quantity first introduced by EISENLOHR and called τ in LORENTZ's theory. For cobalt GOLDHAMMER employed the prelimary value $S = 50^0$ with which I furnished him (Wied. Ann. Bd. 47, p. 347). He calculates that according to DRUDE's theory this should be 60^0 and accordingly concludes that DRUDE's theory is in error. This conclusion is wholly confirmed by the now given measurements.

Dr. P. ZEEMAN. *On a subjective phenomenon in the eye.*

When being engaged in measurements on KERR's magneto-optic phenomenon, I noticed, observing with the compensator of Babinet, a phenomenon, the cause of which lies in the eye. Since the phenomenon seems yet to be unknown in physiology, I wish to communicate it here.

Soon I noticed that the complicated apparatus, with which I at first saw the appearance, is not necessary for the observation. The light needs not to be polarized, only a slit is wanted intensely illuminated, while the surrounding of the field is dark na-light being very efficacious

When observing with a telescope one sees, especially during the first moments after suddenly bringing the eye before the eye-piece, not only the illuminated slit but also a blue-violet line of light soon fading.

The phenomenon may be observed as well by looking suddenly with unassisted eye at the slit. The line resembles to the outline of a pear, the axis of which is perpendicular to the centre of the slit. To the right eye the pointed part of the line, i. e. the stem of the pear appears at the right side of the slit, the curved part falling somewhat at the other side.

With the left eye one sees a figure symmetrical to the described one and observing with both eyes the two figures may be seen simultaneously. The inner part of the line is dark as a rule. It is very remarkable that not only yellow light but all colours of the spectrum give the same violet line. It is even possible to observe the appearance, looking at either of the 3 hydrogenium-lines, and only using a common spectroscope of Desaga, the slit being sufficiently widened With the red line the experiment is easy, but with the other rather difficult. The observation succeeds very well with yellow or with white light. We can even observe the phenomenon, though somewhat indistinctly, if we look at a slit made between our two stretched hands, while a lamp is placed behind.

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COMMUNICATIONS

FROM THE

PHYSICAL LABORATORY

AT THE

UNIVERSITY OF LEIDEN

BY

PROF. DR. H. KAMERLINGH ONNES.

No. 6.

Dr. E. C. DE VRIES. Measurements on the influence of temperature on the capillary elevation of ether between the critical state and the boiling-point of ethylene.

(*Translated from: Verslagen der Afdeeling Natuurkunde der Kon. Akademie van Wetenschappen.* **25 Februari 1893.**)

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