

# **Zeiss Proxar Lenses**

**for the conversion of the Tessars  
into close-range and wide-angle lenses.**



The arrangement by which this picture was taken is described on p. 7.

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TESSAR  $f = 13,5 +$  PROXARLINSE

"	13,5 +	"	2
"	13,5 +	"	1,5
"	13,5 +	"	1
"	13,5 +	"	0,5

TESSAR  $f = 13,5 +$  $f_{\text{comb.}} = 11 \text{ cm} ; k_{\infty} = 10 \text{ cm}$ 

"	11,5 "	"	11 "
"	12 "	"	11,5 "
"	13 "	"	12,5 "

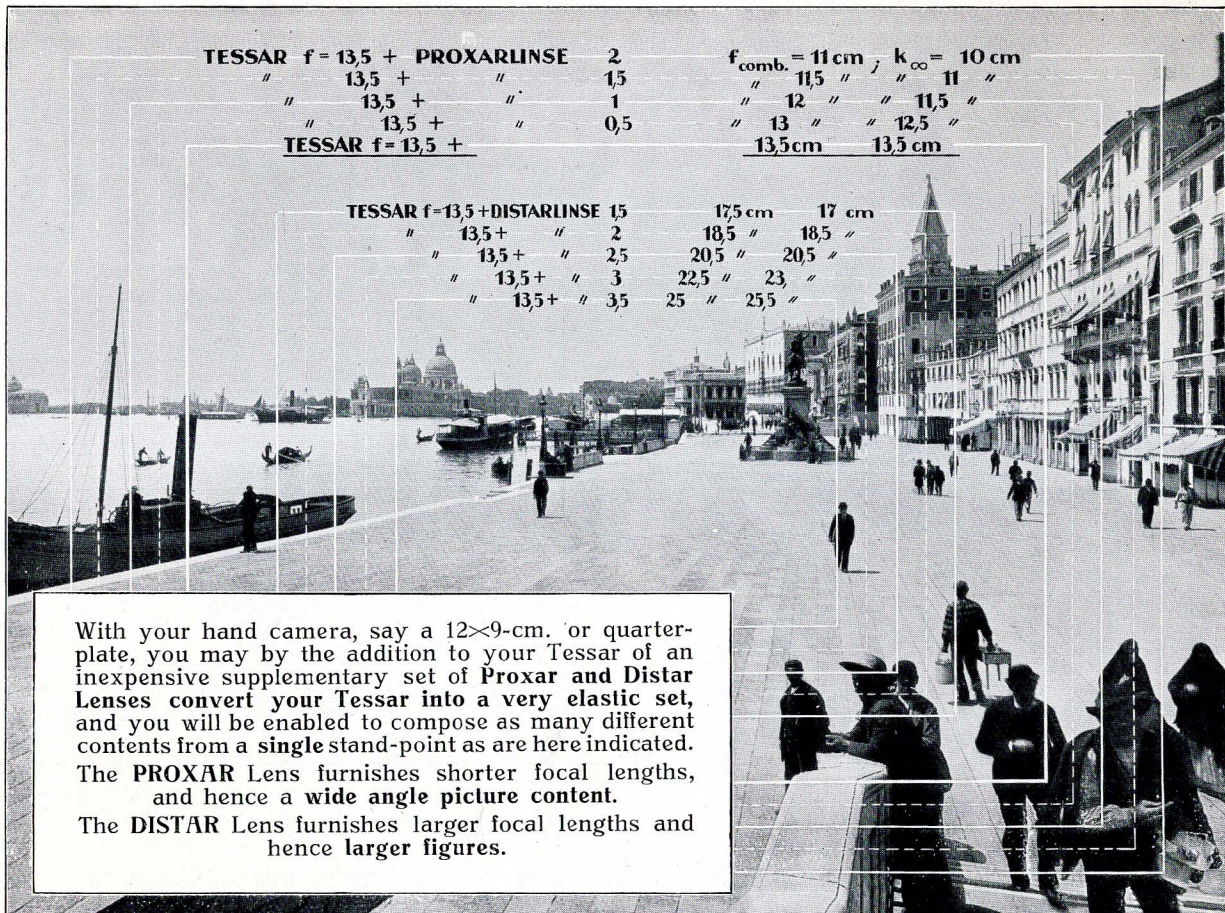
13,5 cm      13,5 cmTESSAR  $f = 13,5 +$  DISTARLINSE

