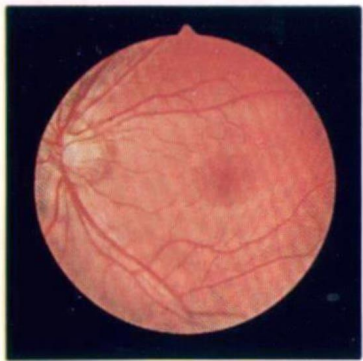




Kowa
RC

HAND-HELD FUNDUS CAMERA



Through a convenient finder—a clear fundus picture !

Designed with a special optical and an illuminating system, the Kowa RC gives you a very clear photograph of the eye ground, for it has the following features !

- (1) The focus is deep on account of a built-in diaphragm.
- (2) Held in hand, the camera is subject to little shaking with a special stabilizing device.
- (3) The patient's eye may be fixed easily by an eye fixer, allowing you to take a lucid picture of any part of the fundus.

The single-lens reflex type finder is paralax-free, and the image it gives you perfectly coincides with the photograph to be taken. As only a small quantity of light is required to obtain a clear picture of the eye ground, the patient is spared unnecessary pain.

COMPACT & LIGHT—CONVENIENTLY CARRIED ON HOME VISITS !

No larger than 8 mm movie camera (24 cm × 20 cm × 10 cm) and weighting only 980 g, it marks a new height in compact design as a fundus camera. In a special portable bag, it may easily be taken anywhere—on mass examination trips to remote villages. Hand-held for shooting as well as hand-carried, it is suited for use on bed-ridden patients.

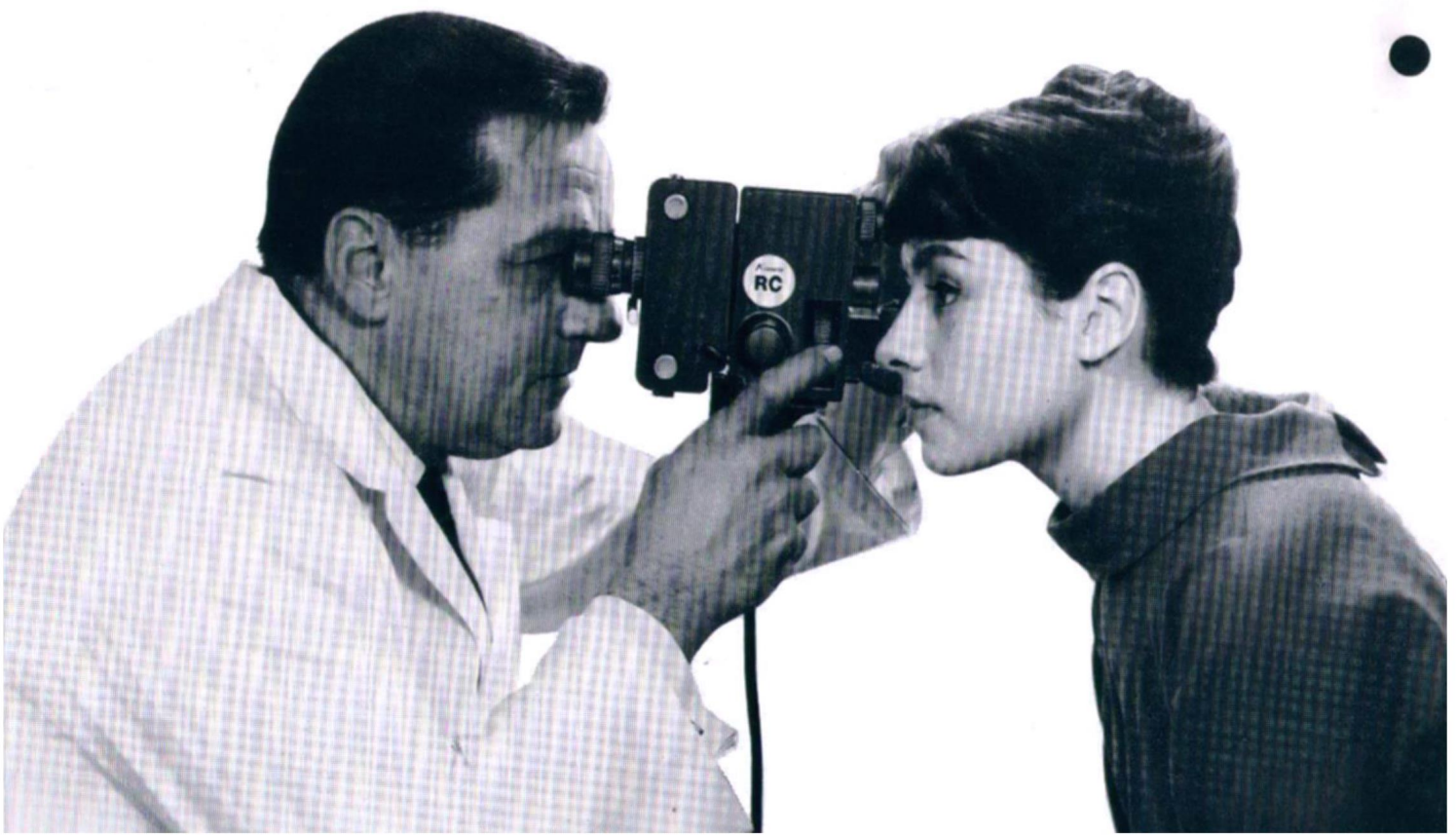
EASILY OPERATED BY ANYONE !

