



G. MONETA - MILANO



# DUCATI

## MICROCAMERA



# 22.1.51 DUCATI

SOCIETÀ SCIENTIFICA  
RADIO BREVETTI DUCATI  
CAPITALE SOC. L. 1.500.000.000

**Radio, Electrical, Optical, Mechanical, high precision engineering constructions.**

**Radio:** Broadcast and professional radio-receivers, component parts, centralized - radio systems, shielded aeriads, public - address systems, microphones, sound - amplifiers, loud-speakers, Dufono inter-office communicators, electronic measuring instruments.

**Electrical:** variable Condensers for every application, paper, mica or air - dielectric condensers, electrolytic condensers, power factor correctors, condensers for filters, telephone sets and net - works, for spark-quenching, for u. h. f. radio by - pass; electrical micro - motors, electrical dry-shavers, electric generators for bicycle lights, coaxial high-frequency cables, electrical measuring instruments.

**Optical:** Vision lenses, binoculars, sound-on film cinema projectors, photographic cameras, optical measuring instruments.

**Engineering:** engines for bicycles and motor cycles, bicycle hubs.

## *And now that you own a Ducati microcamera?*

The world is yours; you can imprison it in your camera on pieces of film measuring 18×24 mm and then print from your negative which will enlarge fifty to sixty times larger than the negative itself without losing any clearness of line or the smallest detail.

Pay attention to the instructions concerning the use of the apparatus: once you have mastered the technique of photography it is up to you, and you alone, to enter the domain of art.

The Microcamera will become your lightest and inseparable companion; it will be your third eye, capable of perpetuating what the other two eyes have only seen in a fleeting manner.

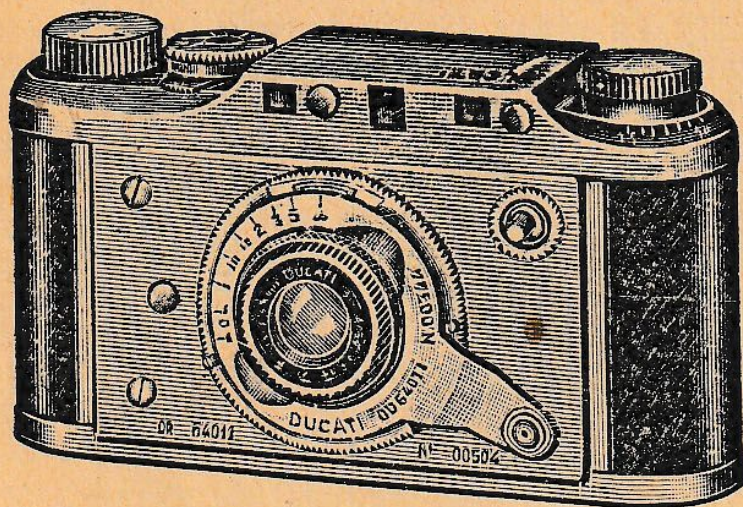
Do not be afraid of making double exposures, or of taking a picture without having first pulled out the lens; you have a machine capable of reminding you of everything, even if you are the most absent-minded of persons.

For the most detailed instructions on the technique of photography you should refer to Ducati publications dedicated both to the technique and to the principles of photography.

(Photo Page 3)

**DUCATI - LARGO AUGUSTO, 7 - MILANO**





DUCATI  
MICROCAMERA  
OR 6401 - 1

## FEATURES

*Format* 18×24 mm. on 35 mm. film.

*Lenses* interchangeable and all coupled to the rangefinder.

*Rangefinder* Incorporated in the camera, double image type with correction for minor defects of the eye.

*Viewfinder* Telescopic on the principle of Galileo, with great clearness of image.

*Coloured Signal* Incorporated in the viewfinder to show if camera is ready for use.

*Hooded focal plane shutter* with exposures from 1/20th. to 1/500th. of a second and half exposures.

*Traction of film* linked up to the working of the shutter for protection against double exposure.

*Safety catch* to prevent use of camera when the lens has not been pulled out.

*Film counter* for 15 exposures.

*Back* completely detachable.

*Scale* of depth of focus on the control ring of the lens.

*Size* 100×52×36 mm. (3.94×2.76×1.45 in.).

*Weight* 350 grms (12 oz.).



## I. LOADING

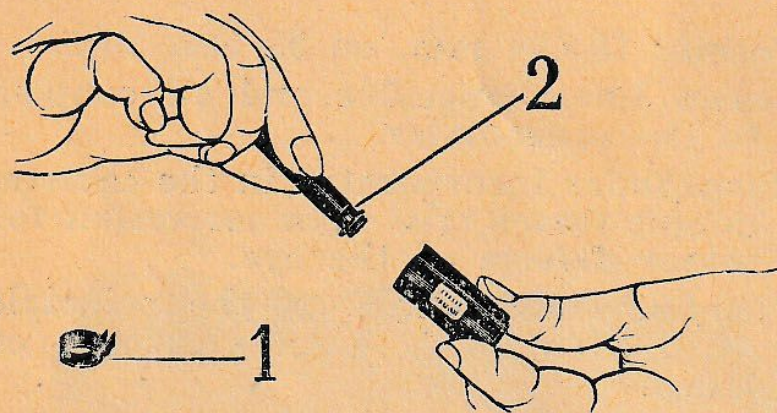


Fig. 1

(1) Open the cassette extracting one of the two end-covers (1), and take out spool (2).

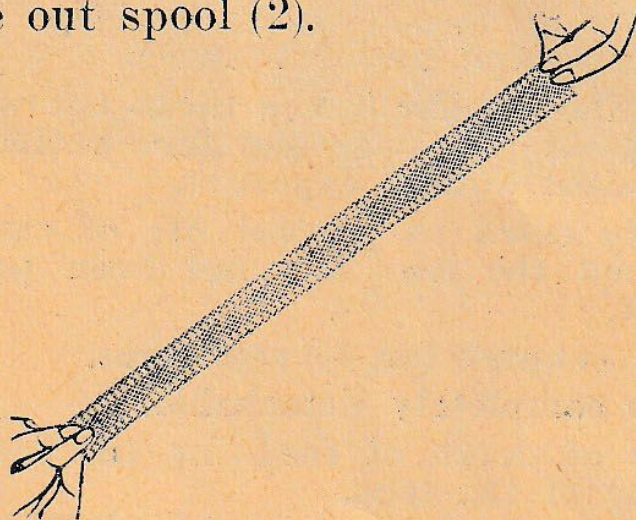


Fig. 2

(2) Put out the light, cut about 47 cms. of film ( $18\frac{1}{2}$  in.).

