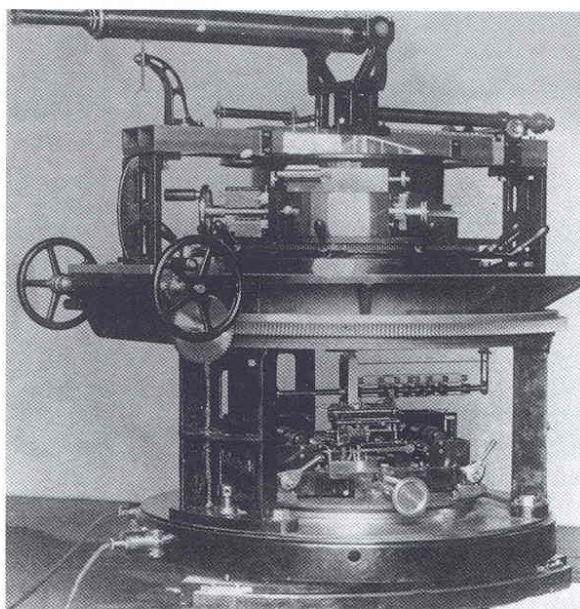




5" theodolite (1879), (Officine Galileo archives).



Field telegraph, 1873, (Officine Galileo archives).



Braccialini rangefinder for the Japanese government, 1898, (Officine Galileo archives).

to produce the Iscus interlens leaf shutter (later replaced by the Aplon interlens shutter), abandoning the concept of fabric focal plane shutters. The choice of the interlens shutter affected the type of cameras that were designed to be equipped with a Leica-type retractable mount lens, but not interchangeable. In that period, interchangeable lenses were not considered an indispensable requirement and, in any case, a fixed lens allowed the camera to remain smaller and more pocket-sized. Most Italian camera manufacturers of the day, such as Gamma, Sonne and Kristall, built rangefinder cameras with interchangeable lens, but they did not build any type of lens themselves and their catalogs did not offer lenses with focal lengths other than 50mm. Only San Giorgio and ISO offered telephoto lenses for their cameras and, for its half frame Sogno camera, only Ducati offered a complete

series of interchangeable lenses with a wide range of focal lengths. The lenses used by Gamma, Sonne and Kristall were furnished by Italian companies such as Koristka in Milan or Galileo in Florence, or came from abroad. The Officine Galileo in Florence did not lack for either theoretical knowledge of optics or practical experience in the grinding of lenses, and their camera lenses were built according to the designs of Prof. Giotti and Dr. Ricci and using lens glass imported from the German company, Schott.

What Galileo did lack was an industrial mentality and adequate marketing structure.

### Galileo and Ferrania

In an attempt to make up for the sales network it lacked, the Officine Galileo looked to the most important Italian photographic company of the day, Ferrania of Milan, to market its cameras. A contract

was drawn up with Ferrania that provided for not only the exclusive distribution of Galileo cameras under the Ferrania name, but also the supply of medium format lenses by Galileo for cameras built directly by Ferrania. In addition to the simple meniscus lenses for its least expensive cameras such as the twin-lens 6x6cm Elioflex, for Ferrania, Galileo also created the 3-element Terog with 105mm focal length  $f/6.3$  and  $f/4.5$  for the 6x9cm Falco bellows camera, and 75mm focal length  $f/6.3$  and  $f/4.5$  for the 6x6cm Astor.

Nothing is known of the details or conditions of the agreement with Ferrania, but it must have been a very binding and exclusive relationship. Even the name chosen for the cameras by the Officine Galileo, Condor, seems to have been dictated by Ferrania. After having used the letters of the alphabet (Alfa, Beta, Delta, Eta and Zeta), in the post-war period,





VIALE EGINARDO 29  
MILANO - TEL. 464.846

5000-7-57 - Tip. A. Lucini e C. - Milano



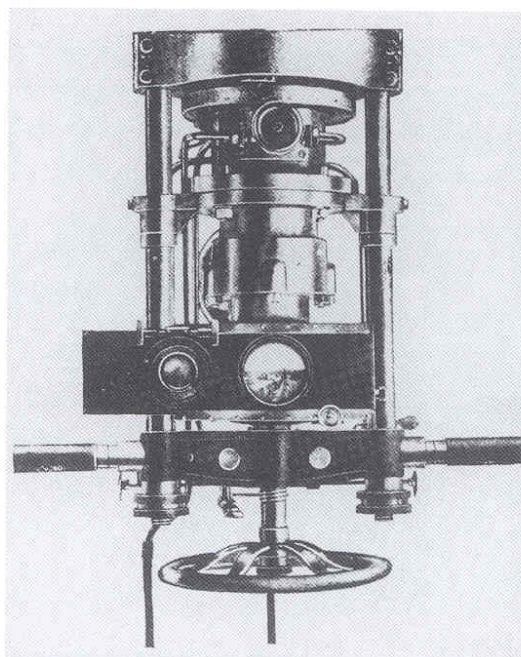
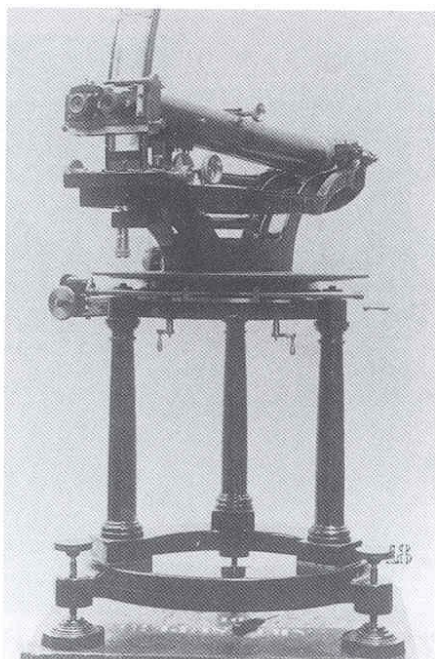
*GaMi* 16