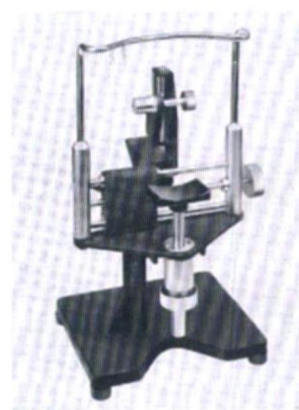
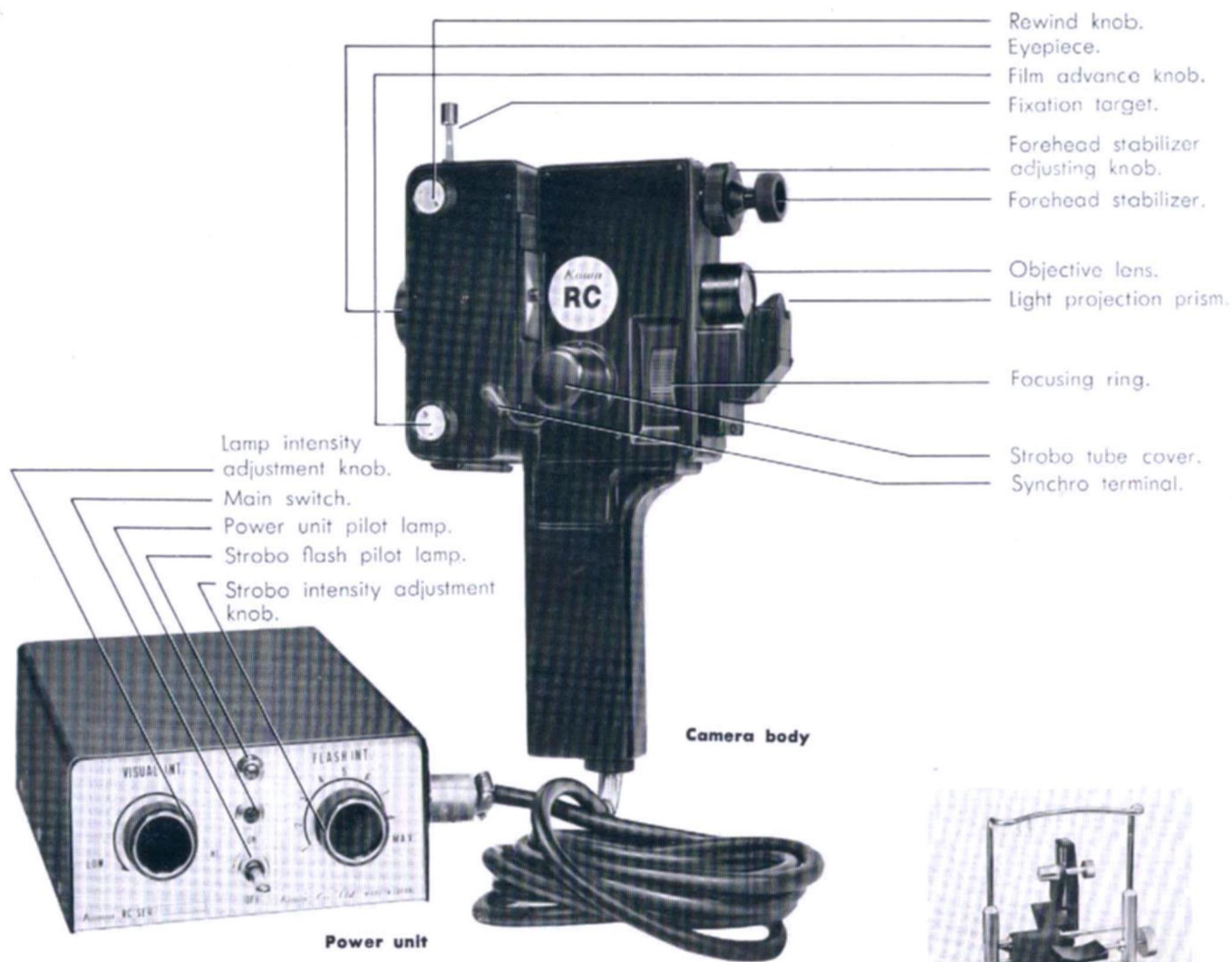
Commercial 35 mm Daylight type film, black-and-white or color (ASA 25 or more), may be used in this camera. Load it with film just as the 35 mm still camera, and then, all you have to do is to bring the image into focus and press the shutter release. While taking a picture you can operate the camera with a single hand. It may also be mounted on a stand and used like a big scale fundus camera.