"	13,5 +	"	2	17,5 cm	17 cm
"	13,5 +	"	2,5	18,5 "	18,5 "
"	13,5 +	"	3	20,5 "	20,5 "
"	13,5 +	"	3,5	22,5 "	23 "
"	13,5 +	"	3,5	25 "	25,5 "

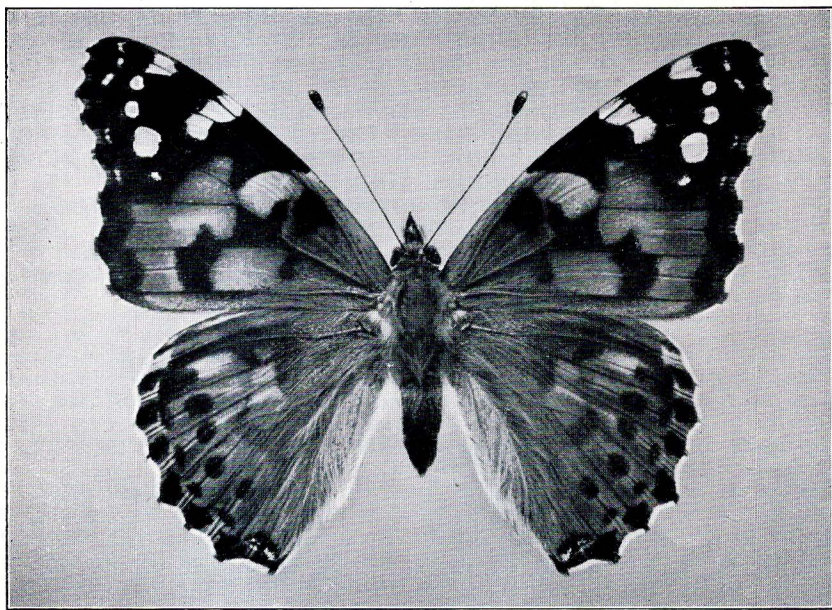
With your hand camera, say a 12x9-cm. or quarter-plate, you may by the addition to your Tessar of an inexpensive supplementary set of Proxar and Distar Lenses convert your Tessar into a very elastic set, and you will be enabled to compose as many different contents from a single stand-point as are here indicated.

The PROXAR Lens furnishes shorter focal lengths, and hence a wide angle picture content.

The DISTAR Lens furnishes larger focal lengths and hence larger figures.







Unenlarged reprint of a photograph taken with a  $12 \times 9$ -camera directed vertically downward and a Tessar F/4.5,  $f=13.5$  cm. supplemented by a Proxar Lens 2/III furnishing a combined focus of 11 cm. Tessar stop F/12.5, total relat. apert. F/10.

Object distance 17 cm.; double camera extension 30 cm.

*Red Admiral*, natural width 52 mm.; Scale ratio about  $1\frac{3}{4}$  nat. size.

A like photograph is readily obtainable on an autochrome or Agfa colour plate.

For a number of years we have made and sold at an ever increasing rate our so-called **Distar Lenses**, which when attached to the front of the Tessar, amplify the resources of the latter in a simple and convenient manner so as to provide its owner with an extensive set of convertible lenses of **longer foci** than that possessed by the Tessar. Thus a Tessar F/4.5,  $f=13.5$  cm., by the addition of various Distar Lenses, can be made to furnish the focal lengths 17.5, 18.5, 20.5, 22.5, 25 cm., that is to say, the figures appearing on the photograph become enlarged 1.25 to 1.8 times.

We have now proceeded to extend the resources of the Tessar as a hand camera lens in the other direction as well. To this end we have devised our **Proxar Lenses**. This is the name which we have given to simple front lens attachments with a converging effect. They serve to **shorten the focal length** of the Tessar and thereby render the latter available for use in two new directions which greatly extend the artistic merit of the result and give the operator much greater freedom of choice. They render the Tessars available

1. For obtaining photographs with large figures, since they are taken at close range, for instance with the standard single extension of the camera at distances down to 30 or 40 cm., or with double extension at distances down to less than 20 cm.

In order to indicate by the name of the lenses this possibility which they afford of extending the uses of the Tessar Lens we have given the lenses the new name of *Proxar Lenses*.

II. **For obtaining wide-angle photographs** at moderate and great distances within a room, in the street, in the open country, among high mountains.

