OPTICS. - *New results obtained by the experiment of Michelson*. Note ([1])
By **A. PICCARD and E. STAHEL**, transmitted by Mr. Pierre Weiss.

To follow up the recent publications of Miller ([2]) according to which the effect of an ether wind exists in the plain as well as on the Mount Wilson and to complement the results of our own experiences in a balloon ([3]), we have resumed the measures with the same apparatus in our laboratory in Brussels (50° 8' north latitude and 4° 4' east longitude). Miller has an ether wind value of 10 km/sec and a direction which is given by the astronomical coordinates of its apex: right ascension 262°, declination +65°. We have recorded the interference fringes on 25 and 29 November, 1926 at midnight ($23^h\ 50^m$ to $0^h\ 10^m$). At this time the flat projection of the hypothetical ether wind is maximum, that is to say 8.91 km/sec, the apex of Miller being located then at 27° above the horizon. This would correspond in our apparatus to give a fringe displacement of 0.0057 units (unit = distance between two consecutive fringes). We studied 60 whole rotations of the apparatus, which gave us on average a displacement of

$$0.0002 \pm 0.0007 \text{ units},$$

which is incompatible with the result of Miller.

We can therefore say that the ether wind of Miller has not shown in our observations, which, however, have been made at the time where the apex indicated by Miller was near the horizon.

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(1) Meeting of 10 January 1927.

(2) *Science*, **63** 30 April 1926, p. 433.

(3) *Comptes Rendus*, **183**, 1926, p. 420.