



FUJINON

LENSES

FUJI PROFESSIONAL SERIES

OWNER'S MANUAL

We are sure you are thoroughly satisfied with the FUJINON LENS you purchased since it is built to meet highest professional standards in sharpness, color balance and every other respect.

This manual will show you how to use it correctly. Be sure to read it through carefully.

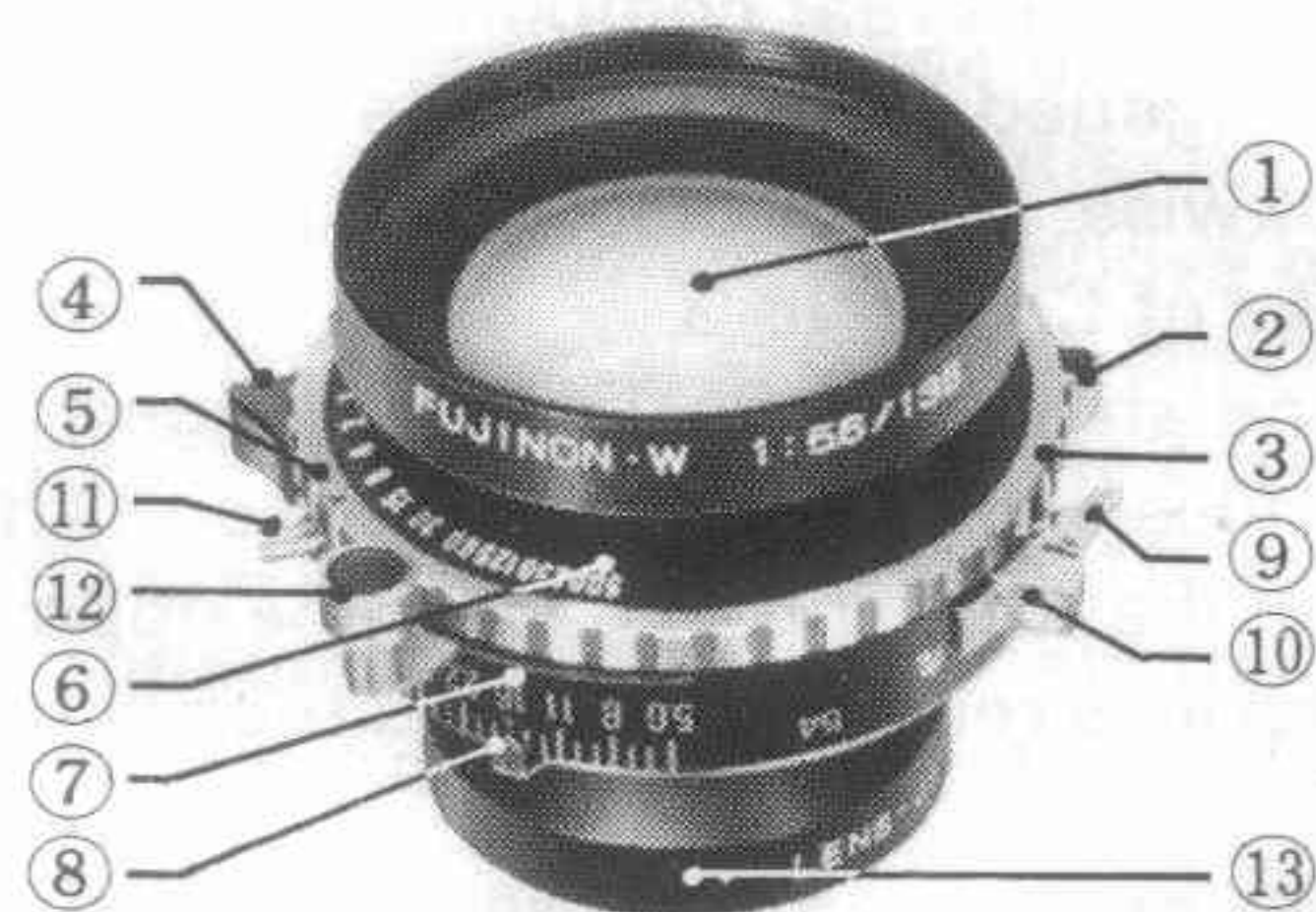
Notice :

To allow making prompt improvements as the occasion arises, all technical specifications (both internal and external) are subject to change without notice.

