

In order to test the objectives as to their state of correction with respect to spherical and chromatic aberration as also to determine the thickness of the cover-glass, the **test plate** is employed.

No. 12 76 10. Test plate after ABBE (pamphlet "Mikro 116").

RM 12.—

Code: *Michauxie*

0.050 kg

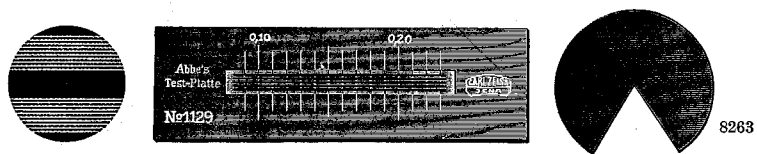


Fig. 1, approx. $\frac{2}{3}$ rd. natural size

Test plate after ABBE with sector plate,
for placing in the diaphragm holder of the illuminator.

The **Numerical Aperture** of the objective is a measure of its resolving power, viz. those particles which are only just perceived through the microscope may be smaller the higher the numerical aperture. On the other hand, a certain minimum magnification is required to render the finest details visible to our eyes. The following practical rule may be derived from these two considerations:

The total magnification for the maximum efficiency of the objective should be approximately 500 to 1000 times the numerical aperture of the objective.

It is the effective or useful magnification thus available which will determine the value of the microscope and not simply its potential magnification.

In order to determine the numerical aperture which is inscribed on all objectives as long as it exceeds the value of 0.1, use is made of the **Apertometer**.

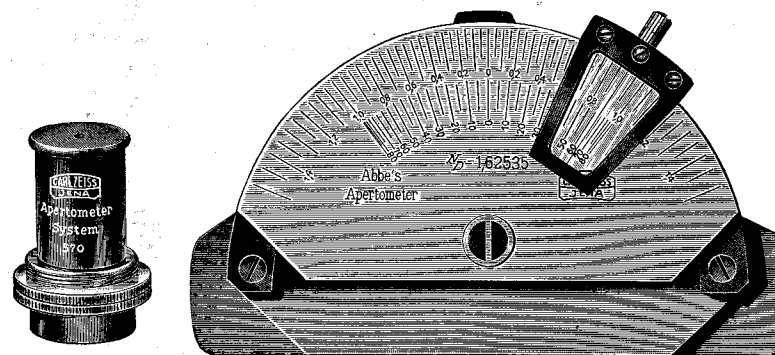


Fig. 2. approx. $\frac{2}{3}$ rd. natural size

No. 11 76 07.

Apertometer with base and apertometer objective in case.

RM 108.—

Code: *Mimadoa*

0.565 kg

For further particulars see pamphlet: "Mikro 114"

Tube length. Our objectives are corrected for a tube length of 160 mm., where no other tube length is inscribed. The tube length may be read by the graduation on the draw tube; in so doing, allowance should be made for nose-piece or intermediate part 15 mm. height, which is included.

Cover-glass thickness. In the case of those objectives where a special reference is made under the heading of "Observations", the cover-glass thickness of the preparations must be carefully observed, as otherwise the quality of the image will suffer heavily. As a rule, our objectives are corrected for a cover-glass thickness of 0.17 mm.

As cover glasses of the correct thickness are not always instantly available, it is commendable to use high-power objectives with a **correction mount**