We do not propose to burden this booklet with theoretical explanations, showing in what manner the two modes of extension in the use of the Tessar are based upon the converging effect of the Proxar Lenses.

The Proxar Lenses are uncemented converging lenses of a meniscal profile and so mounted that they will slip easily and in their correct positions upon the hood of the Tessar. Like the Distar Lenses, they bear the name of our firm and the factory number, the full legend of which serves as a guarantee of the genuineness of the lens, for example,

**"PROXAR LENS 2/III, No. 64 505 CARL ZEISS, JENA."**

The arabic numeral 2 signifies, as with the Distar Lenses and spectacle lenses, the power of the lens in terms of dioptres, so that the "Proxar Lens 2" has in itself a focal length of  $\frac{1}{2}$  metre, while the "Proxar lens 0.5" has a focal length of 1/0.5, i. e. 2 metres. The Proxar Lens 2 has therefore a far greater focus reducing effect upon the Tessar than either the Proxar Lens 1 or 0.5 (see lists on pp. 6 and 11).

*The Proxar Lens is computed on the same principle of correction as the Distar Lens, so that when combined with the Tessar it will furnish a large well defined field of view.* The focal length being shortened, it follows that with unchanged stops the "relative aperture" **increases**, and so does in greater measure the **rapidity**. Thus, Tessar F/4.5,  $f=15$  cm., when combined with the Proxar Lens 2 has its focal length reduced to  $f=11.5$  cm. and, with the Tessar stop set to F/4.5, the relative aperture becomes F/3.7, while with the Tessar stop set to F/9 it becomes F/7.

It is not pretended that the superb definition of the Tessar remains unaffected when these combinations are made. The depreciation remains, however, within such moderate limits that occasionally the Tessar stop may be left at its full aperture, for example when taking portraits with the Tessar and a Proxar Lens combined, assuming this to be compatible with the conditions of depth obtaining in any given case. In other circumstances the Tessar requires to be stopped down to F/6.3 or F/9, etc., according to the fineness of the details which are to be brought out in the photograph. The degree of stopping, in fact, increases with the strength of the Proxar Lens and with the initial focal length of the Tessar. A few examples are reproduced in our illustrations, as far as this can be done with a satisfactory degree of sharpness in photographically produced book illustrations.

It is advisable to focus sharply on the ground glass plate with the same stop with which it is proposed to take the photograph.

As their strength increases, the Proxar Lenses give rise to so-called cushion-shaped distortion toward the edge of the plate when the field of view is very large, but the amount of distortion is still quite passable, and generally it is only in architectural photographs taken with the stronger Proxar Lenses that it is desirable to avoid rectilinear contours at the boundary of the picture (see p. 10, top).

Occasionally the scope of the two attachment lenses may be considerably extended, or supplemented so as to fill gaps, by combining several Proxar Lenses or a Proxar with a Distar Lens, both being used in front of the Tessar, one slipped upon the other or both at the front of or at the rear of the Tessar. Those conversant with the subject need only be reminded that the dioptre numbers, and accordingly also in a certain sense their effects, are additive. Naturally, these combinations increase the number of the reflecting surfaces, which necessitates the exercise of some skill in arranging matters experimentally, so that on the whole we do not advocate these artifices.

To assist the user in distinguishing between the Proxar and Distar Lenses the latter are contained in black mounts, and the mounts of the Proxar Lenses are lacquered brown.



## I. Taking Photographs at close ranges and showing large figures.

Hand cameras with an extension allowing no latitude, i. e. cameras with a baseboard extension having the lens mounted in a Compur shutter and with single extension as well as folding cameras having the lens in a helical focusing mount, cannot be focused sharply for very short distances. In the case of 12×9-cm. cameras the range is generally from  $\infty$  to 2 or at most  $1\frac{1}{2}$  metre, in that of 9×6-cm. cameras from  $\infty$  to  $1\frac{1}{2}$  metre, rarely to 1 metre. It is therefore in these cases not possible to obtain figures which on an average are as large as  $\frac{1}{10}$  natural size. In such cases, if you wish to compose a picture or to photograph an object in  $\frac{1}{5}$  natural size or even on a larger scale, there is nothing for it but to enlarge the negative. This, of course, can be done easily enough, since there are many well designed models of enlarging apparatus for the use of amateurs to be found everywhere. There are, however, many cases where it is a distinct advantage to be able to obtain a **direct photograph at close range and accordingly with large figures** and where the result so obtained is better than anything obtainable by indirect means. It is here where the "Proxar Lenses" furnish the best solution.