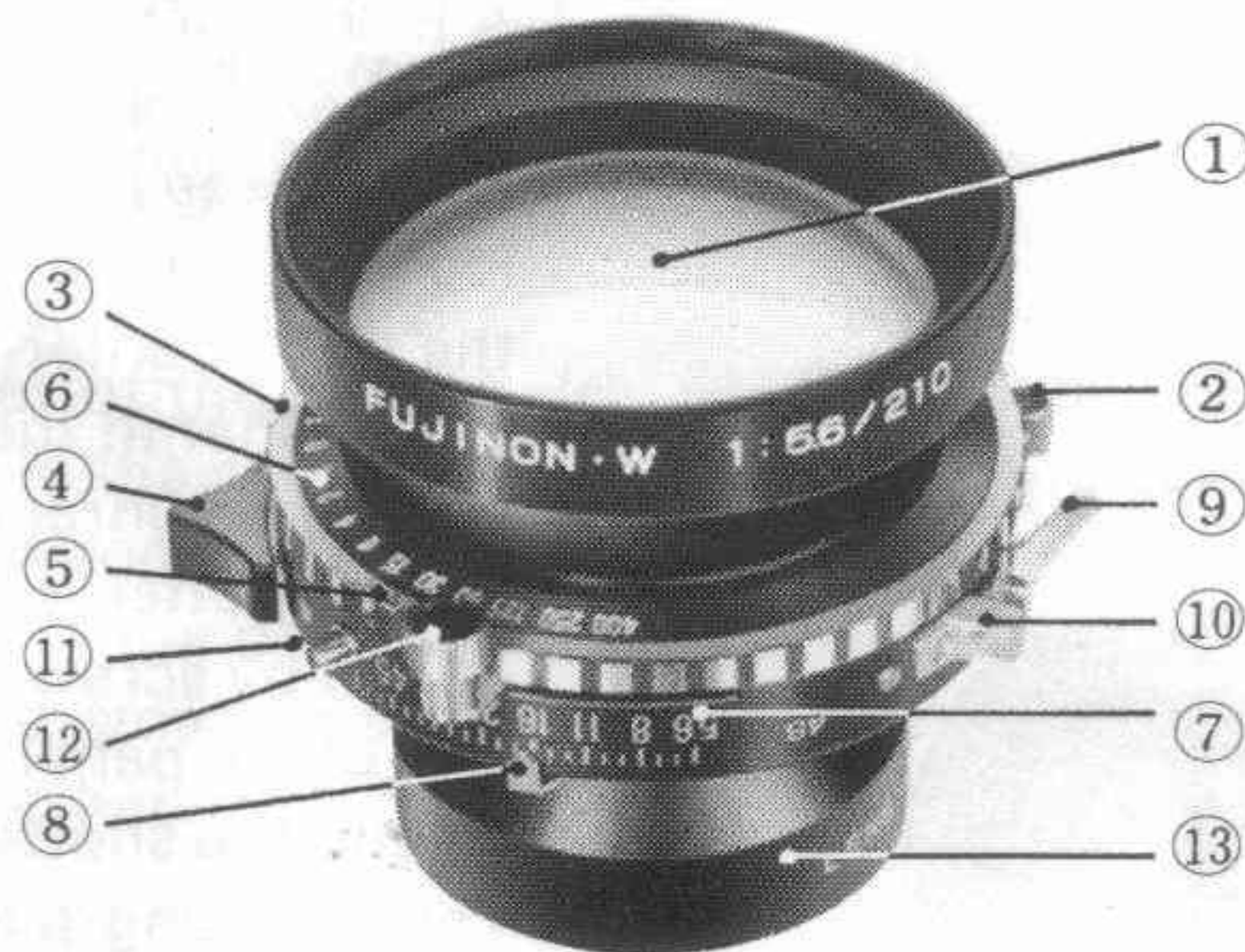
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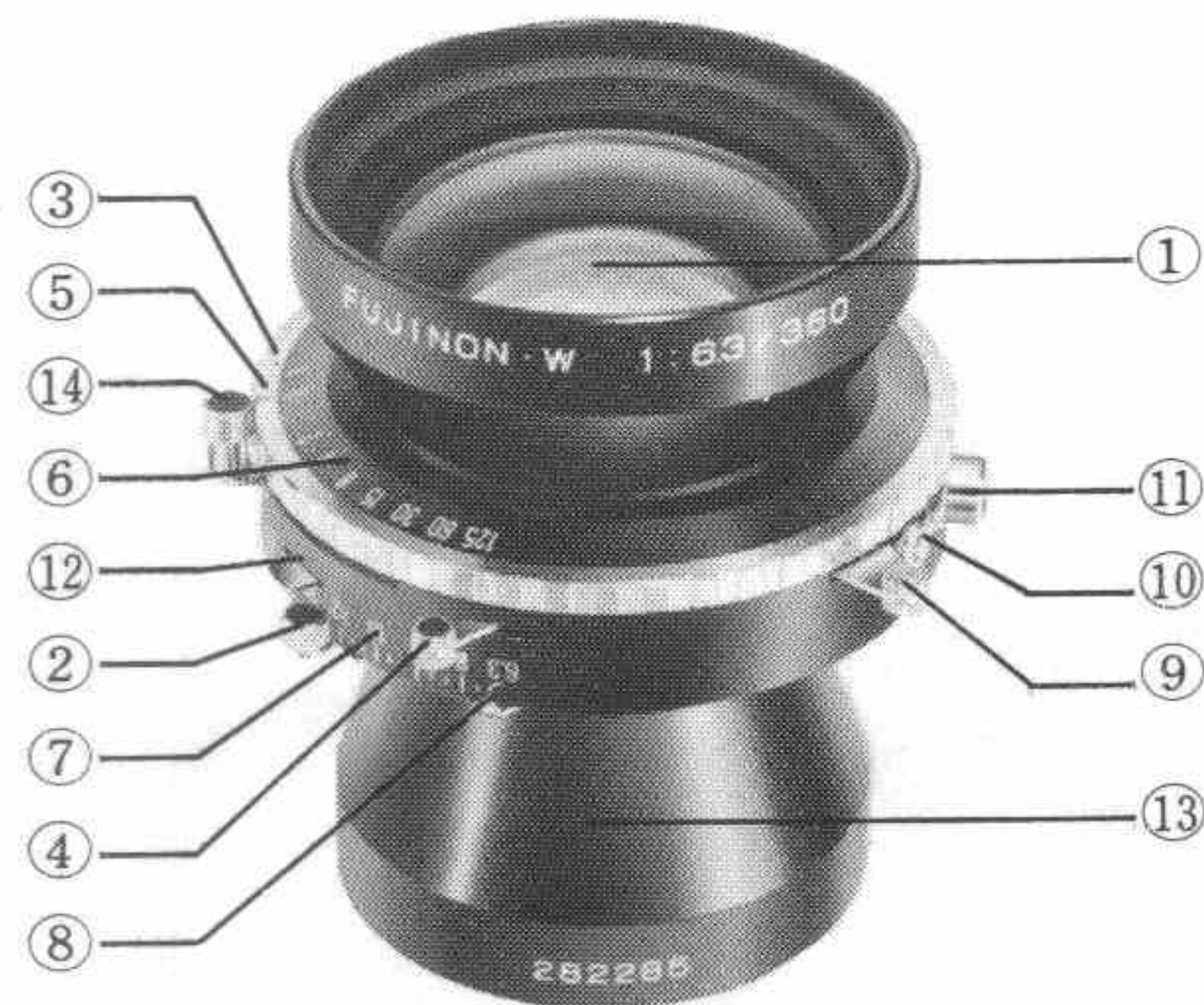
■ NAMES OF PARTS



