The five last columns, although computed for Toronto, will serve with sufficient accuracy for the whole of Canada.

The time at which the lower transit of the Pole Star occurs may be found by adding 11 h. 58 m. 2 s. to the time of its preceding upper transit.

From the ti[illegible], of the upper transit of the pole star may be found the time of its greatest western or eastern elongation, by adding or subtracting the constants given in the annexed Table.

Latitude	° 42	° 43	° 44	° 45	° 46	° 47	° 48	° 49	° 50
	h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s
Constant	5 53 49	5 53 38	5 53 26	5 53 14	5 53 2	5 52 49	5 52 36	5 52 22	5 52 8

From the times of the upper transit of the Pole Star may be derived, with the aid of the following table, the times of culmination, and of the rising and setting of the principal fixed stars that appear above the horizon of Toronto.

Star Table.

To ascertain when any star found in the following table will be on the meridian, *add* the number in the left-hand column of figures to the preceding meridian transit of the pole star given in the calendar. To find the time of rising of a star, *subtract* the number opposite to it in the right-hand column of figures from the time of its meridian passage. For the *setting* of a Star, *add* the same number to the time of its meridian passage. Those stars marked (.....) revolve in a circle of perpetual apparition, and do not rise or set at Toronto, or at places to the north of Toronto.

Name of Star.	On Meridi'n	Rises and Sets	Name of Star.	On Meridi'n	Rises and Sets
	h m	h m		h m	h m
α Andromedæ	22 50	8 3	γ' Leonis	9 3	7 22
γ Pegasi (Algenib)	23 55	6 56	α Ursæ Majoris	9 46	.....
α Cassiopeæ	23 21	.....	β Leonis	10 38	6 59
β Ceti	23 25	4 43	β Corvi	11 18	4 26
α Ursa Minoris (Polaris)		.....	α Virginis (Spica)	12 9	5 19
β Arietis	0 40	7 21	η Ursæ Majoris	12 33	.....
α Arietis	0 52	7 33	α Bootis (Arcturus)	13 0	7 20
α Ceti	1 47	6 12	β Ursæ Minoris	13 42	.....
α Persei	2 7	.....	β Libræ	14 0	5 25
α Tauri (Aldebaran)	3 20	7 5	α Coronæ Borealis	14 19	7 57
α Aurigæ (Capella)	3 58	11 15	α Serpentis	14 28	6 24
β Orionis (Rigel)	4 0	5 27	β' Scorpii	14 48	4 40
β Tauri	4 9	8 4	α Scorpii (Antares)	15 11	4 7
δ Orionis	4 17	5 57	α Herculis	15 58	6 56
ε Orionis	4 21	5 54	β Draconis	16 17	.....
Columbæ	4 27	3 18	γ Draconis	16 43	.....
α Orionis	4 40	6 26	α Lyræ (Vega)	17 22	9 17
α Canis Majoris (Sirius)	5 31	4 53	α Aquilæ (Altair)	18 27	6 32
ε Canis Majoris	5 45	3 53	α Cygni	18 34	.....
α² Geminor (Castor)	6 17	8 27	α Cephei	20 5	10 48
α Canis Minoris (Procyon)	6 24	6 20	β Aquarii	20 14	5 35
β Geminor (Pollux)	6 28	8 3	α Aquarii	20 48	5 55
α Hydræ	8 12	5 28	α Pis. Aus. (Fomalhaut)	21 39	3 43
α Leonis (Regulus)	8 52	6 49	α Pegasi (Markab)	21 47	6 55

TABLE,

Shewing the Illuminated Portion of the Discs of Venus and Mars.

The numbers given in this table represent the width of the illuminated portion of the Disc measured along the diameter that divides the illuminated portion symmetrically—the apparent diameters being considered as unity.

1857.	Venus.	Mars.	1857.	Venus.	Mars.
January 15.	0 ·700	0 ·956	July 15.	0 ·474	0 ·996
February 14.	0 ·582	0 ·972	August 15.	0 ·628	0 ·998
March 15.	0 ·421	0 ·984	September 15.	0 ·746	0 ·975
April 15.	0 ·165	0 ·994	October 15.	0 ·836	0 ·959
May 15.	0 ·010	0 ·999	November 15.	0 ·906	0 ·939
June 15.	0 ·263	1 ·000	December 15.	0 ·954	0 ·920

Eclipses.

In the year 1857 there will be two eclipses, both of the sun.

I.—A total eclipse of the sun, on March 25, partially visible in Canada West, a little before sunset.

This eclipse will be first seen at sunrise, at a point about 250 miles E.N.E. from Sydney, New South Wales, and will be subsequently seen to commence at sunrise, at a series of points extending along the eastern coast of Australia, northward to New Guinea, and southward to the parallel of 68° south latitude.