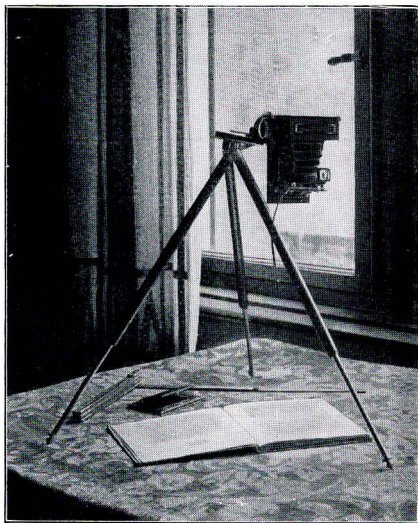
### Einleitung.

§. 1.



Zu wahren Art das Clavier zu spielen, gehören hauptsäch-  
lichlich drei Stücke, welche so genau mit einander  
verbunden sind, daß eines ohne das andere weder  
seyn kan, noch darf; nemlich die rechte Finger-Setzung,  
die guten Manieren, und der gute Vortrag.

§. 2. Da diese Stücke nicht allzu defant sind, und folglich  
so off-bambirdt geübet worden: so hat man mehrertheils Clavier-  
Spieler gehört, welche noch einer off-bambirden Stücke endlich ge-  
lernet haben, verständigern Zuhörern, das Clavier durch ihr Sy-  
tem eckelhaft zu machen. Man hat in ihrem Spielen das runde,  
deutliche und natürliche vermisht; hingegen, an statt dessen laute  
Orbache, Poltern und Stölpern angetroffen. Indem alle andere  
Instrumente haben singen gelernt; so ist bloß das Clavier hiezu  
nicht geblieben, und hat, an statt weniger unterbaltenen  
Nern, mit vielen duntzen Figuren sich abgeben müßen, dergestalt  
daß



Photograph 9×6 cm.; distance of the object 35 cm; camera extension 11.5 cm.; Tessar F/4.5,  $f=10.5$  cm. supplemented by a Proxar lens 2/Co\* to a total length of 9 cm., which brings the scale of the photograph to  $1:2\frac{1}{2}$  natural size. Tessar stop F/12.5; total relative aperture  $f/10$ , exposure 10 seconds; on table set to face eastern light.

The procedure is, say, as follows: Supposing the available camera to be a 12×9-cm. camera with a Tessar F/4.5,  $f=13.5$  cm. and capable of focusing within 2 metres. Set it for infinity and slip a "0.5 Proxar Lens" in front of the Tessar. The camera will thus at the outset be in focus for a distance equal to the focal length of the Proxar lens, i. e. for 2 metres. Now take advantage of the range allowed by the focusing scale and gradually proceed

on the distance scale to '2 metres'. The distance at which the "Tessar + Proxar Lens 0.5" combination gives a sharp focus will then reduce via  $1\frac{1}{2}$  metre down to 1 metre. In the event of the camera having a focusing range extending from infinity to 1 metre, supposing it to be, say, a  $9\times 6$ -cm. camera with a Tessar  $f=10.5$  cm., in that case the limit of the distance scale may be extended by means of a 'Proxar Lens 1' from 1 metre to  $\frac{1}{2}$  metre.

Continuing in this way, the diminished distance obtained by the use of the Proxar lens of low power may in either case be further reduced to a considerable extent with the aid of Proxar lenses of higher powers, as will be seen from the following tabular arrangement.

a) For the Tessar fitted to the camera let  $\infty$  to 2 metres be the focusing range obtainable by varying the extension of the baseboard or the position of the helical mount. Then, using the Tessar in combination with a

Proxar Lens	0.5	1	1.5	2
<i>the following distances a can be focused:</i>				
when the Tessar is set on	a =	a =	a =	a =
the distance scale from $\infty$	2 m.	1 m.	67 cm.	50 cm.
to	to	to	to	to
2 metres	1 m.	67 cm.	50 cm.	40 cm.