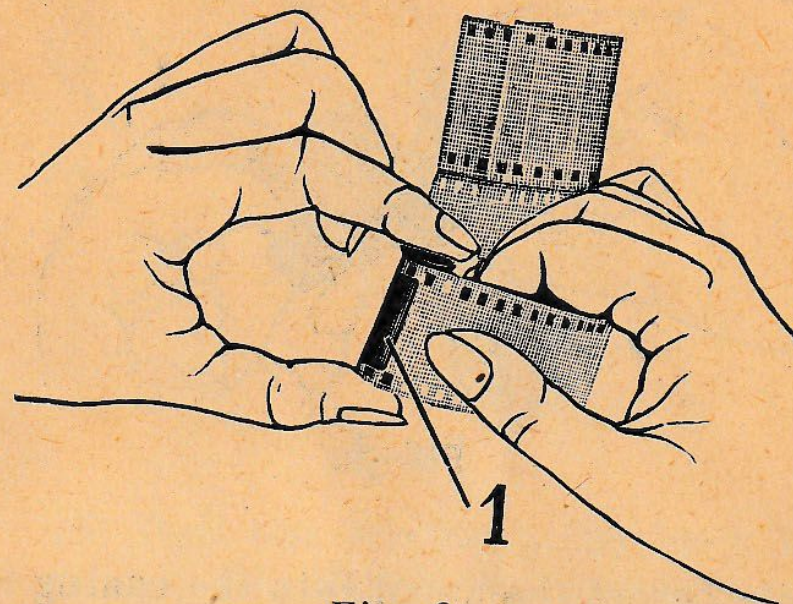


Fig. 3

(3) Take the spool in the left-hand, holding down the keyway made in one extremity, which allows one to insert the spool itself into the appropriate fork (7) (Fig. 8). Insert the film under the metal tongue (1), holding the gelatine coating against the spool, and push it until the teeth of the spool have entered the perforation of the film. Wind nearly the whole strip around the spool.



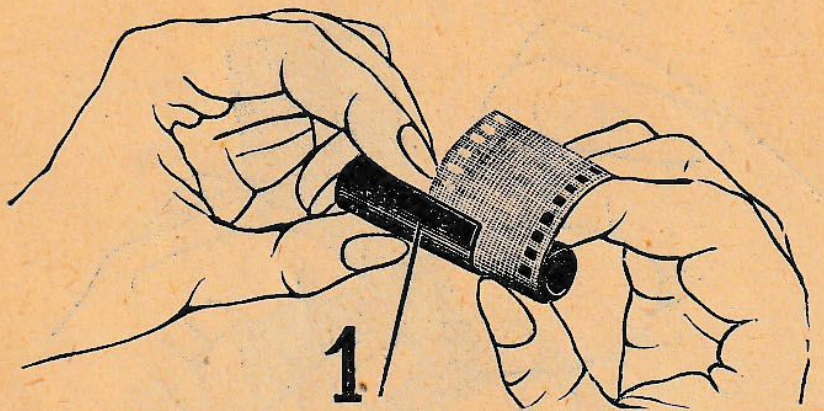


Fig. 4

(4) Insert the spool into the casing (1) of the cassette so that the free extremity passes through the rim of the case.

Put back the cover; the cassette is closed and you can turn-on the light.

*All the preceding operations are necessary in the event of your dealer not stocking loaded cassettes.*

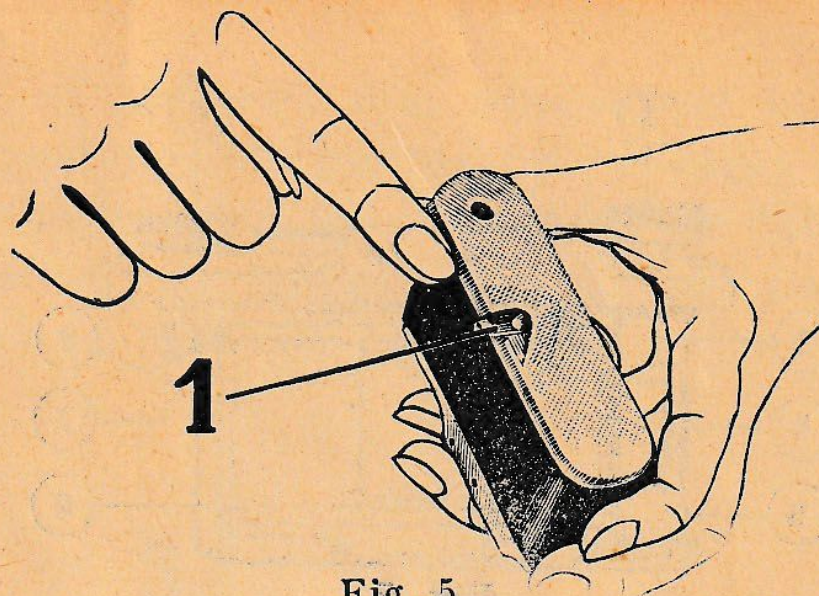


Fig. 5

(5) Pull out lever (1), the back is free and (Fig. 6), can be removed and laid on one side for the moment.