The Kowa RC, permits of focal adjustment between 35 mm and ∞ , and the strobo may be synchronized with any shutter speed.

Capable of perfectly photographing an operation spot or a section of skin surface, this camera has a wide range of applications in otorhynolaryngology, surgery and other fields.

The finder, an erect-image single-lens reflex type, provides a very luminous and wide field of view, making the camera superior to conventional ophthalmoscopes if used as such.





Special accessories:
standard holder of fundus camera
for group medicine

Standard set : (in portable case)

Components :

Camera body	Spare illuminating lamp
Power unit	Fuse for Power supply unit
Small driver	Silicon cloth

Specifications

Dimensions :	Camera, 240 × 203 × 102 mm Power unit, 61 × 185 × 132 mm
Weight :	Camera, 980 g Power unit, 2.0 kg
Camera type :	Single-lens reflex quick-return type
Finder :	Erect image
Focusing :	Single hand focusing
Film winding :	Manual, proof against double exposure
Film rewinding :	Film counter returns automatically
Film loading :	Through back cover
Optical system :	Composed of 26 lenses
Illumination :	Illuminating lamp, 6 V, 3 W Strobo flash bulb, 50 w/sec; flash time, 1/750 sec. Both adjustable in intensity Color temperature, 5,600°K
Photographic field of view :	5 papilla diameter 30°
Photographic magnification :	2.7 ×
Finder magnification :	7.2 ×
Composite magnification :	19.4 ×
Sight adjustment range :	Adjustable between +30 and -20 diopters
Picture :	22 mmφ, with position mark
Power unit :	100 V, 117 V, 220 V, 240 V (variable), 50~60 c/s
Fixation target :	150 mm long; 2.5 mmφ wide; moving angle, 360°
Camera rest :	Adjustment range, 60 mm
Photographic lens system :	Kowa lens (Prominar) F3.4 composite focus, 41.7 mm



HOW TO USE THE *Kowa* RC

1. Drop mydriatic solution (for example, Mydriatic-Roche, Homatropine, or Neocynephine) in the patient's eye. Ordinarily, mydriasis is developed completely in about 30 minutes after the mydriatic is dropped in the eye. If mydriasis is insufficient, give additional drops and make the pupil completely dilated.

To give sufficient mydriasis is the first prerequisite to clear photographing (make the pupil at least 7 mm in diameter).

2. Insert the end of the DC cord into the DC power outlet on the power unit in the proper position and secure connection by tightening the fixing screw.

3. The user should adjust the eyepiece focusing ring from + to - so that the crosshairs in the viewing system appear clearly and with fine definition.

4. Bring the light projection prism of the camera close to the patient's cornea, and fix the vertical and horizontal position of the camera by adjusting the length of the forehead stabilizer so that the prism is about 7 mm from the surface of the cornea.

5. After confirming that illuminating light is being projected properly, minutely adjust the focusing ring while looking through the viewfinder and a clear fundus image will be seen through the finder.

To prevent the patient's pupils from moving, determine the position of the fixation target and have the patient gaze at the fixer with the eye which is not going to be photographed.