Copal No.0



Copal No.1



Copal No.3

- ① Front component
- ② Aperture control lever
- ③ Shutter speed ring
- ④ Press focus lever

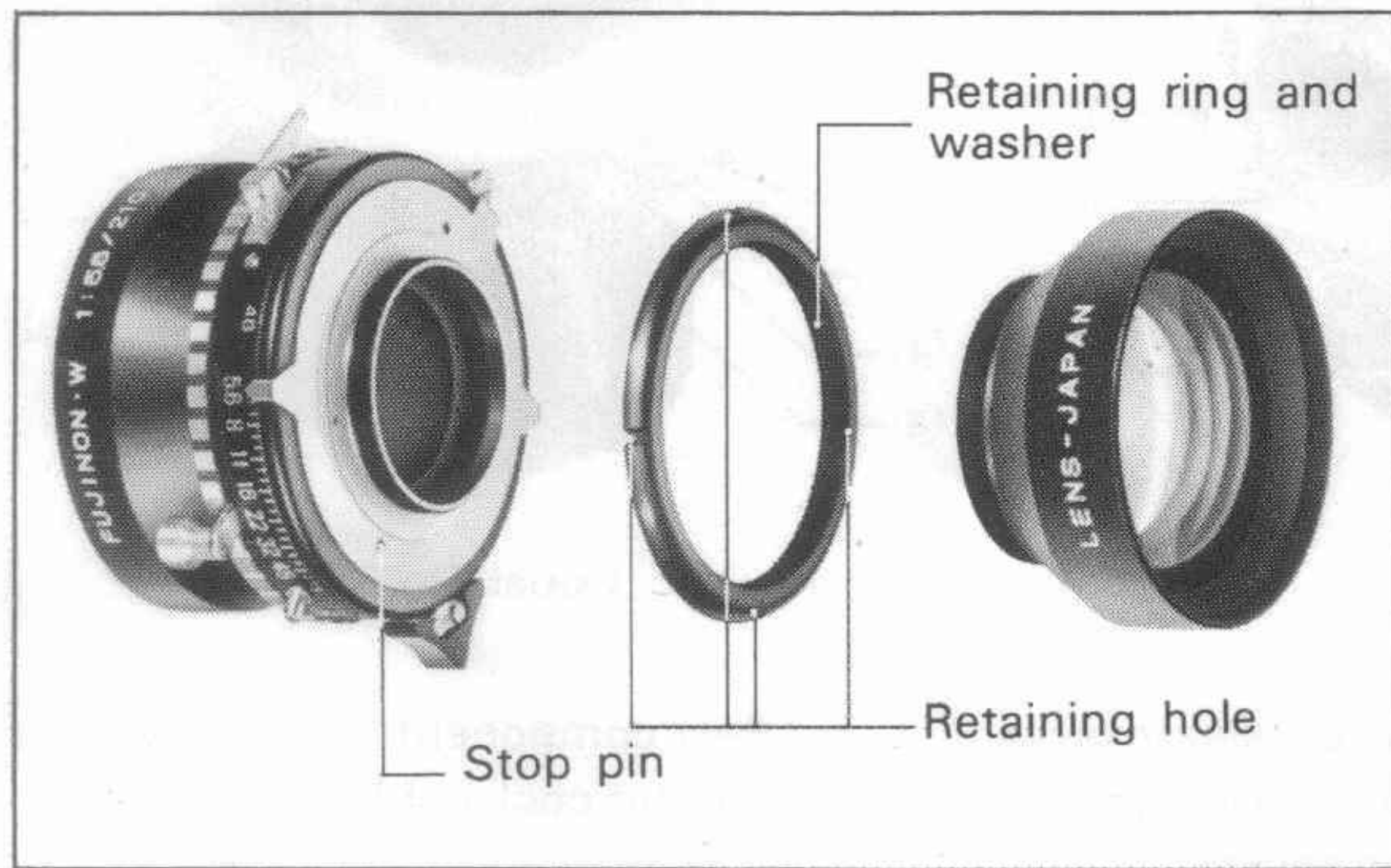
- ⑤ Shutter speed indicator
- ⑥ Shutter speed scale
- ⑦ Aperture scale
- ⑧ Aperture indicator