*The scale ratio n then becomes:*

say, in the case of Tessar $f=13.5$ cm.,	n up to about 1:7 nat. size	n up to about 1:4 $\frac{1}{2}$ nat. size	n up to about 1:3 $\frac{1}{2}$ nat. size	n up to about 1:2 $\frac{3}{4}$ nat. size
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*that is to say, you are able to photograph:*

natural size	size of figures up to			
a bust about 70 cm. high	10 cm.	—	—	—
a child's head about 10 cm. long	1.4 cm.	2.2 cm.	3 cm.	—
a man's hand about 20 cm. long	2.9 cm.	4.4 cm.	6 cm.	7.5 cm.
a butterfly about 5 cm. wide	0.7 cm.	1.1 cm.	1.5 cm.	1.8 cm.
an opened book about $30\times 20$ cm.	$3\times 4.3$ cm.	$4.5\times 6.7$ cm.	$6.0\times 8.5$ cm.	$7.5\times 11$ cm.

b) For the Tessar fitted to the camera let  $\infty$  to 1 metre be the focusing range obtainable by varying the extension of the baseboard or the position of the helical mount. Then, using the Tessar in combination with

Proxar Lens	1	2
<i>the following distances a can be focused:</i>		
when the Tessar is set on	a =	a =
the distance scale from $\infty$	1 m.	$\frac{1}{2}$ m.
to	to	to
1 metre	$\frac{1}{2}$ m.	$\frac{1}{4}$ m.

*The scale ratio n then becomes:*

say, in the case of Tessar $f=10.5$ cm.,	n to about 1:4 $\frac{1}{2}$ nat. size	n to about 1:2 $\frac{3}{4}$ nat. size
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*that is to say, you are able to photograph:*

natural size	size of figures up to	
a child's head about 10 cm. high	2.3 cm.	—
a man's hand about 20 cm. long	4.6 cm.	7.2 cm.
a butterfly about 5 cm. wide	1.2 cm.	1.8 cm.
a postcard $14.8\times 10.5$ cm.	$2.4\times 3.5$ cm.	$3.9\times 5.3$ cm.





The 12×9-cm. photograph of the baby shown on the frontispiece was made in this way: Tessar F/4.5,  $f=13.5$  cm. with Proxar Lens 2/III, giving a combined focal length  $f_c=11$  cm.; object distance 50 cm.; camera extension 14 cm. Tessar stop F/10 to ensure sufficient definition in depth; total relative aperture F/8.

Close to, and even still closer, a mother will look at her child, and so she would like to see it in the picture. — Do you notice any exaggerated perspective in the frontispiece? We do not see it.

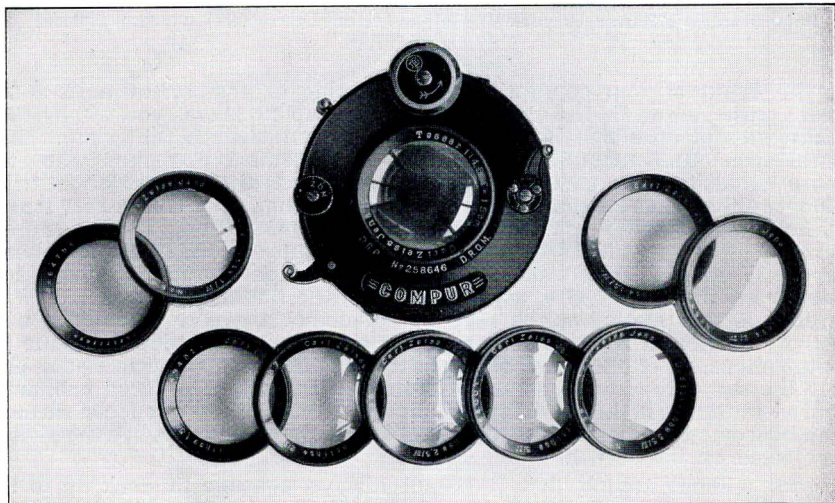
In the event of your camera having a double extension, say a 12×9-cm. camera with Tessar  $f=13.5$  cm. and extension up to 30 cm., you will be able, already without an added Proxar lens, to obtain a picture in rather more than natural size. Unit magnification, it will be remembered, results when the camera extension and, at the same time, the object distance are about twice as long as the focal length, that is, about 27 cm. long. If now a Proxar lens 2, say, be added to the Tessar the focal length becomes 11 cm., and the camera extension of 30 cm. admits of the object being approached within a distance of about 17 cm., in which case the object may be photographed enlarged up to about  $1\frac{3}{4}$  its natural size, as, for instance, the butterfly on page 3. With reference to this photograph it may be noted that we have repeated it with excellent results in natural colours upon an autochrome plate with the requisite extension of the time of exposure, but in other respects under precisely the same conditions as those stated on page 3. The large brilliantly coloured butterfly makes a delightful picture already when one looks through the autochrome transparent, but the effect is greatly enhanced when the picture is projected on the screen.