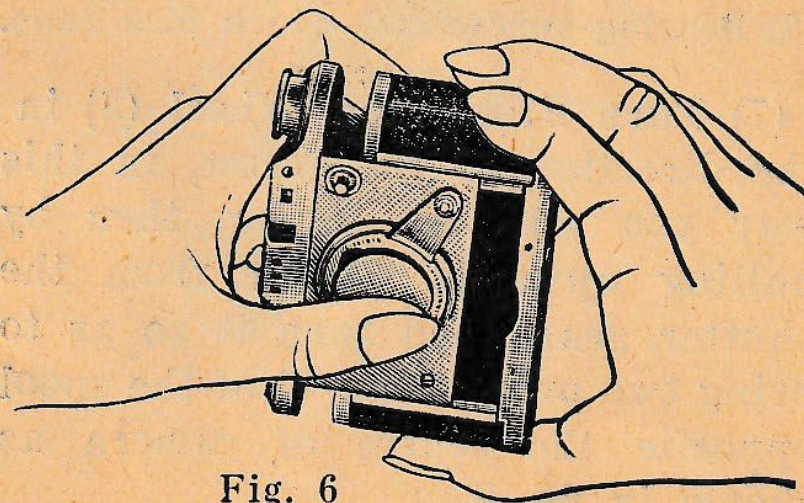


Fig. 6



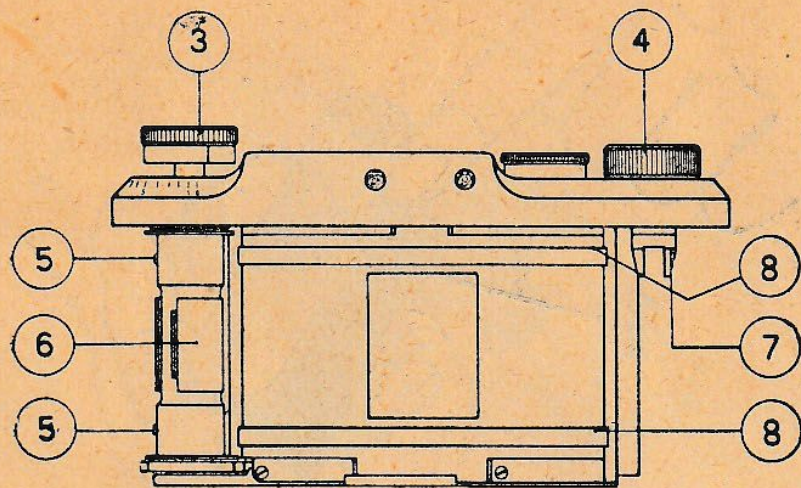


Fig. 7

(3) Film wind and shutter setting wheel;  
 (4) Cassette rewind wheel; (5) Projections on spool; (6) Tongue on spool;  
 (7) Fork on cassette rewind wheel;  
 (8) Bearing surface on which film runs.

(7) Turn Film-Wind Wheel (3) in the direction of the arrow, in this way you set the shutter, then by pulling upwards slip it from the shutter gear, then turn it so as to bring two projections (5) of the spool opposite the centre of camera as shown in fig. 8.

(8) Reinsert film wind wheel by pushing downwards to re-engage shutter gear, the index with the dot must coincide with the dot cut on the rangefinder cover.

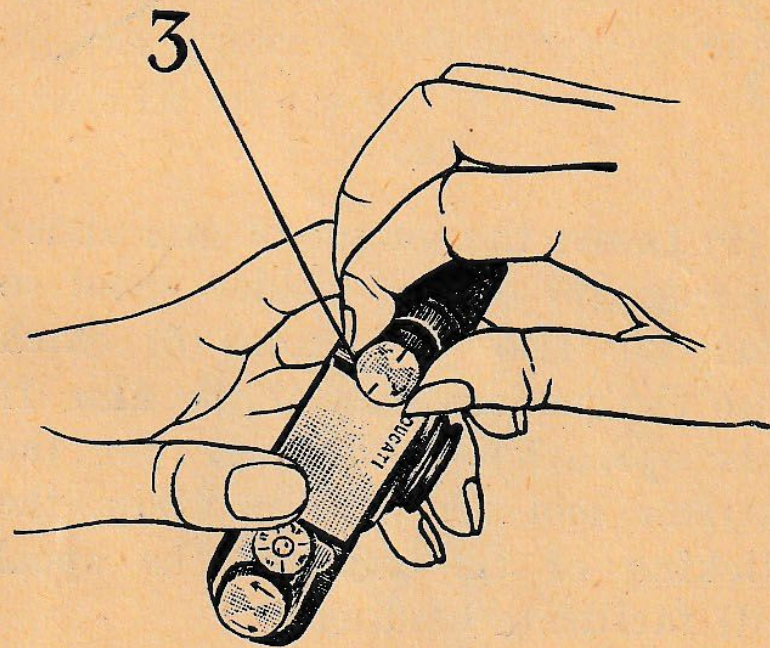


Fig. 8



(11) You must now bring in front of the shutter aperture the first piece of usable film (the end has already been exposed to the light when loading). Pull out film-wind wheel (3) and turn it, rather more than one turn, in the direction of the arrow, when the index dot corresponds with No. 1 on the graduated counter push in film-wind wheel (3) and do not pull it out again until 15 exposures have been made.