- ⑨ Shutter release lever
- ⑩ Shutter release socket
- ⑪ Sync socket
- ⑫ Shutter cocking lever

- ⑬ Rear component
- ⑭ Shutter cock confirmation signal

■ HOW TO MOUNT THE LENS ON THE LENS PANEL

Lenses for large format cameras are, on the whole, mounted on a lens panel before mounting on the camera.



● Metal lens panel

1. A hole is first bored through the lens panel at the specified point and the size of the hole is dictated by the size of the shutter (see page 6). The lens rear component and retaining ring are next disengaged from the shutter by turning the ring counter-clockwise. (The retaining ring serves as the washer in the case of Copal No.3. Keep the fingers off the diaphragm and shutter blades). The flanged end of the shutter is now inserted into the panel hole and affixed to it by screwing on the retaining ring from the opposite side of the panel. The lens rear component is then screwed into the shutter.

The stopping pin may or may not be used. If it is, the shutter is positioned properly on the panel, the location of the pin is marked, and a hole is drilled into the panel to accommodate the pin (see page 6).

Notes : ① If the lens panel is thinner than 1.5mm, it might be difficult to screw the lens on tightly, in which case the procedure prescribed for wooden panels should be followed.

② To prevent light leak, the hole for the stop pin is drilled into and not through the lens panel.

③ **If the stop pin is not being used, be sure to remove it from the lens because it can cause fuzziness on one side of the picture.**

2. Mounting a Copal No.3 shutter on a Linhof lens panel

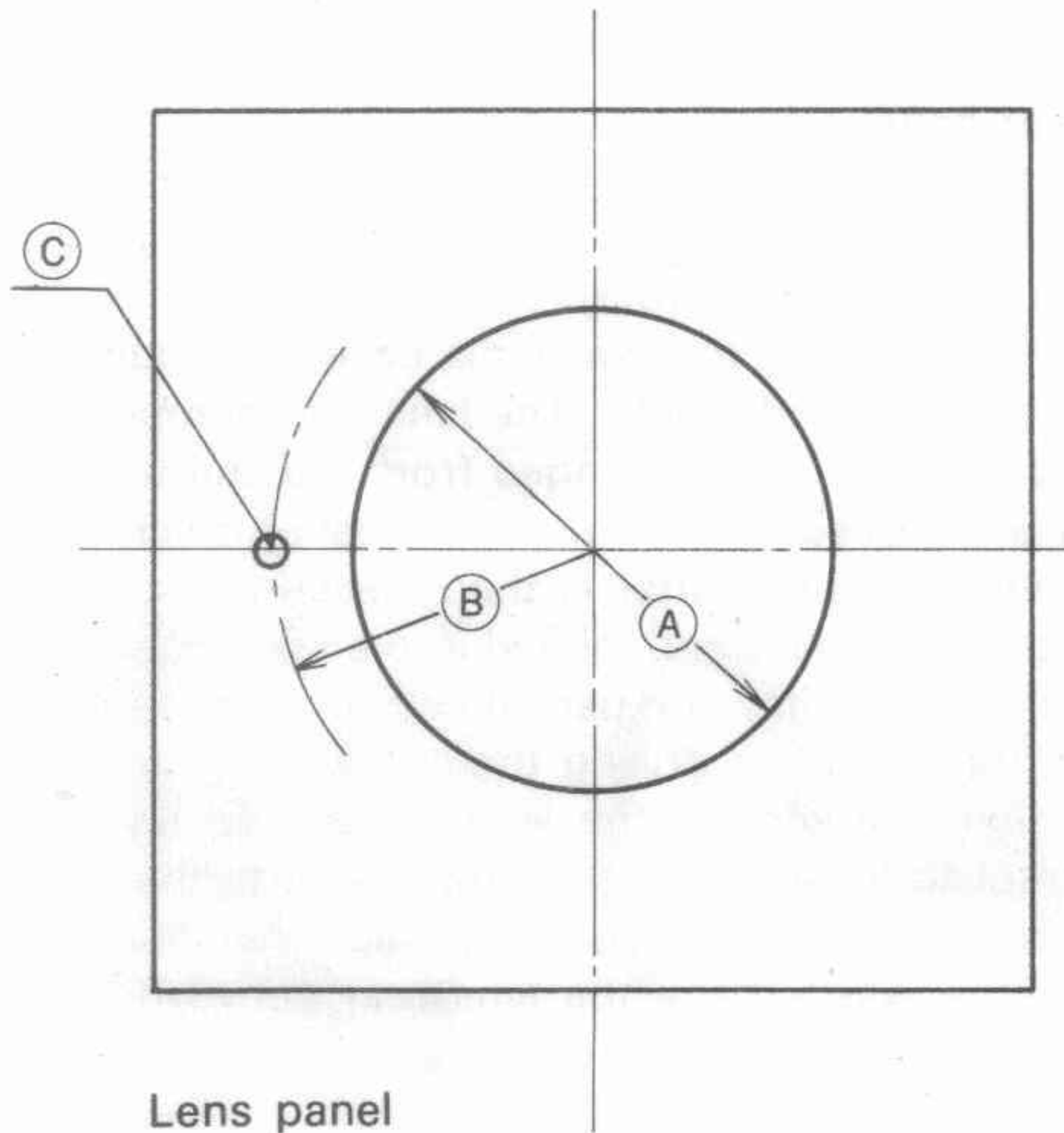
Position the shutter 6mm above center of the panel hole so that the optical axis of the lens falls in the center of the light shielding ring. As in the case of wooden panels, the washer is screwed on to the front side of the panel.

