

II.—ANNULAR ECLIPSE OF THE SUN, MARCH 14-15.

22- The Diagrams in the margin exhibit the magnitudes of the phases at sunrise, as seen from the several stations, together with their positions relative to the horizon.

This Eclipse will be visible either as an annular or as a partial one throughout Europe, in parts of Western Asia and North Western Africa, and through a large portion of North and South America.

The annular Eclipse will be visible in England at all the points situated on a line extending from Bridport to the Wash. It will be visible also in parts of Norway, Sweden, and a small portion of North Western Russia.

The annulus will be of an extremely small width, and will vanish, and thus render the eclipse total, when viewed from a point near the Island of Madeira.

Throughout Canada the Sun, on March 15, will rise partially eclipsed; but at Halifax the first contact will take place after sunrise. At Quebec and Montreal the obscuration at sunrise will be increasing; but at Kingston, Toronto, and places further west, the obscuration will be diminishing.

The position of the point of contact or of any phase is defined by the angle made with the declination circle through the Sun's centre by the radius of the disc drawn to the point of contact, or the radius that bisects the obscured portion.

The Eclipse, as seen from a point in Lat. $44^{\circ}44'$ N. and Long. $4^{\text{h}}. 14^{\text{m}}. 24^{\text{s}}$ W, in or near Halifax.

First Contact, March 15th... 6h. 26m. 57s. A. M., position S. 23.2° W.
Greatest obscuration 7h. 27m. 2s. A. M., " S. 29.6° E. Magnitude 0.438.*
Last Contact..... 8h. 24m. 56s. A. M., " S. 80.0° E.

* The diameter of the Sun being 1.

The Eclipse from a point in Lat. $46^{\circ}29.2'$ N. and Long. $4^{\text{h}}. 44^{\text{m}}. 48^{\text{s}}$, in or near Quebec.

Phase at Sunrise 0.18 position S. 15.7° W. (obscuration inc.)
Greatest obscuration 6h. 54m. 0s. A. M., " S. 29.0° E. Magnitude 0.417.
Last Contact..... 7h. 50m. 50s. A. M., " S. 86.5° E.

The Eclipse from a point in Lat. $45^{\circ}30'$ N. and Long. $4^{\text{h}}. 54^{\text{m}}. 24^{\text{s}}$, in or near Montreal.

Phase at Sunrise 0.30 position S. 6.8° W. (obscuration inc.)
Greatest obscuration 6h. 42m. 0s. A. M., " S. 29.0° E. Magnitude 0.420.
Last Contact..... 7h. 37m. 7s. A. M., " S. 80.0° E.

The Eclipse from a point in Lat. $44^{\circ}12'$ N. and Long. $5^{\text{h}}. 6^{\text{m}}. 8^{\text{s}}$, in or near Kingston.

Phase at Sunrise 0.41 position S. 6.6° E. (obs. diminishing.)
Last Contact..... 7h. 21m. 12s. A. M., " S. 86.0° E.

The Eclipse from a point in Lat. $43^{\circ}30.4'$ and Long. $5^{\text{h}}. 17^{\text{m}}. 30^{\text{s}}$, in or near Toronto.

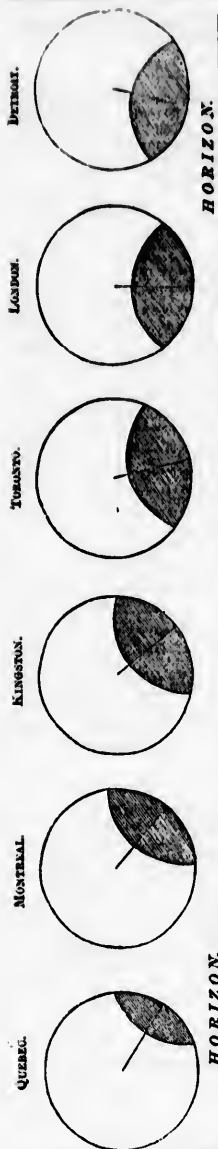
Phase at Sunrise 0.43 position S. 32.7° E. (obs. diminishing.)
Last Contact..... 7h. 7m. 42s. A. M., " S. 86.0° E.

The Eclipse from a point in Lat. $43^{\circ}1.5'$ and Long. $2^{\text{h}}. 25^{\text{m}}. 12^{\text{s}}$, in or near London.

Phase at Sunrise 0.42 position S. 47.3° E. (obs. diminishing.)
Last Contact..... 6h. 58m. 9s. A. M., " S. 80.0° E.

The Eclipse from a point in Lat. $43^{\circ} 24.5'$ and Long. $6^{\text{h}}. 32^{\text{m}}. 6^{\text{s}}$, in or near Detroit, U. S.

Phase at Sunrise 0.38 position S. 60.3° E. (obs. diminishing.)
Last Contact..... 6h. 49m. 39s. A. M., " S. 80.2° E.



PROVINCIAL OBSERVATORY, TORONTO.

Latitude, $43^{\circ}. 39'. 4$ North. Longitude, $79^{\circ}. 23'. 8$ West, or 5 hours, 17 minutes, 33 seconds Slow of Greenwich Time.
Elevation above Lake Ontario, 108 feet. Approximate Elevation above the Sea, 342 feet.

The Provincial Observatory is now attached to the University of Toronto, and is in the charge of Prof. KINGSTON, and three Assistants.