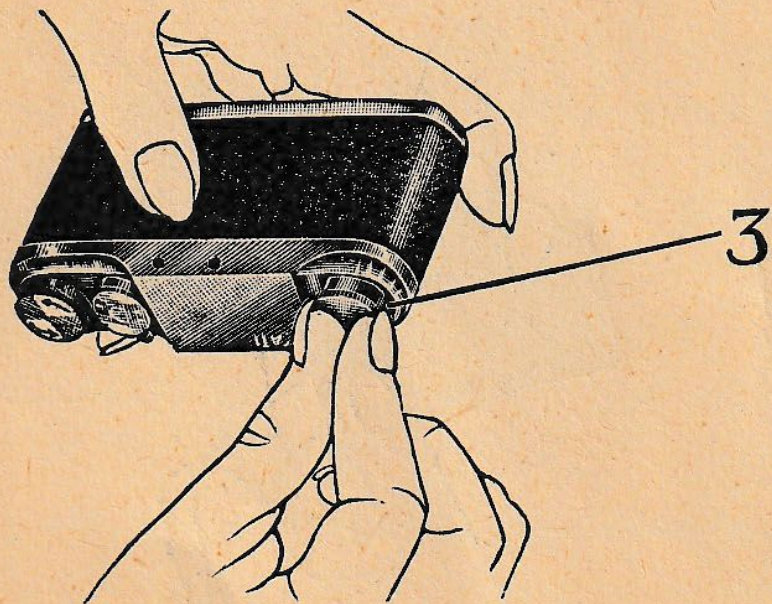


Fig. 11

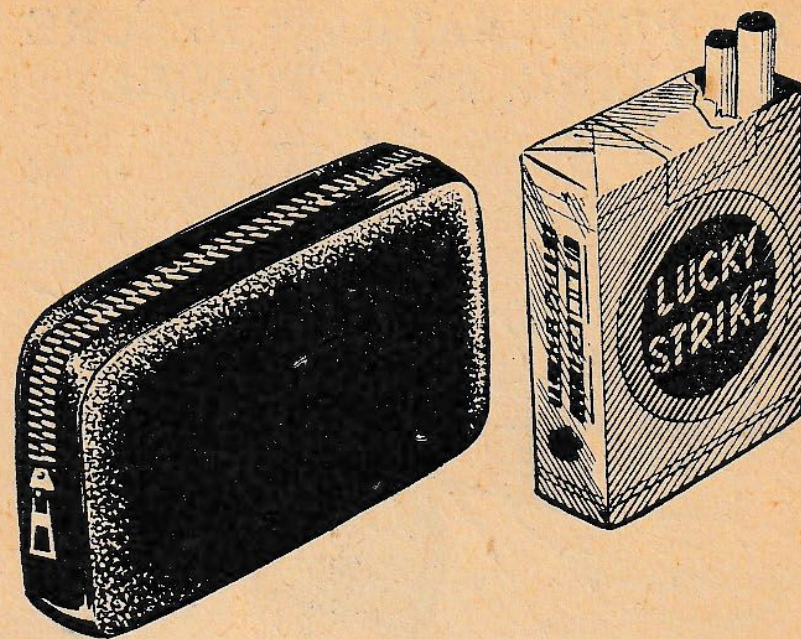


Fig. 12

The camera closed in its wrapping will not take more space than a packet of cigarettes, but remember to protect it always, especially when carried in your pockets — where dust, bits and pieces are often present — with its cover, either the ever-ready leather case or the chamois envelope.

Equip yourself with assorted films, have your spare cassettes loaded with fine grain, high speed panchromatic films, also colour film.



## II. - PREPARATIONS BEFORE MAKING AN EXPOSURE

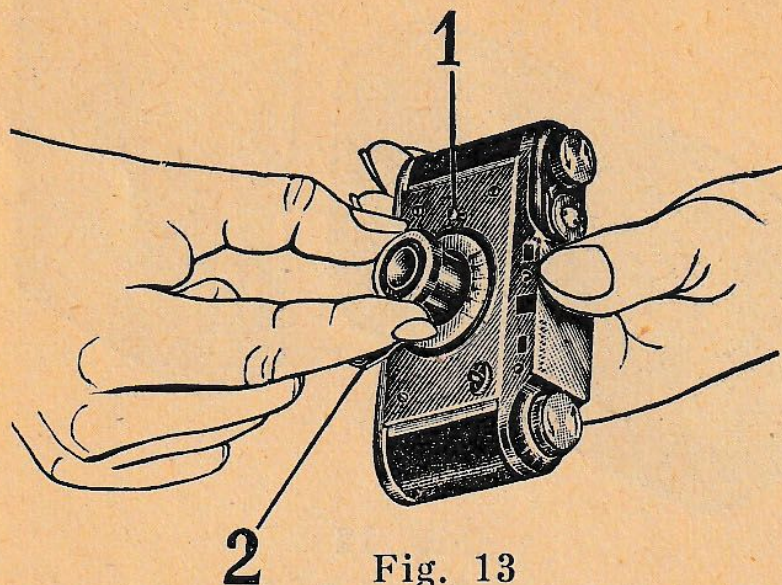


Fig. 13

(13) First you must pull out the lens about half an inch, then turn it clockwise until you feel it solidly fixed. If the lens is not pulled out you cannot work the shutter. By pressing button (1) and turning lever (2) the lens can be removed and one of the other interchangeable lenses adapted to the camera can be substituted, as can be seen fully explained in the instructions for using accessories.

(14) The Red Signal. If in front of the shutter aperture there is a square of film already exposed you will know it by looking through the viewfinder. The red signal will inform you that the shutter is not set. By turning film-wind wheel (3) until it checks, the shutter is reset, the film moves forward and the red signal disappears.

The shutter release will not operate until the film is moved forward and the shutter reset.