3. To mount the Copal No.1 shutter on a small lens panel, use the Adapter Ring C—1 without washer.

● Wooden lens panel

Thick lens panels, such as those made of wood, require the use of a special washer. (The retaining ring serves as the washer in the case of Copal No.3).

First, a hole for inserting the washer is bored through the lens panel at the specified point. The lens rear component and retaining ring is next disengaged from the shutter and **the stop pin is removed**, after which the washer is screwed on to the shutter. The shutter is then placed against the front side of the lens board and moved into a position which will show the scales plainly and permit easy manipulation of the levers. The points for drilling the screw holes for the washer are then marked on the lens panel. Finally, the washer is removed from the shutter and affixed to the front side of the lens panel with screws after which the shutter is screwed into the washer and the lens rear component is screwed into the shutter.



Shutter	A Panel hole diameter	C Stop pin hole		
		B Distance from panel hole center	Hole diameter	Hole depth
Copal No.0	35.0mm	18mm	2.2mm	1.5mm
Copal No.1	42.0mm	22mm	2.2mm	1.5mm
Copal No.3	66.0mm	39mm	3.2mm	1.5mm

■ HOW TO OPERATE THE SHUTTER

● Procedure

- ① Set the shutter speed with the shutter speed ring.
- ② Cock the shutter with the shutter cocking lever.
(Copal No.3 shutter will show a red sign when the shutter is cocked).
- ③ Open the shutter blades with the press focus lever, compose your picture and focus the lens.
- ④ Set the aperture with the aperture control lever.
- ⑤ Close the shutter blades with the press focus lever, load the film holder and lift the holder's sliding lid.
- ⑥ Trip the shutter by depressing the shutter release lever.

Notes : ① Be sure to close the shutter blades with the press focus lever before loading the film holder because the film will be exposed to light if the holder's sliding lid is lifted while the shutter blades are open.

② When taking pictures, always trip the shutter with a cable release.

● Press focus lever

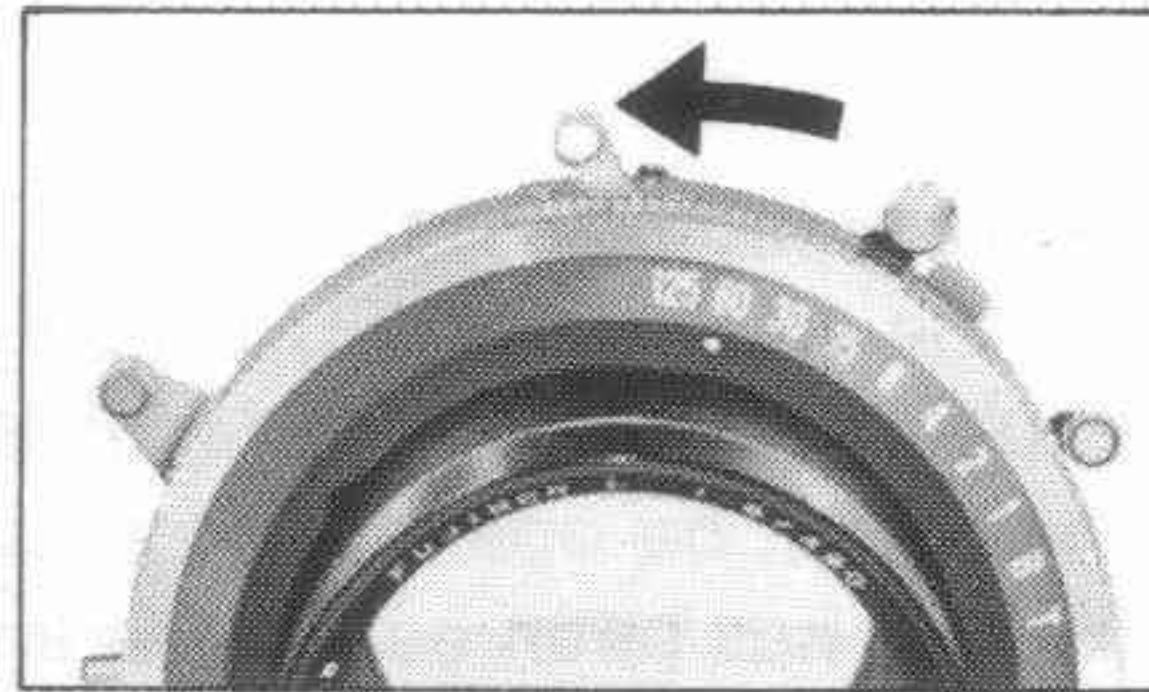
All the shutters on FUJINON PROFESSIONAL LENSES are equipped with a press focus lever. The shutter blades can, therefore, be opened for focusing and composing after the shutter has been cocked at any shutter speed (see page 9). The shutter blades are opened by pushing the press focus lever counter-clockwise and closed by returning it to normal position.

