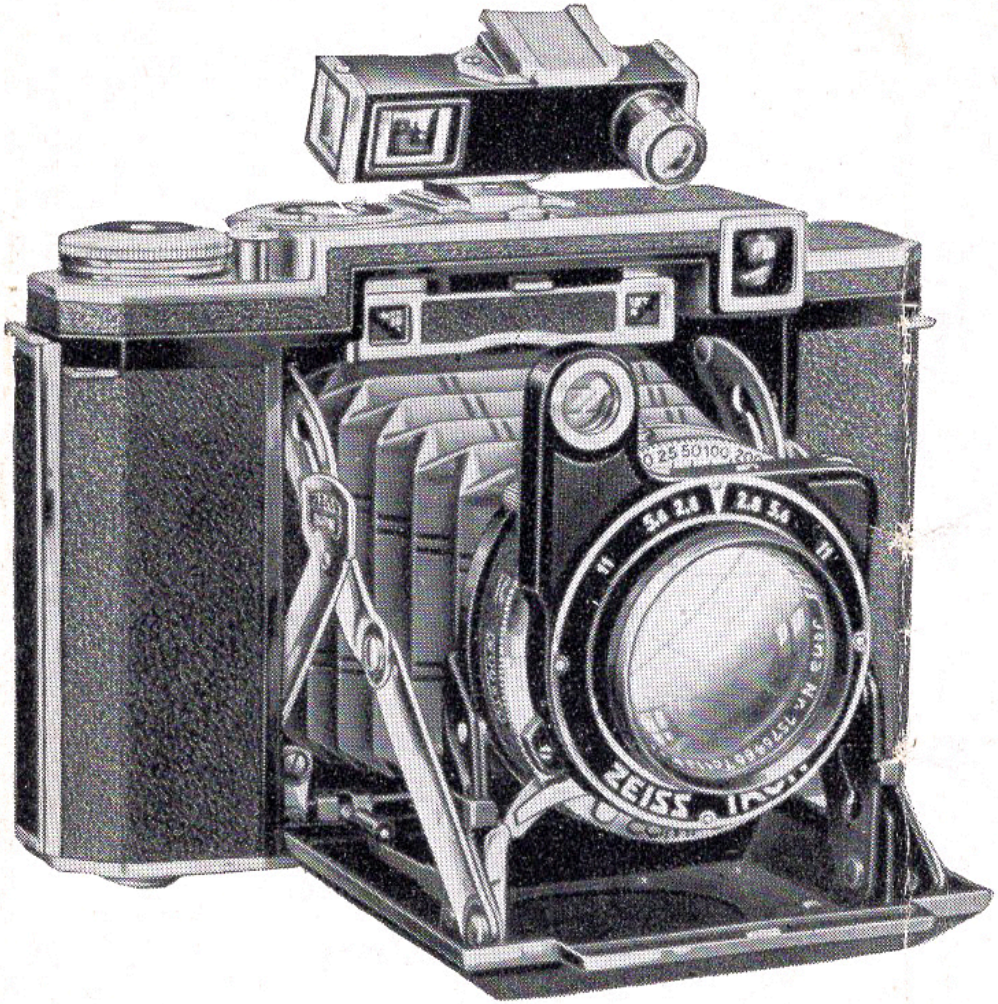

Instructions for using the optical close-up focussing attachment for the Super Ikonta $2\,^1/_4 \times 2\,^1/_4$" (6 × 6 cm)

The attachment comprises: A distance meter which is fitted into the finder shoe of the camera, three distance meter lenses marked 50, 30 and 20 and three supplementary lenses marked 1341/50, /30 and /20.

B 2552 E.

When taking a picture the camera lens is focussed on infinity and the appropriate supplementary lens put.

The distance of the subject when using the various supplementary lenses is:

47 cm (19 ins. approx.) with lens "50"
30 cm (12 ins. approx.) with lens "30"
17.5 cm (7 ins. approx.) with lens "20".

At these distances the size of field covered is:

$13\,^3/_4 \times 13\,^3/_4$ inches with lens "50" corresponding to a reduction ratio of 1:5.6
$8\,^3/_4 \times 8\,^3/_4$ inches with lens "30" corresponding to a reduction ratio of 1:3.6
$4\,^3/_4 \times 4\,^3/_4$ inches with lens "20" corresponding to a reduction ratio of 1:2.

With a disc of confusion $f/1000 = 0.08$ mm, the depth of focus is as follows:

	$f/5.6$		$f/11$		$f/22$	
	from	to	from	to	from	to
when using lens "50"	45.5	48.6 cm	44.2	50 cm	41.7	54.2 cm
when using lens "30"	29.4	30.7 cm	28.8	31.3 cm	27.7	32.8 cm
when using lens "20"	17.3	17.7 cm	17.1	18 cm	16.7	18.4 cm

When using these supplementary lenses it is specially important to use the correct aperture. It is well known that supplementary lenses make it necessary to "Stop down" in order to get sharpness all over the picture, and especially when working at such short distances from the camera a normal stop of say $f/5.6$ gives scarcely any depth of focus. As practically only plastic objects are photographed, they naturally call for a large depth of focus and it is therefore advisable to stop down as far as is convenient to increase the exposure time. When using the camera in the hand, $f/8$ to $f/11$ is recommended as a satisfactory aperture. (For exposures on the tripod even smaller apertures should be used.) In exceptional cases only can the aperture of $f/5.6$ be used to advantage.

The close-up distance meter is fitted with its foot in the finder shoe of the camera. It is provided with two different feet at top and bottom, one being marked "50 and 30" and the other "20". These numbers correspond to the numbers of the respective supplementary lenses.

The distance meter lens (No. 20, 30, or 50) is then inserted corresponding with the supplementary lens on the camera that is in use. The small pin under the milled ring of the distance meter lens should engage in the groove under the mount.

When set up, the distance meter is at the same time a view finder adjusted for parallax, and the picture seen through corresponds approximately with the picture taken by the camera. The lighter field of sight of the "double picture" in the centre shows the centre of the camera field.
Now, while looking through the close-up distance meter, gradually come nearer to the subject which is being taken until the double image becomes one image in the same manner as when employing the built-in distance meter of the Super Ikonta camera. When this is seen to have taken place, the camera is at the correct distance for the exposure.

Note:
It should be noted that the focussing attachment will give correct results only when used with the supplementary lenses and distance meter lenses that bear the same serial number at the small distance meter. If any component is lost or broken, the attachment should be returned for the replacement to be made.

Z E I S S I K O N A G. D R E S D E N

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