It goes without saying that it is not always possible to work up to the limits indicated above in the matter of the object distance and the scale ratio in such cases where a photograph taken under like conditions would introduce a strained perspective, for instance in the case of faces, or where the requisite

definition in depth would necessitate the use of very small stops and consequently prolong the exposure beyond a reasonable measure. All the same, there still remains a profusion of cases where without the Proxar lens it would not be practicable to overcome technical difficulties and obtain artistically satisfying results.

Some of our illustrations may serve to suggest a wide field for a most gratifying use of Proxar Lenses. We are referring to **photographs taken vertically or at a steep downward angle**. The only reason why hitherto little has been done in this way is probably that the focal range of the hand cameras with single extension could not cope with the short object distance at which the lens was required to work. There are, on the other hand, numerous cases where it is more natural or indeed imperative that the object which is to be taken should occupy a horizontal position, say on the ground (such as animals, flowers, stones) or on a table (such as books, letters, etc.), or in a child's perambulator, since it may also only then be possible to ensure proper lighting. The Proxar lenses enable any amateur to apply this gratifying method of vertical photography, even with a single extension camera, and there is little doubt that the existence of the Proxar lenses will greatly popularise the delightful work which can be done in this way. The tripod stand requires for this purpose to be furnished with a camera filter (see illustration on page 5), various inexpensive forms of which are to be found on the market. To make full and convenient use of the table supplied with each Proxar lens it is also advisable to add a three-foot rule or a tape measure 1 metre long.

The Proxar Lenses furnish a valuable and convenient means for the purpose of **taking photographs for the illustration of technical and scientific lectures on the screen**. Incidentally it may be mentioned that they afford a possibility of developing the photographs straight away as lantern slides or, with the additional aid of a small reversing mirror or prism, of photographing writing, printed matter, etc. directly upon the paper and to develop this as a positive print.



### An inexpensive Convertible Set providing ten focal lengths.

Tessar F/4.5,  $f = 13.5$  cm. with five Distar Lenses and four Proxar Lenses. (See pp. 2, 10 and 12).



## II. Taking Wide-angle Photographs at moderately small and long distances ranging from a few yards to infinity.

It constantly happens to an amateur who understands his work as an artist, when about to take a picture in a room, in the street, in the open country, or in the mountains, that he would like the composition of his picture to show on the right or left, above or below, rather more than his Tessar is able to take in from the stand-point which he has selected and which may be the only one available for his purpose. If he cannot content himself with the composition of the picture, and knowing full well that a 12×9-cm. camera will not even by a miracle take a picture larger than 12×9 cm., his only way out is to reduce the focal length of his lens. This again is readily accomplished by the Proxar Lenses. They serve accordingly in the second instance for enabling a given hand camera to **extend the composition of the picture.**

The extent to which this may be done is shown numerically and diagrammatically in the reproductions on pp. 2 and 12. It will be seen that the Proxar Lenses, such as are at present available, afford a means of shortening the focal lengths of the primary lens and accordingly of extending the composition of the picture by an amount up to 30 per cent. For other frequently arising cases you will find the corresponding data in the tabular arrangement on page 11. Moreover, each Proxar Lens supplied is furnished with a small table containing the requisite numerical data for its use in the manner here described.



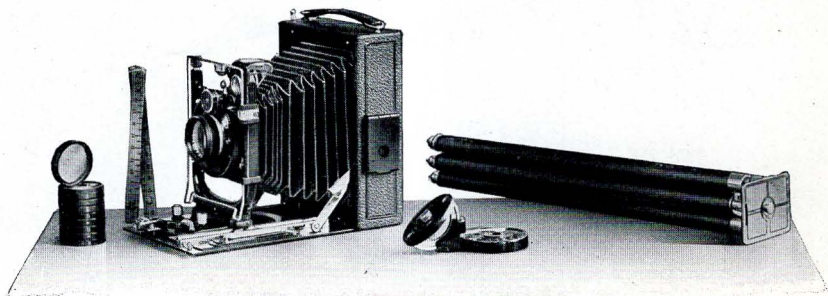
12×9-cm. Photograph taken in a room with "Tessar F/4.5,  $f = 13.5$  cm. + Proxar lens 2"  
Combined focal length  $f_c = 11$  cm. Tessar stop F/18, total relative aperture F/15.5.