Notes : ① If the shutter is tripped with the press focus lever returned only part of the way back to normal position, the blades may not open even though the normal shutter sound may be heard. **The press focus lever should always be returned to normal position before tripping the shutter.**

- ② Always return the press focus lever to normal position and be sure to trip the shutter before putting the shutter away for safekeeping.



Copal No.1



Copal No.3

●Flash synchronization

This shutter is provided with an X-contact socket to prevent misswitching and synchronization errors. It will synchronize with electronic flash at all speeds and at a speed of 1/30-sec. or slower with M-class flash bulbs.

Note : Some commercially available electronic flash and flash bulbs may overload the sync contact with current and damage it. The best thing to do in this case is to discuss the matter over with the flash manufacturer and provide some means for protecting the sync contact.

●Shutter care

- 1.FUJINON lens shutters are products of top-class manufacturers and are built to last, but they are high precision instruments and may not operate as they should if the levers are bent by pressure and shock. Every care should be taken to avoid shock when carrying them about.
- 2.Always check the shutter operation before use and make sure it synchronizes properly.
- 3.Lenses and shutters are, on the whole, made for use in normal temperature. Freezing temperature can cause faulty operation and even damage the lens and shutter. If you are using your lens under freezing conditions, be sure to ask for prior advice at your nearest Fujica Service Station.
- 4.Be sure to turn in your lens for cleaning if it has been exposed to dust, sand and salt-water atmosphere while shooting outdoors, especially beach scenes.
- 5.Do not use oil on the shutter.
- 6.Make it a rule to turn in your lens regularly at your nearest Fujica Service Station for an overhaul. Your lens will last longer and give you better service if you do because it will be returned thoroughly cleaned and with all expendable parts replaced.

■FUJINON SF LENSES

1. These lenses are designed for use with a grid (patent pending) for taking pictures which blend softness with sharpness.
2. They are easy to focus since they are thoroughly corrected for color aberration and the picture will turn out exactly as it is seen on the focusing screen.
3. They are lavishly designed to provide a large image circle and a color balance equal to that of other FUJINON lenses.
4. They save time and effort since they require hardly any corrective manipulation.
5. Maximum softness is attained with the lens fully open. The softness gradually tails off as the aperture is closed down until at f/16 they are no different from any other lens.
6. Definition can be freely varied with the grid and aperture as well as through defocussing techniques.
7. On the whole, portraits taken with a soft focus lens will tend to lose some of their brightness in the highlight areas. To keep the highlights bright, expose the hair to the highest light.

■HOW TO USE

The spherical aberration of these lenses has been retained to enable them to produce the desired effects. Thorough acquaintance with the effects they will produce is, therefore, necessary in order to make the most of what they can offer, because the picture will turn out differently depending on how they are focused or defocused, as well as on the aperture used and on whether or not the picture is taken with the grid on or off and the type of grid used.