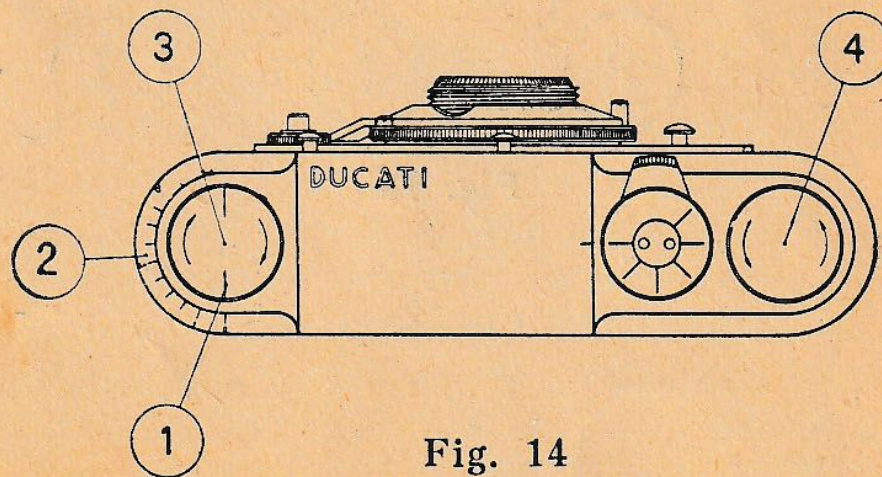


Fig. 14



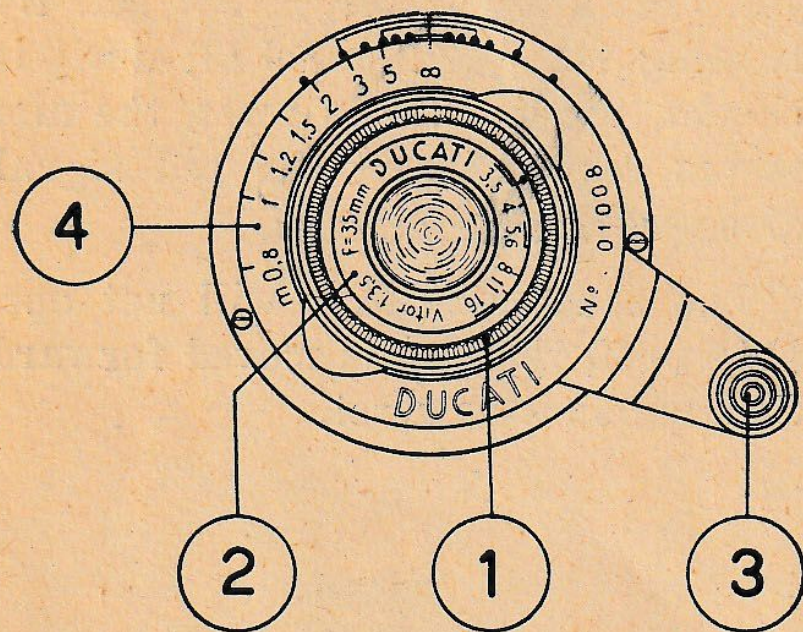


Fig. 15

(15) When you turn film-wind and shutter-setting wheel (3) button (4) must also turn, being connected with the cassette and the spool wherefrom the film unwinds. When the film is exposed index (1) will show 15 on the graduated scale (2) and wheel (3) can no longer be turned. The iris diaphragm is regulated by turning flange ring (1). The aperture number of the iris diaphragm is in red on scale (2). The numbers represent how many times the diameter of the lens diaphragm is in relation to the focus; hence the smallest numbers represent the largest aperture of the iris diaphragm.

The selection of exposure time can be made on the basis of the indications given on the table of exposures, or by the use of a photo-electric exposure meter. Having decided the exposure time, pull out wheel (1) on which are engraved the numbers 20, 50, 100, 200, 500, which indicate exposures of  $1/20$ ,  $1/50$ ,  $1/100$ ,  $1/200$



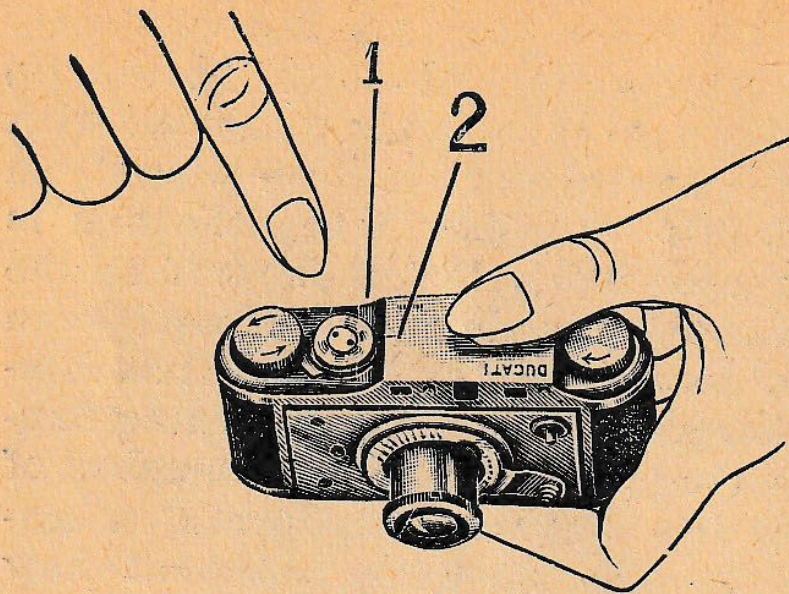


Fig. 16

and 1/500 of a second and the letter 'B' indicating bulb or time exposure,

(16) and turn this wheel (1) so as to bring index (2) to coincide with the number corresponding to the exposure time selected.

You cannot pass directly from  $1/500$  to 'B' or vice versa, without passing through all the intermediate numbers. When the camera is not in use always set the exposure control wheel at the longest exposure ( $1/20$  or  $1/50$ ) for the better preservation of the hooded focal plane shutter.