There are no hard and fast rules by which it might be decided how far it is permissible to carry the shortening of the focal length, so that in this case judgment should be exercised as in the focal extension method, and in each case the required quality of the picture (see p. 4) should be the deciding factor. Thus, the cushion-shaped distortion to which the use of the more powerful Proxar Lenses gives rise may be found objectionably pronounced in the case of photographs taken in a room or in that of architectural pictures, where there are generally long straight lines. To give an instance, it is already somewhat risky to let the composition of the picture include elements as has been done in the case exemplified in the picture shown on page 2, where in the picture obtainable on a  $12 \times 9$ -cm. plate by a Tessar F/4.5,  $f=13.5$  cm. combined with a Proxar Lens 2 the vertical line of the contours of a house runs all along the edge of the plate. The interior photograph on p. 9 exhibits distinct signs of distortion. Moreover, when photographing indoors it is often advisable to guard against objectionable reflections by avoiding with a little more care than the standard lens demands the use of any excessively bright light within the visual compass of the lens. But, whatever the restrictions, certain it is that the effect of the **Proxar Lens**, simple and inexpensive though it is, will surprise its user.

The pictures on pages 1 and 12 illustrate also the effect produced by the **Distar Lenses** which are available for use with a Tessar  $f=13.5$  cm. on a  $12 \times 9$ -cm. camera chosen by way of an example. They serve to illustrate the wide range in the capacity of these convenient and inexpensive Proxar and Distar Lenses as a means of supplementing the resources of the Tessar, to say nothing of the convenience that any of them may be purchased at any time and added to an existing Tessar or its equipment. — The particulars relating to camera extensions in the picture on p. 2 and in the tables signify further that in the case of the collapsible cameras with fixed extension the Distar Lenses rarely enter into consideration, while the Proxar Lenses do so for taking photographs at close range, but not for wide-angle pictures at distances above 2 metres, since these cameras cannot have their extensions shortened, the focal range being solely variable either way by the helical lens mount;

that in the case of **baseboard cameras with single extension** the Distar Lenses can be turned to account within restricted limits only, whereas the Proxar lenses are generally available for taking full advantage of their resources both for close-range and wide-angle work;

that the **baseboard cameras with double extensions** admit of the unrestricted use of both Proxar and Distar Lenses in either direction.



View of a  $12 \times 9$ -cm. Baseboard Camera with its full equipment.