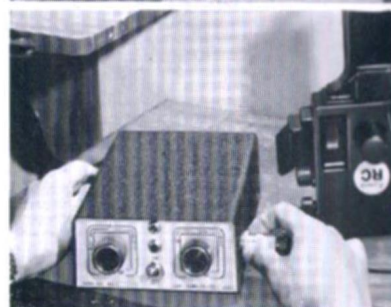
6. Push the shutter lever slowly and steadily when focusing has been made and when it has been confirmed that illuminating light is being projected uniformly on the fundus.

Then the strobo flashes and completes photographing.

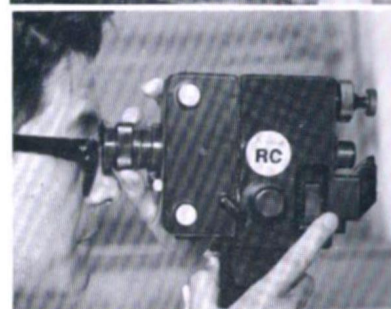
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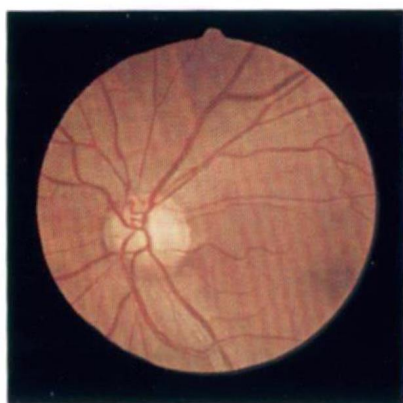


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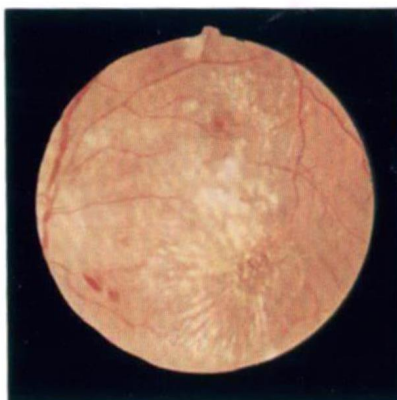


FUNDUS PHOTOGRAPHS TAKEN BY *Kowa* RC

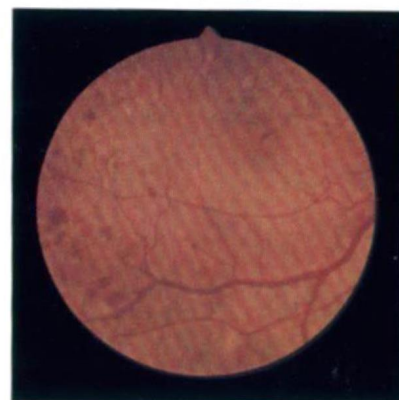
Fundus hypertonicus



Hypertensive retinopathy



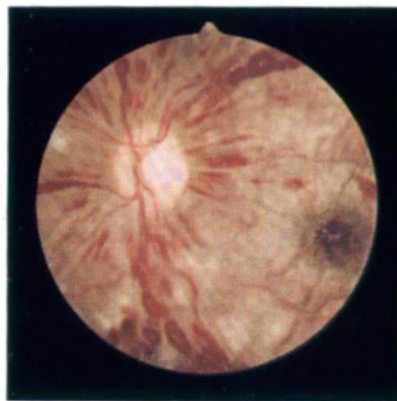
Diabetic retinopathy



Choked disk (brain tumor)