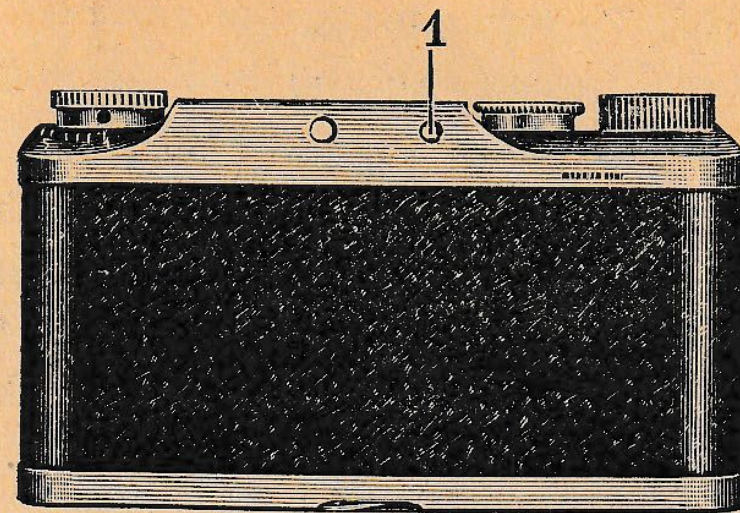


Fig. 17 a

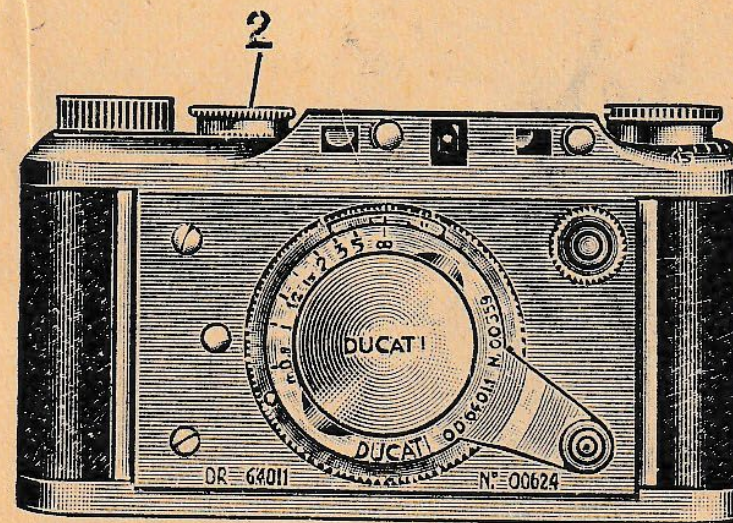


Fig. 17 *b*



(17) To focus bring the camera in front of your eye and look through the rangefinder peephole (1).

First of all try to improve the clearness of the image by turning lever (2), this operation serves to correct any defects of vision of the operator.



Out of Focus



In Focus

Fig. 18

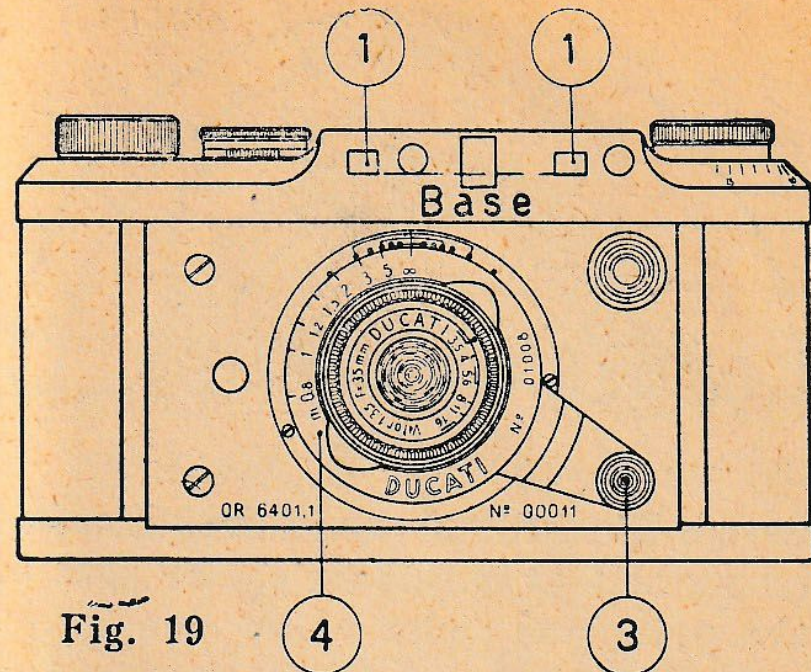


Fig. 19

(18) (19) Having done this, turn the camera towards the subject to be photographed, observing if possible perpendicular objects at the base of the range finder, at the straight line which unites the two windows (1) of the rangefinder. Lift up lever (3) until the two images of the subject coincide; then the camera is focused perfectly on the subject.

On scale (4) (fig. 18) you can read, if you wish to know it, the distance between the camera and the subject.



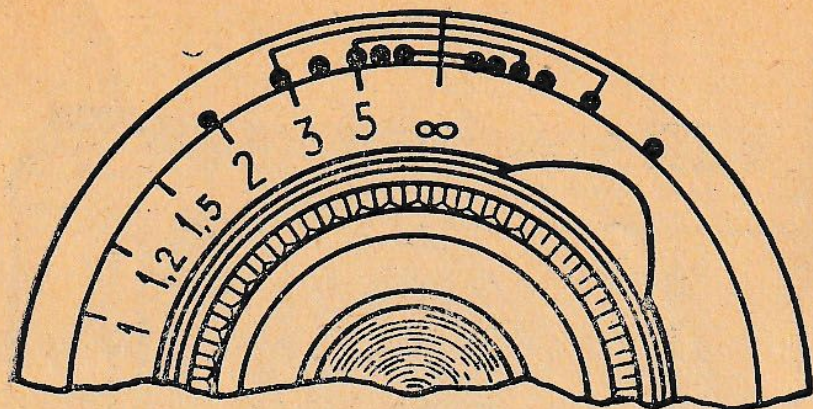


Fig. 20

(20) The secondary indices marked on scale 4 (Fig. 18) on either side of the principal index allow one to assess the depth of focus corresponding to the different numbers of the diaphragm. The depth of focus for the diaphragm  $f3.5$  is read on the scale corresponding with the first two dots united by a segment.

The other two dots symmetrical in respect to the principal index give the depth of focus for the diaphragm  $f4$ . The successive couples of indices show the depth of focus, always greater, corresponding to  $f5$ ,  $f6$ ,  $f8$ ,  $f11$ ,  $f16$ .

### III. - COMPOSITION AND EXPOSURE

(21) (1) is the peepsight or viewfinder: when you look in it you will see an image like the one that will be registered later on the negative.

Centre your eye well in front of the peepsight, holding the camera about 15 or 20 mm. from the eye.