Proxar Lens	Codeword	For an Objective having an outside diameter of mm.	Primarily for use with				Tessar (initialies) + Proxar Lens gives approximately								
			Tessar 1)		Zeiss Mount	Shutter	Combined Focal length f c cm.	Camera Extension Ka 2) reckoned from stop to plate or film when focused for distance a =							
			F/	f =				∞ cm.	2 m. cm.	1 m. cm.	50 cm. cm.	40 cm. cm.	30 cm. cm.		
0,5/C <sub>0</sub> 1/C <sub>0</sub> 1,5/C <sub>0</sub> 2/C <sub>0</sub>	<i>Fopa</i> <i>Fopake</i> <i>Fopali</i> <i>Fopalos</i>	27,0	4.5 6.3 6.3	9 cm. 12 cm. 13.5 cm.	I I —	0/I 0/I 0	13.25 12.5 11.75 11.25	12.5 11.5 11.0 10.5	13.5 12.5 11.5 11.0	14.5 13.5 12.5 12.0	17.5 16.0 14.5 13.5	19.0 17.5 16.0 14.5	23.0 20.5 18.5 17.0		
0,5/C <sub>0*</sub> 1/C <sub>0*</sub> 1,5/C <sub>0*</sub> 2/C <sub>0*</sub>	<i>Fopalu</i> <i>Fopalys</i> <i>Fopama</i> <i>Fopame</i>		28,5	4.5 6.3	10.5 cm. 15 cm.	— —	0/I 0	10.25 10.0 9.5 9.0	9.5 9.0 8.5 8.5	10.5 10.5 9.0 9.5	11.0 10.5 9.5 9.5	12.5 11.5 11.0 10.5	13.5 12.5 11.5 11.0	15.0 14.0 13.0 12.5	
0,5/Coa 1/Coa 1,5/Coa 2/Coa	<i>Fopamir</i> <i>Fopamol</i> <i>Fopamus</i> <i>Fopanai</i>			29,8	4.5	12 cm.	—	0a	11.0 10.5 10.0 9.5	10.5 10.0 9.5 9.0	11.0 11.0 10.5 9.5	12.0 11.0 10.5 10.0	13.5 13.0 12.0 11.5	15.0 13.5 13.0 12.0	17.0 15.5 14.5 13.5
0,5/II 1/II 1,5/II 2/II	<i>Fopanal</i> <i>Fopaname</i> <i>Fopanasí</i> <i>Fopanea</i>				32,0	4.5 4.5 6.3 6.3	10.5 cm. 12 cm. 13.5 cm. 15 cm. 16.5 cm.	II II II —	— — — 1	16.0 15.0 14.0 13.0	15.0 14.0 13.0 12.0	16.5 15.0 14.0 13.0	18.0 16.5 15.0 14.0	22.5 20.0 18.0 17.0	25.5 22.5 20.0 18.5
0,5/III 1/III 1,5/III 2/III	<i>Fopanei</i> <i>Fopania</i> <i>Fopanide</i> <i>Fopanifi</i>	36,8				4.5 6.3	13.5 cm. 16.5 cm.	— III	1/III —	13.0 12.5 12.0 11.0	12.5 11.5 11.0 10.5	13.5 12.5 11.5 11.0	14.5 13.5 12.5 12.0	17.0 16.0 14.5 13.5	19.0 17.5 16.0 14.5
0,5/IV 1/IV 1,5/IV 2/IV	<i>Fopanigu</i> <i>Fopaniko</i> <i>Fopanire</i> <i>Fopanita</i>		41,8			4.5 4.5 6.3	13.5 cm. 15 cm. 18 cm. 21 cm.	IV IV IV IV	— 2/IV 2/IV 2/IV	14.0 13.5 12.5 12.0	13.5 12.5 11.5 11.0	14.5 13.5 13.5 11.5	15.5 14.5 14.5 12.5	19.0 17.5 16.0 14.5	21.0 19.0 17.5 16.0
0,5/VI 1/VI 1,5/VI	<i>Fopanivo</i> <i>Fopanizu</i> <i>Fopanoare</i>			50,9		4.5 4.5	16.5 cm. 18 cm.	VI VI VI	2/VI 2/VI 2/VI	15.5 14.5 14.0	15.0 14.0 13.0	16.5 15.0 14.0	18.0 16.5 15.0	22.0 20.0 18.0	25.0 22.5 20.0
0,5/VII 1/VII	<i>Fopano</i> <i>Fopanoam</i>				56,9	4.5	21 cm.	VII	3/VII	19.5 18.0	18.5 16.5	20.5 18.5	23.0 20.5	30.5 26.5	36.5 31.0

Other Proxar Lenses, especially for short focus Tessars and for small plate sizes are in preparation.

The Proxar Lenses, like the Distar Lenses, are supplied in convenient and durable cases together with cards furnishing in concise form all data necessary for their use.

When ordering Proxar Lenses for use with an existing lens it is advisable to furnish your dealer with the whole of the particulars inscribed on your lens mount and to state the outside diameter of the lens hood as well as the amount of the latitude of the available camera extension measured from the lens stop to the ground glass plate.

1) Available also for use with other objectives, provided the diameters of the mounts are suitable.

2) Exact focusing should be done with the ground glass plate and with the actual stop with which the photograph is to be taken.



With your hand camera, say 12×9-cm. you may compose all these picture contents from a single stand-point if to your Tessar you add Proxar and Distar Lenses, whereby at a small cost you may expand it into a comprehensive set.

TESSAR 13,5 + PROXARLINSE 2  
TESSAR 13,5 cm

TESSAR 13,5 + DISTARLINSE 1,5

TESSAR 13,5 + DISTARLINSE 3,5

TESSAR 13,5 + PROXARLINSE 1

Proxar Lenses give you shorter foci, wide angle contents  
Distar Lenses give you longer foci, larger figures.