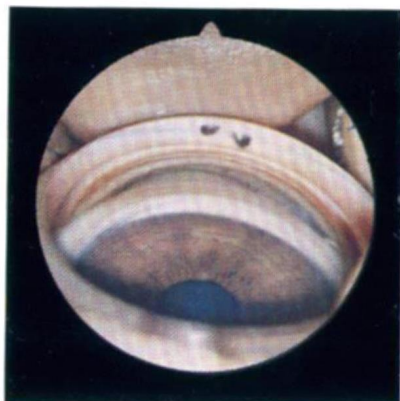
Fundus-findings of lupus



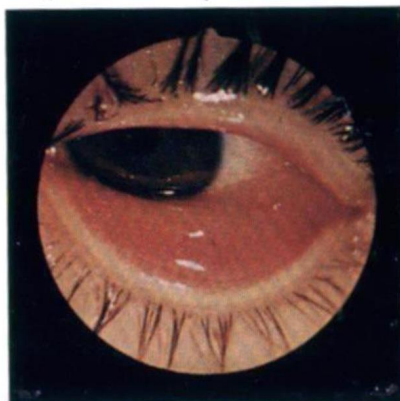
Pigmentary retinal degeneration



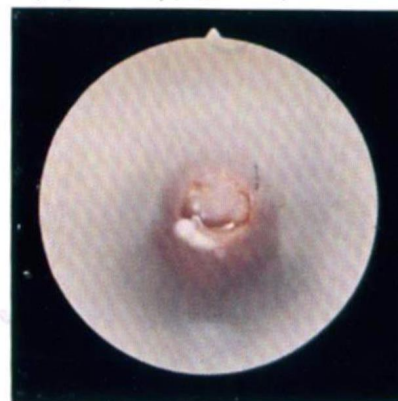
Gonioscopic finding

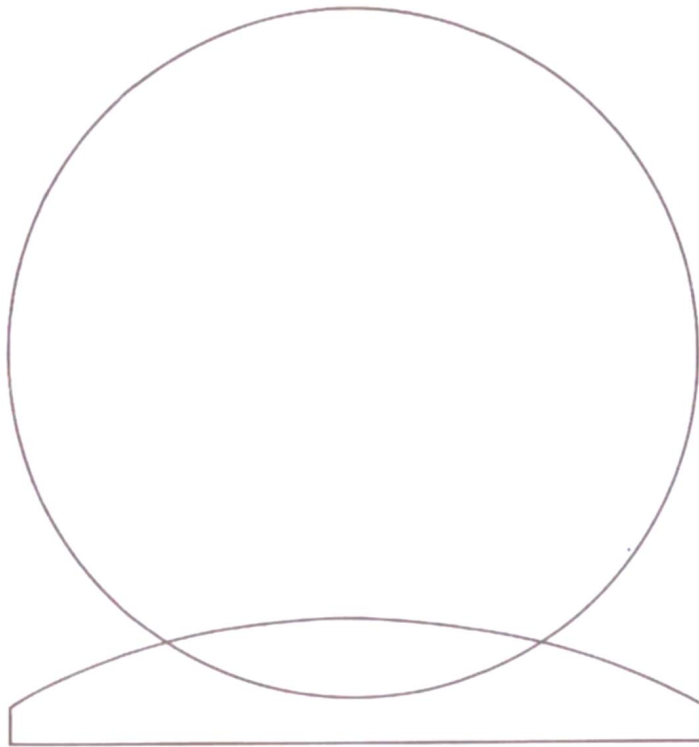


Anterior segment of the eye
(Conjunctivitis)



Tympanum (tympanitis)





Adult diseases, especially apoplexy with its high mortality rate, are a matter of great concern among medical scientists in entire world.

Changes in the fundus picture present a vital key in the diagnosis and prognosis of a patient of arteriosclerosis (hardened arteries). The condition of his eye ground must be continually observed and recorded (photographed) for future reference.

Kowa, therefore, has developed the RC hand-held fundus camera with the help of many researchers, industrial designers and technical experts.

It is the fruit of three year's assiduous research undertaken by Kowa-engineers under the guidance of Dr. Yasuharu Kuwabara, Prof. Keio University, Medical School and with the cooperation of many experts including staff members of Prof. Yoshitoshi Clinic at Tokyo University and the Ophthalmological Department of the Tokyo Medical College. Compact and light but incorporating a specially-designed optical and an illuminating system, the Kowa RC can photograph a patient's eye ground with more sharpness and clarity than conventional fundus cameras. Hand-held, it may be used conveniently on bed-ridden patients or carried easily on home visits or on mass examination tours.

The Kowa RC is recommended for examination of patients of diabetes, toxicosis of pregnancy and nephritis as well as hypertension—even outside the ophthalmological field.



Kowa

Kowa Company, Ltd.

Head Office: No. 6-29, 3-chome, Nishiki, Naka-ku,
Nagoya, Japan Tel. 971-9171

Tokyo Office: KyodoBldg., No. 38, 2-chome, Nihonbashi, Kabutocho,
Chuo-ku, Tokyo, Japan Tel. 668-0011

Osaka Office: 2-22, Awajimachi, Higashi-ku, Osaka, Japan
Tel. 202-1341