**GaMi 16** *and accessories*

OFFICINE GALILEO DI MILANO - VIALE EGINARDO 29 - MILANO



*Horizontal base  
Braccialini range-  
finder, 1890,  
(Officine Galileo  
archives).*



*First periscope  
made by the  
Officine Galileo  
and mounted on  
the Swedish sub-  
marine, Hajen,  
1902 (Officine  
Galileo archives).*

Ferrania began using names of birds for its cameras, such as Colibri (hummingbird), Rondine (swallow) and Falco (hawk), to be followed later by Ibis and Astor (goshawk).

While the relationship with Ferrania was purely commercial in nature, relations with Koristka, designated the Officine Galileo in Milan after the war, were much more complex. They were not limited to a mere exchange of goods and services, but also an overflow of optical technology. The Officine Galileo in Milan remained virtually autonomous and marketed their camera and projector lenses independently, often still under the Koristka name and sometimes in direct competition with GalileoFlorence.

The Officine GalileoFlorence, included in its catalog the Terog 105mm and 75mm lenses for medium format, but also created a number of interchangeable lenses for 35mm format equipped with Leica 39x1 screw mount. The 3-element lenses for small format cameras were made with 50mm f/3.5 focal length with retractable mount and were called Eliog, like the lenses mounted on the Condor, but they were also sold under other names. The 4-element small format lenses, on the other hand, were named Tesog and were built with retractable mount for the 50mm f/3.5 focal length and rigid mount for the 35mm f/4.5 focal length. Of special interest is the 4-element 135mm f/4.5 Teleog that appears in catalogs of the period, but which was perhaps never marketed.

The fastest of the lenses built by GalileoFlorence, including with screw and retractable mount, was the 6-element 50mm f/2.0 Esaog. Some catalogs also include an 85mm f/2.8 Esaog and a 35mm f/3.5 Eliog which were perhaps never marketed.

The Officine Galileo in Florence also made 3-element magnifying lenses: the 50mm f/3.5 Eidon, the 75mm and 105mm f/4.5 Eidon and the 50mm f/2 Supereidon, as well as the Cinegon cinematographic projector lenses.

For their part, the Officine GalileoMilan built and marketed (in competition with Florence), the 7-element 50mm f/2 Eptamitar Leica-mount lenses (different from the Esaog) and the 90mm f/4.0 Ogmarr portrait telephotos.

The photographic lenses made in Florence all have names that end in "OG", taken from the initials of Officine Galileo and which also constitute the company's logo.

### **The Condor**

Once the decision had been made at the Officine GalileoFlorence to produce precision cameras, work was begun enthusiastically in 1946. For the mechanical aspects of camera production, the O7 department was organized under the direction of Engineer Portolani, while the lens manufacturing department was run by Tasselli.

Production began slowly but with great determination and, over the course of 1947 the new lens sector showed a noteworthy increase in production. It was hoped that a production rate of approximately five thousand cameras per month could be achieved within just a few months but, despite the initial enthusiasm, production rates settled into an average of 500 pieces per month. In fact, each camera was produced as a unique, sturdy and reliable piece of precision engineering and was built and tested singly. The Officine Galileo were still based on the concept of individual craftsmanship and each specialized worker

was required to follow the entire production cycle, including the finishing of each piece, assembly, chrome-finishing and setting. The concept of rationalization and mass production was not part of their philosophy. The first camera to leave the Officine Galileo assembly lines was the Condor, a compact, sturdy camera with a rangefinder separate from the viewfinder, but coupled with the lens focusing. Alongside the basic model, a less-expensive version without rangefinder and called the Condor Junior was also created. The Condor Junior could be transformed into a Condor, even after purchase, by simply adding the rangefinder. The Condors were equipped with 3-element, retractable mount 50mm f/3.5 Eliog lenses with focus range from one meter to infinity and stopping down to f/25. The leaf shutter was an Iscus Rapid with speeds ranging from one second to 1/500sec plus bulb exposure, and it had to be cocked after each shot using the lever on the front. For film advance, there was a knurled knob and the shutter could not be released if the film had not been properly advanced, but deliberate double exposures could be taken. The front lens unit screwed off and the serial number was visible on the front ring. The lenses and camera bodies were matched without any special order and there was no correspondence between the serial numbers of the two components.

Condor cameras were released on the market starting in 1948 but, independently of its agreement with Ferrania, the Officine Galileo found another new foreign sales outlet and an unknown number of cameras were exported to Australia. Because these cameras could not be called Condor, those intended for the Australian market were given the name Candog.