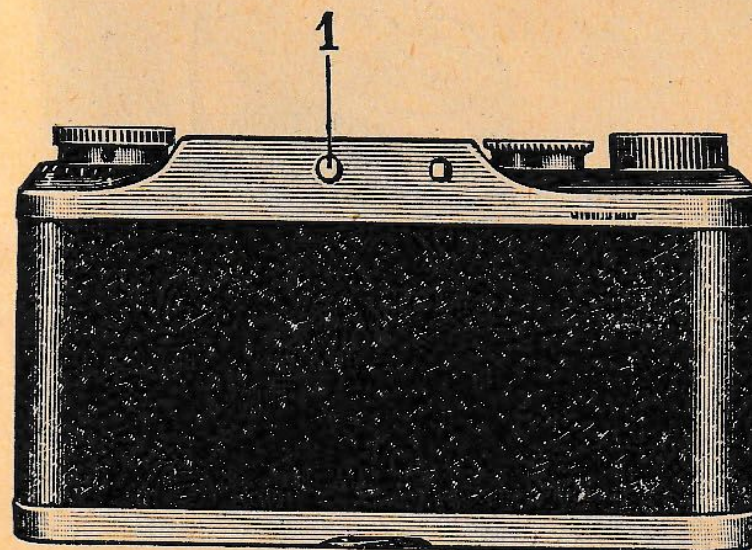


Fig. 21



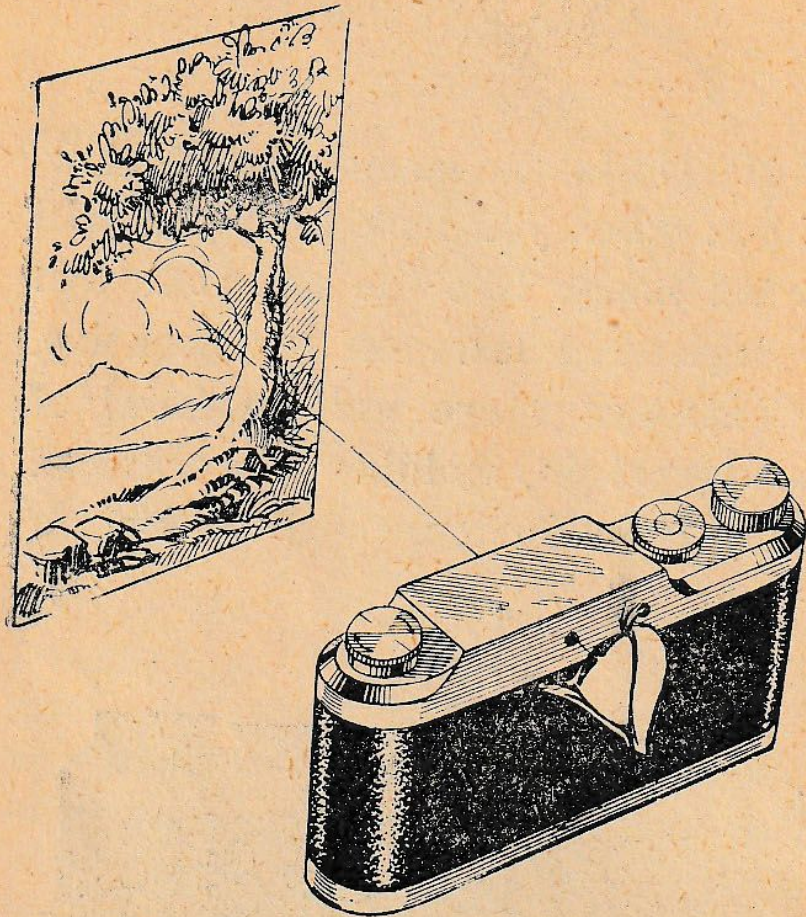


Fig. 22 a

*Camera horizontal:*

Format with long side vertical

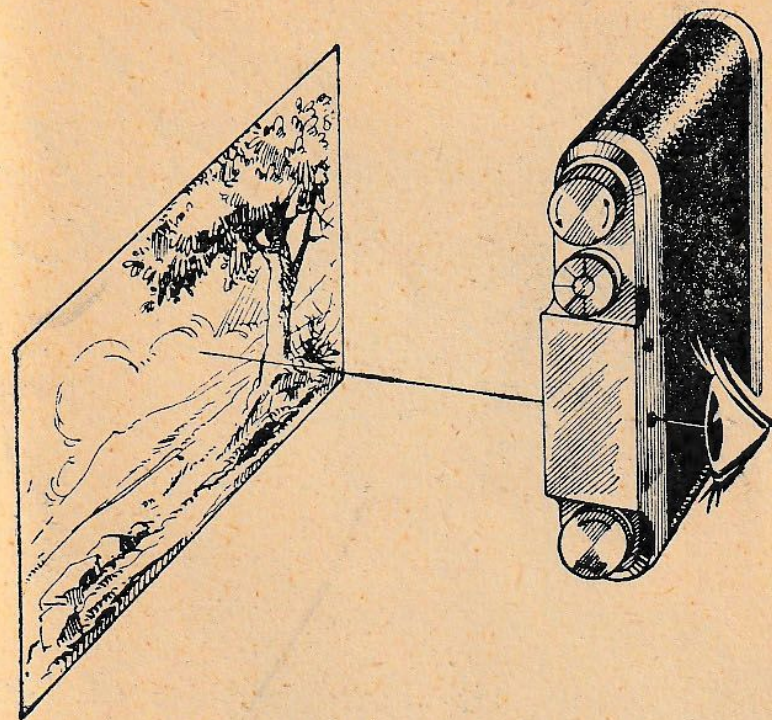


Fig. 22 b

*Camera vertical:*

Format with long side horizontal



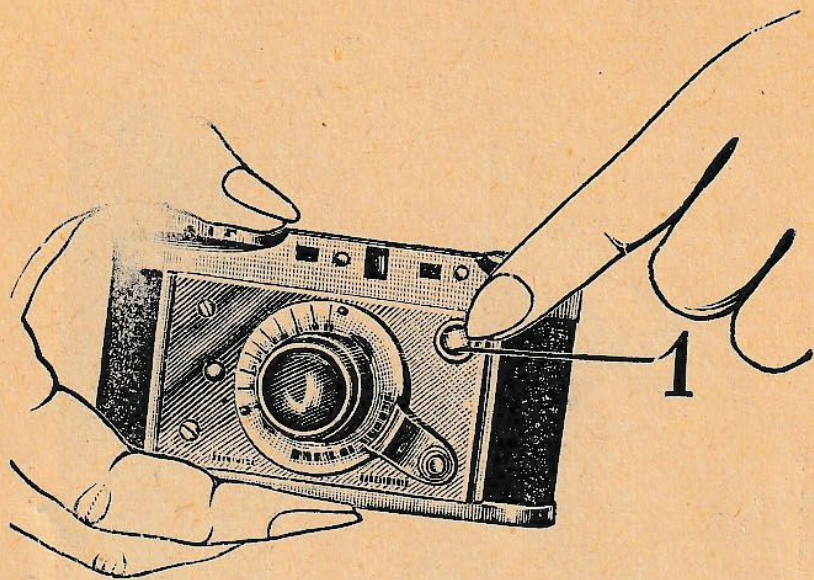


Fig. 23

(23) When the composition of the subject is made there only remains the act of exposure, which is carried out by pressing button (1) by the side of the lens. When the exposure wheel is at 'B' the shutter is open all the time that the button is pressed.

(24) To hold the camera as firmly as possible press it near the nose or on the eyebrow.

For exposures longer than  $1/20$ th. of a second always use a stand.

If the trigger does not function, either the shutter has not been set, in which case the red signal shows in the viewfinder, or the lens is not correctly pulled out.



Fig. 24



#### IV. - UNLOADING

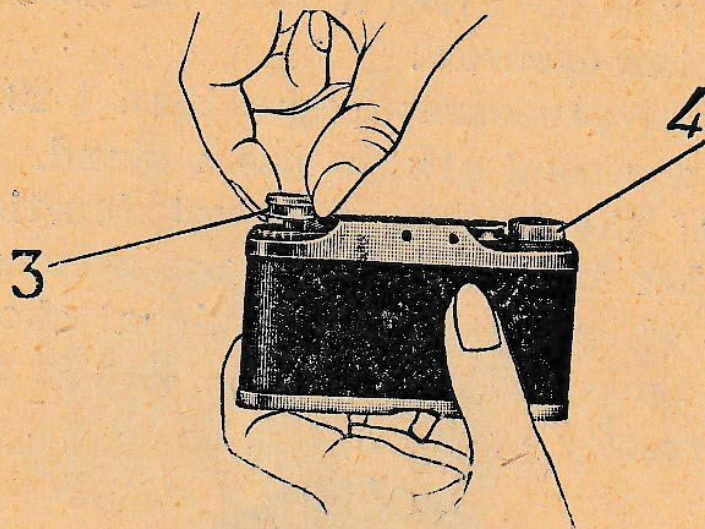


Fig. 25 a

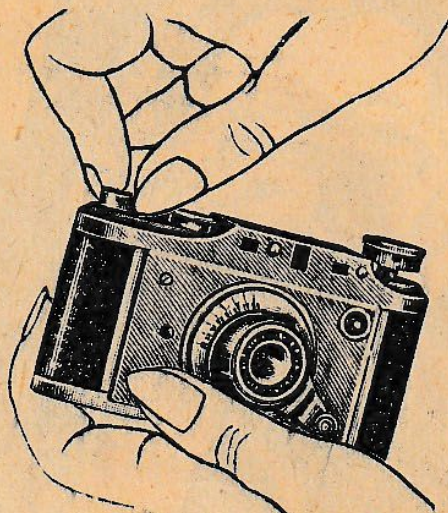


Fig. 25 b

(25) After 15 exposures the film in the spool is used up.

You must rewind the film into the cassette; it is an operation that can be done in broad daylight. Release wheel (3), by pulling upwards, and turn wheel (4) in the direction of the arrow engraved on it. Wheel (3) will turn in the opposite direction to that which it turned first; indeed the film is now moving in reverse. When wheel (3) ceases to turn it means the film is free, the whole of it has entered into the cassette, except the tongue which was already exposed to the light during loading and can be allowed to stay out (when it is developed with the Ducati developing tank it *must* be left out). Lastly you open the back and take out your cassette.

