shown by the fourth and fifth curves, wherein, after abstracting
the computed motions, the variations of the positions of the marks
from mean positions for the eight years (represented by the straight
lines), was shown. The deviations in these curves, while largely acci-
dental, are similar for the two marks.

There is a distinct change in both marks at the end of 1905, which
may, or may not, be accounted for by an extreme cold spell. The differ-
ence between the average positions of the marks for 1904 and 1905 is
about 0°.05.

The observations in the summer of 1909, and 1910, were mostly in
the daylight, and the positions of the marks may be affected by this fact.

From an examination of some 1,000 observations no difference was
found for the positions of the marks morning and evening.

The variation in the mean azimuth of the two marks from group
to group, for continuous observations, seldom amounted to 0°.02.

This stability of the marks is considered very satisfactory, and as
there is a pronounced variation in the azimuth of the instrument with
daily variations in temperature, there has been a great advantage in
the use of the marks for determining the instantaneous azimuth of the
instrument.

THE SOLAR ROTATION PERIOD FROM MEASURES
OF CALCIUM SPECTROHELIOGRAMS.

BY PHILIP FOX.

This paper gave the final results for the solar rotation values from
measurements of 3811 points on calcium flocculi on 285 plates obtained
with the Rumford spectroheliograph. The plates were measured on
the globe measuring machine described in earlier reports of this work.
The values obtained and, for comparison, the earlier results from meas-
ures of the Kenwood spectroheliograms are given in the following
table. The two series are in excellent agreement.

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<th>ξ</th>
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