●Focusing

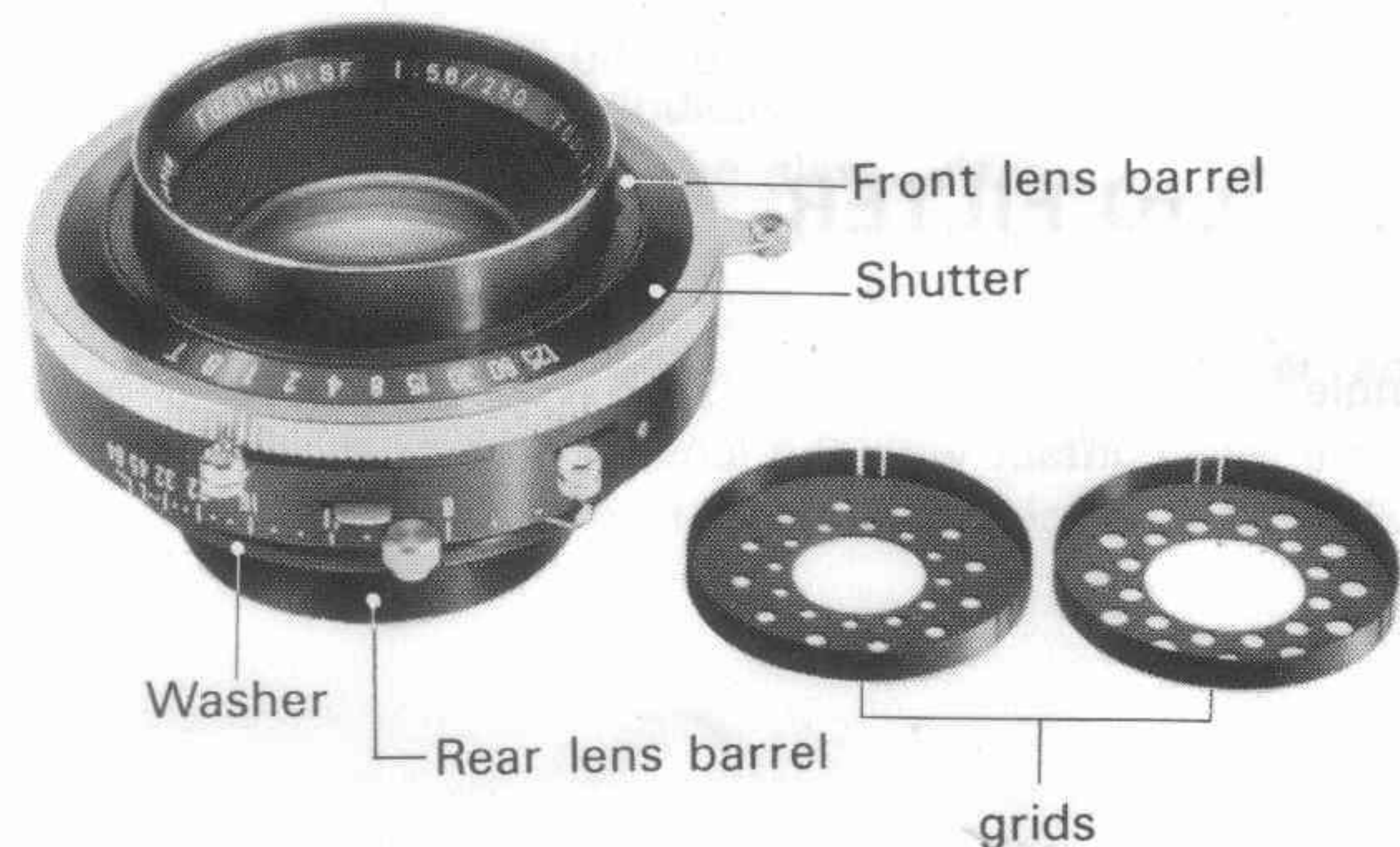
The intended effects may not be possible if the lens is first focused with the aperture fully open then afterwards closed down to take the picture. The correct focusing procedure is outlined below.

1. Focusing the lens with the aperture set for exposure

With soft focus lenses, the case is not the same as other types of lenses in terms of focusing. It is advisable to adjust the lens while watching the soft effect it will produce.

2. Focusing the lens with the aperture closed down

The aperture is set for exposure then closed down by 1 or 2 stops for focusing the lens on a vital point of the picture, e.g., on the catchlight in the case of portraits. The aperture is then reset for making the exposure.