The camera can now be reloaded with a new cassette and made ready for more work.



## Table II

**TIME :**

Morning . . . . . 5 6 7 8 9 10 11-12  
Afternoon . . . . . 7 6 5 4 3 2 1

**Month :**

January, Nov., Dec. . . . .	0	1	2	3		
February, Oct. . . . .	0	1	2	3	3	
March, Sept. . . . .	0	1	2	3	3	4
April, August . . . . .	0	1	2	3	3	4
May, June, July . . . . .	1	2	3	3	4	4

### Table III

### Film Sensitivity:

D. I. N. . . . . 9 12 15 18 21 24  
 — . . . . . 0 1 2 3 4 5

Table IV

[illegible]

Table V

FILTERS: Anultra : : 0

Light Yellow 1

## Dark Yellow 2

Orange . . . 3

These numbers are effective with panchromatic films which are always preferable to other films.



# INDEX

And now that you own a Ducati Microcamera . . . . .	1
The Ducati Microcamera 18×24 . .	2
Features . . . . .	3
I. Loading . . . . .	4
II. Preparation before Exposure .	14
III. Composition and Exposure .	23
IV. Unloading . . . . .	28
V. Exposure Tables . . . . .	30
List of Lenses . . . . .	34
Accessories . . . . .	35

ORN 4405,1 IG 3306.1 / 10000 S 8  
Printed in Italy

Lens 32421 Camera 07798

Standard Technical Information Sheets, Photographs, Pamphlets, etc., giving every detail concerning DUCATI PRODUCTS, will be supplied to all interested, upon request.

Publicity Material,

Illustrated Booklets,

Ducati Commercial News, a monthly publication concerning the Ducati Production and Sales Organization, and its developments, will be mailed regularly and free-of-charge.

Every owner of a "DUCATI 18 x 24 MICROCAMERA", can enter the "MICROCAMERA ANNUAL", Photographic Competition and win valuable prizes. Send the best photo you have taken and write for details to:

**DUCATI C. P. T. - Largo Augusto 7 - Milano**