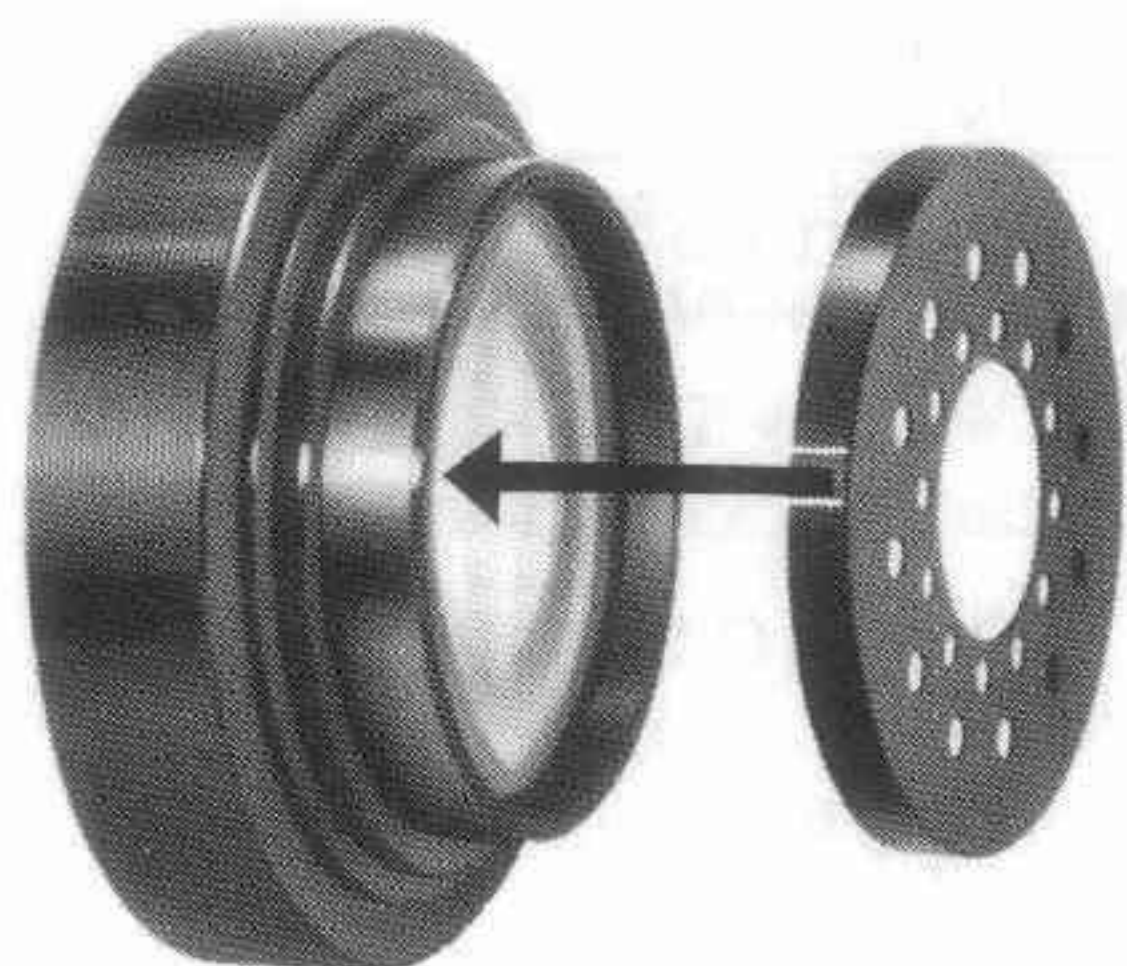
● How to use grid

The grid enables the FUJINON FS LENSES to yield maximum soft-effect pictures.

1. To mount a grid on the lens, first disengage the front lens barrel by turning it counter-clockwise. Next, fit the grid on the back end of the front lens barrel and screw the barrel tightly back into place.
2. Normally, the standard soft-effect is yielded at F9 (using the Yellow Grid) or F10 (using the Red Grid).
3. The grid requires the use of apertures differing from those for normal exposure. The following table gives the corrected apertures for the grid.

Grid	Aperture (f-stops)				
Without grid (normal exposure)	5.6 • • 8 • • 11 • • 16 • • 22				
Yellow grid	8	9	10 11	16	22
Red grid	10	11	12	16	22

- Notes :** ① A camera with an assembly type wooden dark box may not produce a correct picture even if it is used properly if the focusing screen is not in proper position relative to the film plane.
- ② The lens barrel can come apart and drop to the floor if it is not tightly screwed on after fitting on a grid.
- ③ If a peculiar blur shows on the picture taken with a grid on the lens, the exposure should be made without the grid.



Front lens barrel

The grid is attached to the back end of the front lens barrel.

■ LENS HOOD

Though Fujinon Professional Lenses have an electron beam coating (EBC), it may not always assure complete protection against flare and ghost images. If you feel that light reflections may cause adverse effects on your picture, use the lens hood depending on the lighting conditions.

■ SOLID FILTER

Care is required when using a solid filter with an extra-wide angle lens such as the FUJINON SWD because the filter will come into contact with the lens surface or the image circle will tend to become somewhat smaller.

■LENS MAINTENANCE AND CARE

- 1.Avoid dust and finger marks on the lens glass. Always put the front and rear caps on before putting the lens away for safekeeping and keep it away from heat and moisture.
- 2.Lenses should be periodically dusted off with an air blower but avoid wiping the glass surface too frequently with cloth. Finger marks and soil on the lens glass should be wiped off with lens cleaning paper moistened in lens cleaning fluid beginning from the center and moving out toward the edges in spiral motion.

■FUJINON LENS ACCESSORIES

●Washer

S—0 : Use with Copal No.0 shutters.

C—1 : Use with Copal No.1 shutter.

C—3 : Use with Copal No.3 shutter.

■FUJI PROFESSIONAL SERIES FUJINON LENSES

Here is a list which covers practically every conceivable picture-taking situation

Lens Designation			Shutter	Image circle
FUJINON · SWD (SUPER-WIDE DELUXE)	1 : 5.6	f=65mm	No.0	169mm
	1 : 5.6	f=75mm	No.0	196mm
	1 : 5.6	f=90mm	No.0	236mm
FUJINON · SW (SUPER-WIDE)	1 : 8	f=90mm	No.0	216mm
	1 : 8	f=105mm	No.0	250mm
	1 : 8	f=125mm	No.0	300mm

Lens Designation		Shutter	Image circle
FUJINON · W (WIDE)	1 : 5.6 f=105mm	No.0	162mm
	1 : 5.6 f=125mm	No.0	198mm
	1 : 5.6 f=135mm	No.0	206mm
	1 : 5.6 f=150mm	No.0	224mm
	1 : 5.6 f=180mm	No.1	280mm
	1 : 5.6 f=210mm	No.1	300mm
	1 : 6.3 f=250mm	No.1	312mm
	1 : 5.6 f=300mm	No.3	420mm
	1 : 6.3 f=360mm	No.3	485mm

Lens Designation		Shutter	Image circle
FUJINON · A (APOCHROMATIC)	1 : 9 f=180mm	No.0	252mm
	1 : 9 f=240mm	No.0	336mm
FUJINON · L (LONG FOCUS)	1 : 5.6 f=210mm	No.1	240mm
FUJINON · C (COMPACT)	1 : 8.5 f=300mm	No.1	380mm
	1 : 12.5 f=450mm	No.1	486mm
	1 : 11.5 f=600mm	No.3	620mm

Lens Designation		Shutter	Image circle
FUJINON · T (TELE-TYPE)	1 : 8 f=300mm	No.0	213mm
	1 : 8 f=400mm	No.1	220mm
	1 : 12 f=600mm	No.1	260mm
FUJINON · SF (SOFT FOCUS)	1 : 5.6 f=180mm	No.1	200mm
	1 : 5.6 f=250mm	No.3	300mm



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